



WHAT TRADE AND TAX POLICIES ARE NEEDED FOR THE SUSTAINABLE DEVELOPMENT OF LOCAL MILK VALUE CHAINS IN WEST AFRICA?

PROPOSALS TO THE WEST AFRICAN AND EUROPEAN ACTORS

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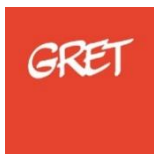
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SUMMARY

THE CONTEXT AND OBJECTIVES OF THE STUDY

The rise of the local dairy sector in West Africa is of great potential importance in terms of jobs, income, the fight against poverty, and the socio-economic development of pastoral and agro-pastoral areas, against a backdrop of increasing conflicts and destabilisation in the region. Development of the local dairy sector is also essential for food and nutritional security, a healthy trade balance and foreign currency reserves. While milk production has risen steadily over the last twenty years, its growth is insufficient to meet the increase in demand. The region's milk self-sufficiency rate, which was 60% at the turn of the century, is now just 41%. If consumption and production continue to grow at the current pace, this rate will fall to only a third in two decades' time.

While imports of milk powders and, in particular, fat filled milk powders (powders made from skimmed milk and vegetable fat, usually palm oil) help to offset the region's shortfall in milk production, which is facing a number of limitations, they also act as a factor hampering the development of the local dairy sector. Local dairy sector actors and civil society organisations have therefore begun working together in the *Mon Lait est local (My Milk is Local)* campaign, and subsequently on the *Regional Platform for the Promotion of Local Milk* and in the ECOWAS states, to agree on the definition of a *Regional Offensive for the Promotion of Local Milk Value Chains in West Africa*. In this context, the aim of this study, commissioned by Oxfam, was to summarise, update and supplement the existing analyses assessing the effects of imports and trade policies on the development of the local dairy sector, as well as existing analyses assessing the effects and impacts of various trade and tax policy decisions. A further aim was to make recommendations for the West African and European actors with a view to achieving the objectives of the Regional Offensive for Local Milk.

THE METHODOLOGICAL APPROACH

The methodological approach is based on a combination of a statistical and literature review; interviews with West African and European actors; country studies in Burkina Faso, Nigeria and Senegal (literature review, interviews with economic and political actors, price surveys, consumer surveys); the construction of simplified commodity chain models (sixteen commodity chains according to product type, type of raw material and whether or not processors are subject to VAT); and simulations of the effects and impacts (production and import volumes, prices, farmers' incomes, added value and jobs, tax revenues, food security) resulting from six options for changes in trade and tax policies, including the gender dimension.

DAIRY COMMODITY CHAINS IN WEST AFRICA AND THE INTERNATIONAL CONTEXT

West African consumption of dairy products and derivatives (fat filled milk powders) consists mainly of fresh liquid milk (mainly in rural areas), yoghurts and curdled milk and imported powders (often repackaged locally). These products are partly manufactured locally and partly imported. In particular, processors can choose between sourcing imported powders or local milk. Imports come primarily from the European Union (EU) and consist mainly of fat filled milk powders, which cost 30% less than whole milk

powder. The global market is marked by the presence of a few major exporters (the EU, the USA and New Zealand) which it to sell their surpluses (10% of global production) and by high price volatility.

THE PROBLEM OF COMPETITION FROM IMPORTS

Because of their price, permanent availability and ease of use, imported powders compete with local milk in terms of processing and consumption, exacerbating the difficulties facing the local dairy sector. In the longer term, against a backdrop of strong demographic growth and changing eating habits, competition from imported powders is tending to increase the region's food dependency, accentuating foreign exchange outflows and making consumers even more vulnerable in the event of a rise in global prices, as was demonstrated by the price surges in 2007-2008 and in 2022.

European actors in the dairy industry are major exporters of milk powders and fat filled milk powders to West Africa. The major groups tend to set up subsidiaries in the region to process or repackage imported powders and, in some cases, to develop local milk supply networks. European policies encourage dumping – which is not recognised by the European authorities – on West African markets through CAP subsidies and the absence of market regulation mechanisms. In addition, the EU supports the establishment of EU-based companies in West Africa and does not discourage imports of palm oil for re-use by European manufacturers. Lastly, it has negotiated Economic Partnership Agreements (EPAs) with West African countries that provide for the complete liberalisation of the region's market for imported powders intended for processing or repackaging.

In the future, the development of European exports of dairy products and derivatives to West Africa will depend on the growth of consumption in the region, the capacity of regional production to cover additional consumption needs, and the development of production and surpluses in the major exporting countries.

THE POLITICAL AND LEGAL FRAMEWORK

Trade and tax policies are influenced by the political and legal framework at both regional and national levels. In particular, the countries in the region have made commitments within the framework of the World Trade Organisation (WTO) and, in the case of Côte d'Ivoire and Ghana, with the EU under two EPAs. ECOWAS member states have a common trade policy (CET). Competition from imported powders is heightened by the low level of protection on the West African market, with a customs duty (Common External Tariff – CET) on bulk powders of just 5%. The strategy document of the *Regional Offensive for the Promotion of Local Milk Value Chains* refers in this context to 'lax trade policies'.

Tax policies are national, but there is some harmonisation within WAEMU and ECOWAS. Some countries, such as Nigeria and Senegal, are implementing specific trade or tax policy measures. The *Regional Offensive for the Promotion of Local Milk Value Chains in West Africa* is set out in a regional strategy and a regional priority investment plan (PIP), which were approved by the member states in 2020. The regional strategy explicitly provides for an increase in the CET and the modification of tax policy.

THE THEORETICAL FRAMEWORK JUSTIFYING THE MOBILISATION OF TAX AND TRADE DEFENCE POLICIES

Trade and tax policies are tools for regulating competition from imports. The study sets out the theoretical framework explaining how trade and tax policies can influence the relative competitiveness of local milk compared with imported powders, and thus stimulate the development of the local dairy sector.

THE POSITIONING OF THE ACTORS

Although the region's states have validated the regional strategy, no concrete decisions have been taken yet. The CET review process in 2024 could be an opportunity to put these guidelines into practice. The country studies carried out in Nigeria, Burkina Faso and Senegal confirm that the actors in the local dairy sector are mostly in favour of ambitious trade and tax policy measures, that the multinational companies involved in processing imported powders are generally opposed to them and that the public authorities are interested in the proposals. However, the authorities express doubts and fears about the effectiveness of such policies in a context where it is not known whether the local dairy sector is capable of developing sufficiently to replace imported powders. They also question the political feasibility (decisions need to be taken at regional level, WTO commitments) and technical feasibility (the risk of fraud), as well as the possible negative effects for consumers.

At the European level, some actors in the dairy sector are wondering about their social and environmental responsibility (SER) with regard to these exports to West Africa. This is true in particular of the French national interprofessional centre for the dairy economy (CNIEL), which has stated its ambition to develop 'responsible' exports. However, European actors in the dairy sector who raise the question of SER mostly talk about the environmental issue. The issue of the responsibility of exporting countries is sometimes raised, but this is from the point of view of the commitment of European subsidiaries to developing local milk supplies alongside the processing of imported powders. European dairy industries are not very concerned about the impact of their exports (and in particular fat filled milk powders), and in some cases take the view that they play a positive role in terms of food security, while continuing their aggressive exports of cheap powders.

Since the early 2010s, a number of farmers' organisations have joined forces with NGOs, and the platform *N'exportons pas nos problèmes (Let's not export our problems)* has been set up in direct collaboration with West African farmers' organisations and the actors in the *Mon lait est local (My milk is local)* campaign. At European Commission level, different positions have been adopted by different Directorates-General. Within DG INTPA, the problem of competition from European milk imports and derivatives with local milk is recognised, but it is emphasised that the West African states have so far not made any requests to the EU in the context of the EPAs, or asked for support for the Regional Offensive for Local Milk. DG Agriculture and DG Trade take the view that European imports contribute to food security overall and do not constitute dumping, as CAP subsidies are classified in the WTO's green box of non-distorting subsidies. In response to civil society campaigns, the EU has recognised the problem of the lack of transparency surrounding fat filled milk powders and created a specific tariff line to identify them. Within the European Parliament, a number of MEPs have taken action on these issues, particularly within the Green group.

THE OPTIONS STUDIED AND THEIR EFFECTS AND IMPACTS

The study simulated the effects of six options for changes in trade and tax policies, based on:

- raising the CET on powders (35% for fat filled milk powder and 10% for whole milk powder, compared with 5% today) and making it more flexible in line with global market prices, both to protect consumers in the event of a spike in prices and to protect local dairy sector actors in the event of a sharp price drop (Option 1),
- the abolition of VAT on fresh milk products (Option 2),
- a combination of the measures in Options 1 and 2 (Option 3),
- a ban on the import of fat filled milk powders (Option 4),
- making the import and use of powders by processors subject to a commitment to incorporate 20% local milk in their products (Option 5),
- a combination of the measures in Options 3 and 4 (Option 6).

The simulations were based on assumptions about the effects of the various options in terms of prices and volumes. While the assumptions inevitably include margins of error, the simulations clearly reveal certain trends in different parameters depending on which option is chosen.

Generally speaking, in a situation of average prices, all the options would make the following possible, in varying proportions, over a five-year horizon:

- An increase in the prices paid to livestock farmers and their incomes as a result of increased demand for local milk.
- A rise in consumer prices in an average year, but with contrasting situations depending on the options and the product concerned (with a higher rise in the price of repackaged fat filled milk powder). The price rises are relatively modest, however, and the average annual cost per consumer increases by no more than FCFA 2,700. Making the CET more flexible, on the other hand, provides better protection for consumers in the event of a spike in global prices.
- Increases in added value and employment. More added value is generated by the local dairy sector than by the import sector. The increase in added value particularly affects rural areas,
- A fall in the volume and cost of powder imports,
- An increase in milk production,
- Increased regional self-sufficiency in dairy products and derivatives,
- A very sharp increase in milk production processed in the formal sector.

The effects on tax revenues vary depending on which option is considered. They tend to be relatively slight because the additional revenue (customs revenue due to the increase in the CET and the substitution of milk powder for fat filled milk powder) is offset by revenue losses (due to the abolition of VAT on fresh milk products, and with lower imports leading to a reduction in customs revenue).

The effects on the development of the local dairy sector and its various positive consequences tend to be more marked with Options 6 and 3, which respectively involve ecombinations of three (CET, VAT, fat filled milk powder ban) and two (CET, VAT) highly complementary measures. The regional self-sufficiency rate would rise to 47% and 46% respectively, compared with 41% today, reversing the historical downward trend. These are also the two options that result in the greatest increases in consumer prices for products made from imported powder, based on a situation of average global prices, but, as we have mentioned, this has a relatively limited average impact on purchasing power. Furthermore, with Option 3, consumer prices for products made from imported powder tend to fall slightly in the event of a surge in world prices, thanks to the flexibility system within the CET.

Options 4 (ban on fat filled milk powders) and 5 (mandatory incorporation of 20% local milk) also have significant effects. The regional self-sufficiency rate would reach 43-44%. With Option 5, consumer prices would change only marginally.

The effects of Option 1 (CET) are less significant, as the increase in the CET alone is not enough to generate a significant change in the actors' behaviour. On the other hand, this option would lead to a significant increase in tax revenues.

Option 2 (VAT) is the option with the smallest impact. This is because a high proportion of local milk products are processed and marketed by actors who not liable for VAT anyway. Moreover, VAT is absent or low in many of these countries and for certain products.

The study presents the impact pathways of the various trade and tax policy measures included in the options and the links with the Sustainable Development Goals (SDGs).

CONCLUSIONS AND RECOMMENDATIONS

In view of the results obtained, it appears that Options 3 (CET, VAT) and 6 (CET, VAT, ban on fat filled milk powder) are the most likely to lead to growth in the local dairy sector. Option 6 appears to be more effective, but is more unfavourable for consumers in a situation of soaring world prices. Compared with the current situation, Option 3 would both stimulate the local sector and protect consumers in a context of surging prices. In countries where VAT has already been abolished or reduced on many dairy products, it would be advisable, in both these situations, to replace the VAT reduction with another equivalent tax measure.

Options 4 (ban on fat filled milk powder) and 5 (making powder imports conditional on the incorporation of local milk) would have significant effects and are therefore also worth discussing. Both options are currently being considered by Nigeria. Option 4 would have a significant impact on consumer prices. Option 5 would benefit from further expert consideration to verify its technical feasibility in countries where importers are not simply processors. The combination of Option 3 and Option 5 has not been simulated, but this is also worth considering.

Whichever option is chosen, recommendations can be made to ensure that favourable conditions are in place to allow its implementation and ensure its success. Most of the recommendations are aimed at West African actors, and some of them are aimed at the European actors.

Regarding the conditions of implementation:

- An increase in the CET would put some countries in breach of their WTO commitments. The countries in the region could argue that, in overall regional terms and taking into account the relative weight of each country's powder imports, an increase in the CET would be well below the regional commitment ceiling calculated in this way. With regard to making the CET more flexible for reasons of consumer food security and protection of the local dairy sector, the countries in the region would have every reason to defend such measures given the economic, social, environmental and security situation and challenges that the region is facing. Raising the CET would pose specific problems for Côte d'Ivoire and Ghana, which have signed EPAs with the EU; a renegotiation would therefore be required with a view to considering all dairy products and derivatives as sensitive products. The non-tariff measures envisaged in some of the options are also contrary to WTO commitments, so a strong political will would be required to defend these.
- As part of its commitment to ensuring that policies remain coherent with development, the EU should facilitate the acceptance of these changes at both WTO and EPA levels.
- With regard to decisions on VAT, it is desirable to include dairy products made from fresh milk as basic necessities (likely to be exempt from VAT) in the ECOWAS common VAT harmonisation framework.
- Given the legitimate fears of political decision-makers, but also the influence of certain economic actors who have no interest in any change in trade and tax policies in favour of local milk in the West African region, it is important that representatives of the local dairy sector, civil society organisations and their allies in the political sphere and the institutions ensure that they have the resources to make a properly substantiated and effective case to the states in the region and also to ECOWAS. Donors, international cooperation actors and multinationals must not be overlooked either, and from this point of view, European actors with an awareness of the issues and a commitment to supporting the West African actors also have a role to play.

Concerning the conditions for success:

- Whichever option is considered, one essential condition for success is the region's capacity for increased milk production, collection and processing. This is why the implementation of trade and tax policy measures must be part of the more general framework for operationalisation of the guidelines in the *Regional Offensive for the Promotion of Local Milk Value Chains in West Africa*.
- In addition, the policy of developing the local dairy sector could have negative effects for certain actors, although these should in fact be strengthened: competition from large industrial companies for supplies of local milk, which would create difficulties for small-scale and semi-industrial businesses in the local dairy sector; the development of industrial farms, which would sideline the development of the agro-pastoral and pastoral areas; and the exclusion of women, who currently play a central role in the production and informal marketing of milk, due to the pro-

spect of more milk being sold in the formal sector. Concerted and inclusive public policies, mobilisation of the actors involved and affirmation of the value of women's work should help to prevent these risks.

- In addition to the policy of boosting the local dairy sector, measures should be taken to promote local milk to consumers and to comply with regulations on product packaging and advertising. More could be done to supply schools and other establishments with local milk, along the lines of what is already being done in various countries in the region.
- For all these reasons, it is desirable for international cooperation, particularly from the EU, to initiate or increase support for the *Regional Offensive for the Promotion of Local Milk Value Chains* in all its dimensions.
- At the same time, actors in the European dairy sector should deepen their SER commitments by fully taking on board the issue of the use of palm oil, since its production contributes directly or indirectly to deforestation and the resulting products (fat filled milk powders) provide strong competition for the local dairy sector in West Africa. The question of banning palm oil imports should also be addressed at a political level, given the foreseeable limits of European regulations on imported deforestation.
- The success of trade policy depends on the existence of complementary measures to avoid a shift towards imported manufactured products that are ready for sale or lower quality, cheaper products. The 35% CET should therefore be applied to other dairy products (processed products, skimmed milk powder). This measure should be extended to all plant-based food preparations that could replace dairy products.

INTRODUCTION: THE CONTEXT AND OBJECTIVES OF THE STUDY

1. THE CONTEXT

The West African region currently imports almost 60% of the dairy products it consumes, although this varies greatly between different countries. Imports are tending to increase year on year, particularly from the European Union. Milk production in the region is growing steadily, but not enough to offset the increase in consumption. At the beginning of the 21st century, imports covered just 40% of consumption. The development of the local dairy sector is of great potential importance for food and nutritional security for local populations, job and income creation (particularly for women, who are often involved in the production, marketing and processing of milk), economic and social development and stability in rural areas where pastoral and agro-pastoral activities predominate. The development of the local dairy sector is also essential to ensure the region's independence from the vagaries of the global market, and limit the vulnerability of consumers. The surge in world prices in 2022 highlighted the vulnerability of countries and regions that rely heavily on imports to feed their populations.

While the local dairy sector¹ is subject to numerous limitations of its own in terms of production, collection, processing and distribution², it also faces competition from imported powders. This competition tends to weaken demand for local milk products from consumers and processors. In particular, it is in the latter's interests to source imported powder rather than local milk, due to the powder's low price and ease of use. This competition is even more severe because most dairy imports in West Africa no longer consist of true dairy products as such, but are powders made from skimmed milk and vegetable fats (mainly palm oil), which on average are 30% cheaper than whole milk powder. The European Union is the main source of these powders, and the price competitiveness of European products is increased by the subsidies paid to farmers; this in turn exerts downward pressure on the price of products in these sectors³.

The flooding of the market with milk substitutes that do not have the same nutritional value as real dairy products (currently these are fat filled milk powders today, and there will probably be even cheaper, low-nutrient products in the future) means that growth in milk production is also a nutritional issue for the West African population.

Since 2015, actors in the local dairy sector and civil society organisations in West Africa have been working together in the *Mon lait est local (My milk is local)* campaign, which led to the creation of the current *Regional Platform for the Promotion of Local Milk*.

In 2018, following the mobilisation of actors in the *Mon lait est local (My milk is local)* campaign, ECOWAS launched a process to define a *Regional Offensive for the Promotion of Local Milk Value Chains in West Africa*, set out in a strategy and investment plans at regional and national level⁴. The aim of this offensive is to 'support all initiatives and strategies for local milk value chains development in the ECOWAS region', in order to 'contribute to the promotion of strategic products for food security and food sovereignty in West Africa'. One of the three expected outcomes is that 'taxation and other regulatory trade defence measures on dairy products and regulatory standards (non-tariffs barriers) are incentives for the local milk value chains development'.

This regional initiative reveals a growing awareness of the need to tackle the issue of competition from imported powders if there is a genuine desire to capitalise on the efforts being made to develop the local dairy sector, both by actors within the sector and farmers' organisations, and also by the public authorities and cooperative bodies.

However, there is also considerable resistance, associated with historical reasons, commitments made within the framework of the World Trade Organisation (WTO) or the Economic Partnership Agreements (EPAs), or fears of negative effects for urban consumers in case of an increase in customs duties. These issues need to be taken fully into account, particularly that of the purchasing power of poor consumers.

A number of countries in the region (notably Nigeria and Senegal) have already introduced trade, tax and foreign investment policy measures in recent years in order to give the local dairy sector better protection against imports. In addition, a number of studies have been carried out on the economic and social impacts of competition from imports, the role of the European Union and its companies, and scenarios for changes in trade and tax policies that could be implemented to boost the competitiveness

¹ In line with the terminology used by the actors involved in the *Mon lait est local (My milk is local)* campaign, in this report we use the generic term 'local dairy sector' to refer to all commodity chains based on milk production in West Africa. The term therefore covers various commodity or value chains in reality.

² For a discussion of the limitations of the local dairy sector, see Broutin Cécile, Levard Laurent, Goudiaby Marie-Christine 2018, p. 58-62.

³ Levard Laurent, Martin Garcia Irene, 2019.

⁴ ECOWAS, 2020-1 and ECOWAS, 2020-2

of the local dairy sector while taking into account the situation of poor urban consumers. These studies have mainly been carried out by GRET, CIRAD and Oxfam⁵. It seems that the time is now right to update these studies, particularly in the light of developments over the last three years, including the COVID epidemic and a surge in global prices for agricultural products which has highlighted even more clearly the risks of excessive dependence on global markets. It seems appropriate to conduct a more detailed study of the measures already taken by certain countries in the region, particularly Nigeria, and to assess the effects of those measures.

With a review of the Common External Tariff (CET) scheduled for 2024, the main purpose of the study is to provide West African public authorities, farmers' organisations and civil society organisations, all of whom are involved in the Milk Offensive, as well as European actors, with updated and consolidated information:

- to assess the effects of imports and trade policies on the development of the local sector, and the impacts in terms of incomes, jobs and food security;
- to evaluate the effects and impacts (volumes, prices, jobs, incomes, food security, tax revenues) of different trade defence and tax policy options at regional or national level, and the conditions for implementing these.

This study is part of the Horizon 2020 *Make Agricultural Trade Sustainable* (MATS) project, which aims to promote the positive effects and reduce the negative effects of trade on sustainable development and human rights. Within this framework, a link is made between policy recommendations and a number of Sustainable Development Goals (SDGs).

2. OBJECTIVES

The general objective of the study stems from the challenge mentioned above. It aims to summarise, update and supplement:

- Existing analyses of the effects of imports and trade policies on the development of the local dairy sector, and the impacts in terms of production and import volumes, prices, farmers' incomes, added value and jobs, tax revenues and food security, taking account of the question of gender.
- Existing analyses of the effects and impacts (volumes, prices, jobs, incomes, food security, tax revenues) of different trade defence and tax options at both regional or national levels, and the conditions for implementing these. The focus is on Burkina Faso, Nigeria and Senegal.
- Recommendations (i) to the West African actors on trade defence policy, tax policies and other complementary measures aimed at facilitating the achievement of the strategy objectives of the *Regional Offensive for the Promotion of Local Milk Value Chains in West Africa*, and (ii) to European actors that support this strategy.

In order to achieve this general objective, the study also aims to achieve the following **specific objectives**:

- To update statistical information on trends in production volumes, in trade (particularly between the European Union and West Africa and the three countries studied) and in the consumption of dairy products and derivatives (fat filled milk powders) in West Africa, as well as in global prices.

⁵ See in particular: Broutin Cécile, Levard Laurent and Goudiaby Marie-Christine, 2018; Duteurtre Guillaume, Corniaux Christian, 2018; Duteurtre Guillaume, Corniaux Christian, de Palmas Aurélie, 2020; Levard Laurent *et al.*, 2019; Levard Laurent, Martin Garcia Irene, 2019; Levard Laurent, 2021; Orasma Tuuli, 2017.

- To pull together existing findings on the effects of imports and trade policies on the development of the local dairy sector in West Africa, and the impacts in terms of incomes, jobs and food security.
- To produce a summary of the various political and legal frameworks for policies relevant to the dairy sectors at national, regional or international level.
- To summarise the various West African actors and their roles, interests and positions on policy questions relating to the dairy sector.
- To update the information available on the progress of the Milk Offensive and existing views in the West African region on the development of trade and tax policies.
- To assess possible changes in the perception of the public authorities and European economic actors regarding the impact of exports and European policies on the development of the local dairy sector in West Africa, as well as the prospects for changes in European policies.
- To propose an analytical framework for identifying the various factors that could influence the future development of exports of dairy and related products from Europe and other parts of the world (particularly New Zealand) to West Africa.
- For each of the three countries Burkina Faso, Nigeria and Senegal:
 - o To identify the types of actors, main actors, commodity chains and products in the dairy (and derivatives) sector.
 - o To analyse the sourcing decisions made by processors and consumers (imported products vs. local products) and the influence of relative prices on these decisions.
 - o For the most representative dairy commodity chains, to build a simplified model to monitor price levels throughout the chain, adapting the simplified models already built by GRET for Senegal.
 - o To identify the tax and trade protection measures, as well as those relating to investment and the development of the local commodity chain in the dairy sector, that have already been introduced by public authorities at the national level, and any effects of these that can already be detected.
 - o To test the possible effects of different trade defence and tax policy options (changes in prices, sourcing decisions) on different actors, identifying the main causal links.
 - o To simulate the possible short-, medium- and long-term impacts of the different options in terms of prices, incomes, consumer purchasing power, tax revenues, the development of the local dairy sector and food security, taking gender considerations into account.
 - o To specify the feasibility and implementation conditions (operational scenarios) for the various options.
 - o To put forward the provisional conclusions for discussion with the actors of the *Regional Platform for the Promotion of Local Milk*.

The study therefore aims to contribute to the reflections and discussions among West African actors within the framework of the *Regional Platform for the Promotion of Local Milk* and the *Offensive for the Promotion of Local Milk Value Chains in West Africa*, as well as of the European actors who are committed to supporting these initiatives.

I. METHODOLOGICAL APPROACH

The study is based on various methodological approaches. It was structured in three phases.

The **first phase** of the study combined a statistical review, a literature review and semi-open and remote interviews with various actors in West Africa and Europe:

- The updating of existing statistics, drawing on the statistical databases of the FAO, the European Union, Trade Map and websites specialising in the dairy sector (ComExt and BACI).
- A literature review to pull together existing analyses and findings relating to the dairy commodity chains in West Africa, the effects of imports and trade policies on the development of the local dairy sector in West Africa, the impacts in terms of incomes, employment, food security and gender equality (causal links, impact pathways), the key actors and their roles, interests and positions (including opposing positions), and the national and supranational legal and political frameworks governing or influencing trade and agricultural policy decisions (including the mapping of the political economy of the various parties involved). A draft version of the MATS project case study on production, standards and competitiveness in global dairy markets was also revised⁶.
- Interviews with key actors in the Milk Offensive and the platform on developments in the dairy sector over the last two years, the progress made by the Milk Offensive and current views in the region on the development of trade and tax policies.
- Interviews with representatives of the European Commission, the European Parliament, civil society actors (in particular those involved in the *N'exportons pas nos problèmes (Don't Export Our Problems)* campaign) and European economic actors with a view to assessing any changes in perception regarding the impact of exports and European policies on the development of the local dairy sector in West Africa, as well as the prospects for changes in European policies in the new global and European context (the effects of COVID, price rises, the war in Ukraine, the Farm to Fork Strategy, etc.).
- The identification of policy options to be evaluated in Burkina Faso, Nigeria and Senegal, in conjunction with the study's steering committee.

The **second phase** of the study corresponds to the country studies in Burkina Faso, Nigeria and Senegal, and the use of the results of these studies to produce simplified commodity chain models and simulate the effects of different policy options.

The country studies combined literature study, semi-open interviews with national members of the Regional Platform for the Promotion of Local Milk and with political actors (Ministries of Trade, Finance and Livestock), economic actors (large, medium and small enterprises, including cooperatives) and representatives (agricultural, trade union and interprofessional organisations), price surveys, targeted interviews with a sample of consumers, and discussion of the provisional results with a selection of actors. In Senegal, the study was streamlined because it was a simple update of the study carried out in 2021⁷. More specifically:

- The objectives of the literature review and interviews were to:
 - o specify certain characteristics of the dairy sector (and in particular prices at the various levels and the cost structure of the commodity chains), with a view to providing inputs for modelling of the various chains;
 - o assess the effects of competition from imports;

⁶ Menghi Alberto, 2023.

⁷ Levard Laurent, with the contribution of Dr Dia Serigne Moussa, 2021.

- identify the roles, interests and positions (including opposing positions) of the key actors, including a gender approach;
- identify national policies concerning dairy commodity chains (in particular the measures envisaged in the national PIPs of the Milk Offensive, concerning tax policies, subsidies for farmers and trade defence), estimate any initial effects observed and find out the actors' views (feasibility, conditions for implementation, possible short- and medium-term effects, any initial results observed);
- find out the position of the actors on the measures envisaged by the Milk Offensive (feasibility, conditions for implementation, possible short- and medium-term effects);
- find out the position of the actors on any other actions (feasibility, conditions for implementation, possible short- and medium-term effects, any initial results observed).

The in-country interviews were also intended to sound out the reactions of the economic actors to the various options being considered, to help shape the assumptions relating to these options.

Specific interview guides were prepared in advance for each type of actor.

- Price surveys were conducted among economic actors (purchase price of raw materials, sale price of products (producer price, factory gate price)) and directly at points of sale (markets, supermarkets, shops, direct sales). For Burkina Faso and Senegal, a comparison was made with surveys carried out a few years ago.
- Twenty or so random interviews with consumers (closed questionnaire, ten minutes per interview) were carried out at three different points of sale in order to gain a better understanding of consumer choices and assess the price elasticity of consumption and the phenomenon of substitutions between products. The size of the study meant that it was not possible to have a larger sample and obtain statistically representative results. However, these interviews helped to verify certain assumptions about consumer choices and to evaluate the effects of different options more accurately.

The provisional conclusions were shared and discussed with the actors contacted during the study. A country report was produced for each of the countries studied.

The **simplified commodity chain models** involved modelling the price throughout the chain of a specific volume of dairy product (in this case the equivalent of a litre of milk) and the various costs and margins obtained for the same volume, using an Excel spreadsheet. These data were therefore listed and in some cases calculations were performed and links made between them;

- from the farmer's production costs and the price paid to the farmer through to the price paid by the consumer, in the case of a local dairy sector,
- from the price of the whole milk powder or fat filled milk powder at the European port of export through to the price paid by the consumer, in the case of a commodity chain using imported powder.

This modelling was based in part on the template produced for Senegal in a previous study⁸ and on data (prices and cost structures) obtained from interviews with economic actors and direct consumer price surveys in the various countries studied, as well as on data relating to global prices (ex European port prices). The prices recorded were those for July 2023 (we estimated that this corresponded to the global price in April 2023, taking into account transport and storage delays). Within a few percentage points, these prices also corresponded to the average for the years from 2018 to 2021, i.e. excluding 2022, which

⁸ Levard Laurent, with the contribution of Dr Dia Serigne Moussa, 2021.

was an atypical year given the unusually high global prices that prevailed for much of the year. The prices used in the model therefore provided a good reference situation, corresponding to an average year in terms of milk and dairy product prices.

In total, sixteen types of commodity chain were modelled, selected according to the type of end product (yoghurt, pasteurised milk, whole milk powder or fat filled milk powder repackaged in the country), the type of raw material used (local milk, whole milk powder or fat filled milk powder) and the tax regime applied to processors (whether or not they are subject to VAT)⁹. Table 1 shows the different combinations resulting in the sixteen chains.

Table 1 - Characteristics of the sixteen commodity chains modelled

		Tax system applicable to the processor or reconditioner	final product			
			Yoghurt/curdled milk	pasteurised milk	Reconditioned whole milk powder	Reconditioned fat-filled milk powder
Raw materials used	Local milk	Subject to VAT	X	X		
		Not subject to VAT	X	X		
	Whole milk powder	Subject to VAT	X	X	X	
		Not subject to VAT	X	X	X	
	Fat-filled milk powder	Subject to VAT	X	X		X
		Not subject to VAT	X	X		X

For the same type of product and within the same country, prices can differ depending on the type of distributor and the point of sale, the area (urban or rural), and the packaging (volume, packaging materials, labelling). In some cases, significant price differences can also be seen between countries, and the tax system may also differ from country to country. Due to limited time and resources, a single set of models was produced for the entire region, based on an average of the data collected in the three countries¹⁰. However, there is a general consistency among the prices and price hierarchies observed in the different countries.

The assessment of effects and impacts (production and import volumes, prices, farmers’ incomes, added value and jobs, tax revenues, food security) **of different policy options** was based on simplified commodity chain models, incorporating:

- the mechanical effects resulting from the implementation of these options (increase in the CET, scrapping of VAT, non-tariff trade measures);
- assumptions about the behaviour of the actors (choices made by processors concerning sourcing of raw materials, price transmission following a change in the purchase price of raw materials, product substitution choices by consumers);
- elasticity assumptions (price elasticity of output delivered to processors, demand elasticity of milk production related to demand from processors).

Impact pathways, linked to the SDGs, were constructed for the various measures included in the options studied.

The **third phase** of the study involved drawing up conclusions and recommendations, drafting the provisional report, discussing it with the steering committee, finalising the definitive report and drafting a four-page policy document.

⁹ In the models constructed, however, the end distributors are always subject to VAT.

¹⁰ In some cases, additional data collected in other countries in the region (Mali and Niger) as part of previous studies were taken into account.

II. DAIRY COMMODITY CHAINS IN WEST AFRICA AND THE INTERNATIONAL CONTEXT

The production and marketing of local milk are an integral part of the national economy and the way of life of rural farming families in West Africa, particularly in the three countries studied, and they are of vital importance to the region in terms of:

- employment, incomes, the fight against poverty and vulnerability among populations (especially rural populations) and the socio-economic development of pastoral and agro-pastoral areas. Poverty and insecurity levels are often high. Young people, who aspire to better working and living conditions than their parents, often seek to leave. The development of dairy production and commodity chains can help to generate jobs and substantial additional income, as well as contributing to the agro-ecological transition of agro-pastoral areas (restoring soil fertility through the use of organic manure), thereby improving agricultural yields and income from crops. This issue is important not just for pastoral and agro-pastoral areas, but for the whole region and its stability in a fragile social and security context;
- food supplies in relation to the global market. At a time when the population and dairy consumption are both set to rise sharply over the next few years, and when soaring global prices in 2007-2008 and 2022 have highlighted the risk of over-dependence on the global market, this is also a global food security issue;
- a healthy trade balance and appropriate foreign currency flows;
- nutrition. Increased milk production can help to improve the quality of people's diets, particularly for pregnant women and young children (protein, calcium, magnesium and vitamin intake).

Livestock farming accounts for a significant proportion of the gross domestic product of several countries in the region (figures). Livestock products account for 35% of primary sector GDP in Burkina Faso, 28% in Mali, 30% in Niger and 28% in Senegal¹¹.

1. CONSUMPTION, PRODUCTION, IMPORTS OF DAIRY PRODUCTS AND DERIVATIVES, DAIRY SECTOR FLOWS

The dairy products consumed originate partly from domestic milk production and partly from imports. The purpose of this section is to highlight the changes over the last twenty years in the proportion of West Africans' diets accounted for by the main sources of milk: local cow's milk, imported whole milk powders and imported fat filled milk powders (Box 1).

A knowledge of these changes is essential to provide guidance for dairy commodity chains. The main difficulty concerns the availability of reliable data enabling comparisons to be made between countries. This is particularly true for production data. West African countries (ECOWAS + Mauritania) do not have accurate, guaranteed data. We did base our analysis on the FAOSTAT database, but readers are advised to be cautious about jumping to conclusions. The import data come from the BACI database. In the absence of a global customs code (this only exists for the EU, and only since 2020), specific identification of vegetable fat milk powders is not possible, despite the fact that they represent the majority of this

¹¹ ECOWAS, 2017 and ANSD, 2016.

food group in West Africa¹². Data from the BACI database can therefore be used to identify import trends¹³ for dairy products as a whole¹⁴ in all West African countries, from all regions of the world.

Box 1: Definition of vegetable fat milk powders or ‘fat filled milk powders’

This product first appeared on the West African market in the early 2000s under the names ‘*fat-filled milk powder*’ or ‘*milk powder enriched with vegetable fat*’. It is in fact a milk substitute. It is obtained either by first blending liquid skimmed milk and liquid fat (to make an emulsion) and then drying the mixture, or by ‘injecting’ the two liquids (vegetable fat and skimmed milk separately, with two inlets in the drying equipment) which then dry at the same time to produce a single powder (the co-drying technique: the vegetable fat and skimmed milk are mixed at the time of drying). Various vegetable fats are used. Palm oil is by far the most common today, but other oils such as coconut oil are also used. At international level, these products are defined by standard CXS 251-2006, drawn up by the Codex Alimentarius Commission. According to this standard, they are not dairy products in the strict sense. The Codex recommends using the expression ‘*a blend of skimmed milk and vegetable fat in powdered form*’ to describe a product that is improperly described as ‘*fat filled*’ in industry jargon. We follow these recommendations in this report by referring to these products as ‘*vegetable fat blends*’, ‘*vegetable fat milk powders*’ or simply ‘*fat filled milk powders*’. They should not be confused with drinks described as ‘*plant milks*’ (such as soya milk or almond milk) or the ‘*creamers*’ sold on the market.

a) Milk production

In West Africa, dairy products are made from cow’s, sheep’s, goat’s and camel’s milk. The proportions depend on the numbers of animals in each milk-producing species and the production systems used in the various regions. There is an extensive literature describing production systems, their productivity and their links with the development of dairies in West Africa. It must be remembered that as a general rule, and particularly in pastoral areas, the main product is meat. However, milk production helps to feed the families of farmers, and often provides them with a regular income throughout the year. Semi-intensive and intensive livestock farms specialising in milk production are also developing near towns and cities.

In 2021, according to the FAOSTAT database, milk production in West Africa (ECOWAS and Mauritania) was around 5 million tonnes: 3 million tonnes of cow’s milk, 1 million tonnes of goat’s milk and 0.5 million tonnes each of sheep’s milk and camel’s milk (see Figure 1). This output is constantly rising. The increase in productivity does not go far towards accounting for this rise, as it is slight and sporadic, only occurring around a few collection areas. Most of the increase in production is due to the rise in the number of animals. The main producing countries are Niger, Mali, Nigeria, Burkina Faso and Mauritania (see Figure 2). These five countries account for four-fifths of output. The effects of armed conflict and the destabilisation of communities in pastoral and agro-pastoral areas have so far not been perceptible, but there are reasons to believe that such effects could be seen in the future.

¹² Corniaux Christian *et al.*, 2023.

¹³ Within total imports, re-exports within West Africa account for less than 4% of volumes, half of which comes from Senegal.

¹⁴ For the consumption calculations, we excluded infant formulas and milk ingredients (lactose, lactoserum, etc.). We also excluded butters and creams to avoid counting milk several times (in Milk Eq.). The following products are therefore included in the consumption of imported products: liquid milks, flavoured milks, condensed milks, yoghurts, cheeses, whole milk powders, skimmed milk powders, vegetable fat milk powders.

Figure 1: Milk production (in tonnes) by species in West Africa (ECOWAS + Mauritania) - Source: FAOSTAT

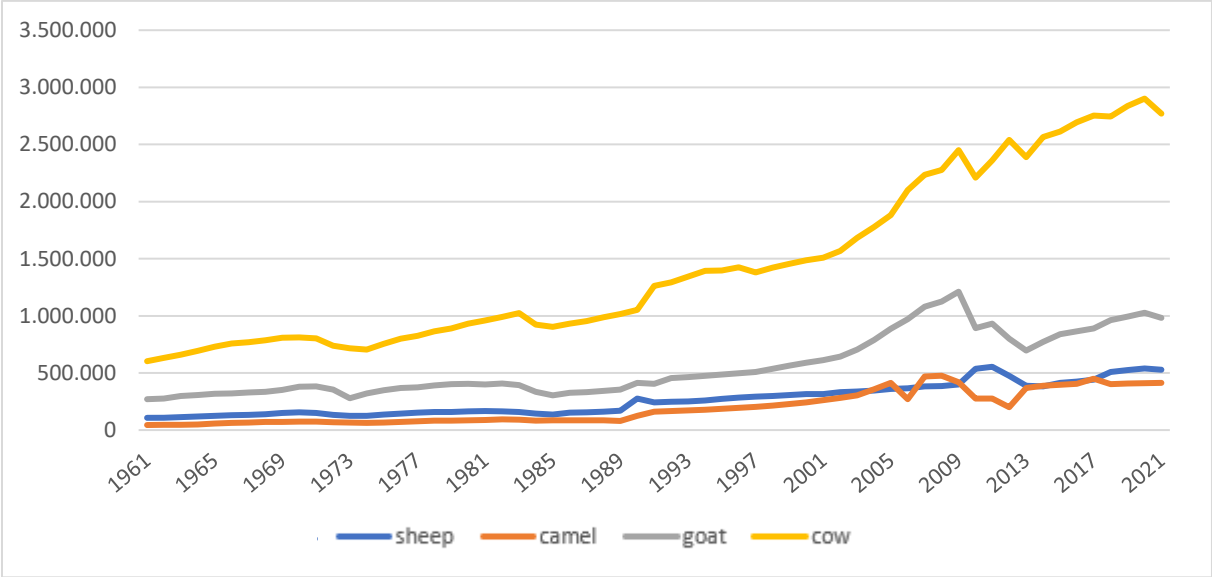
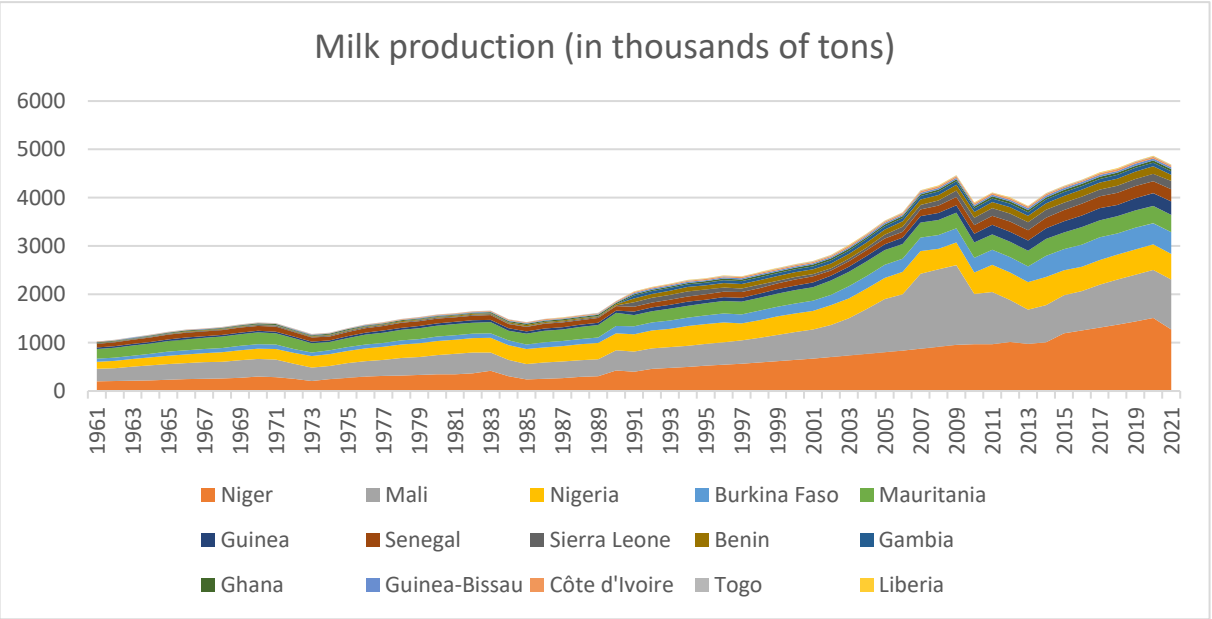


Figure 2: Milk production in West Africa (ECOWAS + Mauritania) (in thousands of tonnes) - Source: FAOSTAT



Notes on Figures 1 and 2: the drop in production in 2010 is mainly due to the fall in goat's milk production in Mali. This may reflect a statistical correction or a reality on the ground. In addition, the reductions observed in the last year for which data are available (2021 here) should be treated with caution, as this is a frequent phenomenon in the datasets provided by the FAO, with adjustments being made subsequently.

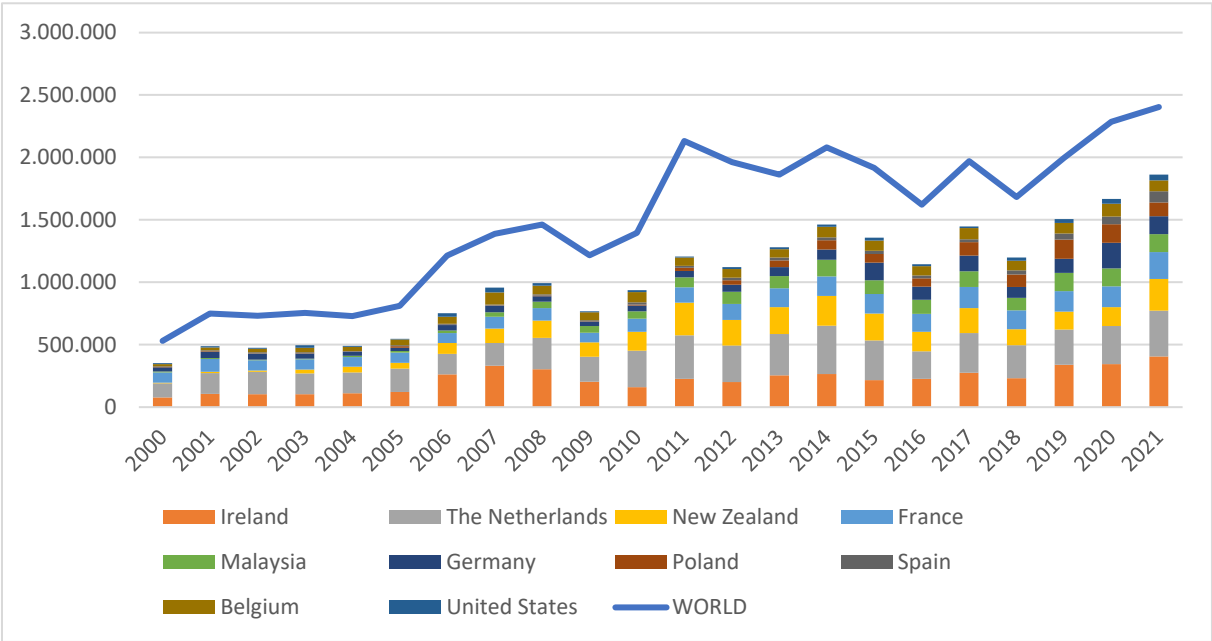
While most of the milk produced is consumed by the farmers' families themselves (it is estimated that over 80% of output is consumed in this way), some of it is also sold on the market, mainly through local sales of raw milk and products processed by women (small-scale processors). Most of these products are sold on rural markets and urban markets. A very small proportion of output is formally collected by

dairies (estimated at 2% by Oxfam on the basis of the CIRAD study, 2018¹⁵). Only the data on the industrial sector and small milk plants can be used to estimate the contribution of the local sector in terms of income and jobs downstream of production. However, these data are very incomplete¹⁶.

b) Imports: origins and destinations

Population growth, urbanisation and the growing purchasing power of the middle classes are leading to an increase in demand for dairy products. In response to this buoyant market, government support to boost local production has proved wholly inadequate. Although regional production has increased, it is still lower than consumption needs overall. The bottom line is that every West African country has a milk deficit and imports dairy products, 63% of which by value came from the European Union in 2021 (see Figure 3).

Figure 3: Trends in imports of dairy products into West Africa by country of origin (in €k) - source: BACI



With over 200 million inhabitants, or half the population of West Africa, Nigeria is by far the largest importer. It is followed by Senegal, Côte d'Ivoire, Mali, Ghana and Mauritania, which all have strong dairy industries (see Figure 4). Imports in those countries primarily cover the needs of urban consumers and the commercial share of milk consumption. Imports have been rising in all countries for decades, and accelerated in the 2000s. The change has mainly been towards more imports of milk powders, especially vegetable fat milk powders. This cheap raw material is gradually replacing whole milk powder in terms of both value and, more importantly, volume (see Figure 5). Senegal and Nigeria are the main importers, with 91,000 and 121,000 tonnes respectively in 2021. Most of the imports of this raw material come from Ireland, Malaysia¹⁷, the Netherlands and Poland.

¹⁵ Corniaux Christian, Duteurtre Guillaume, 2018

¹⁶ Broutin *et al.*, 2018; Oraasma *et al.*, 2022

¹⁷ Malaysia is a major producer of palm oil, but not of milk. As confirmed by the BACI data, Malaysia imports large quantities of milk powders, particularly from New Zealand, and fat filled milk powders from Singapore (whose skimmed milk powder component comes from New Zealand). It then re-exports fat filled milk powders to West

Figure 4: Imports of dairy products into West Africa (ECOWAS and Mauritania) in 2019 (in €k) - Source: BACI.

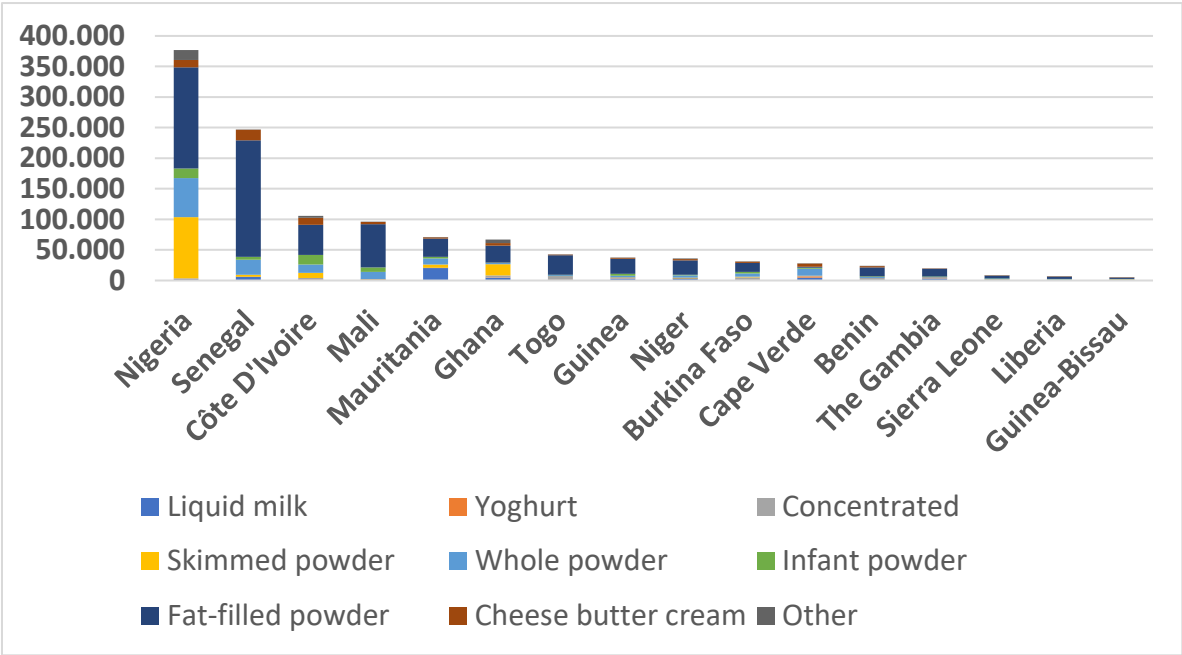
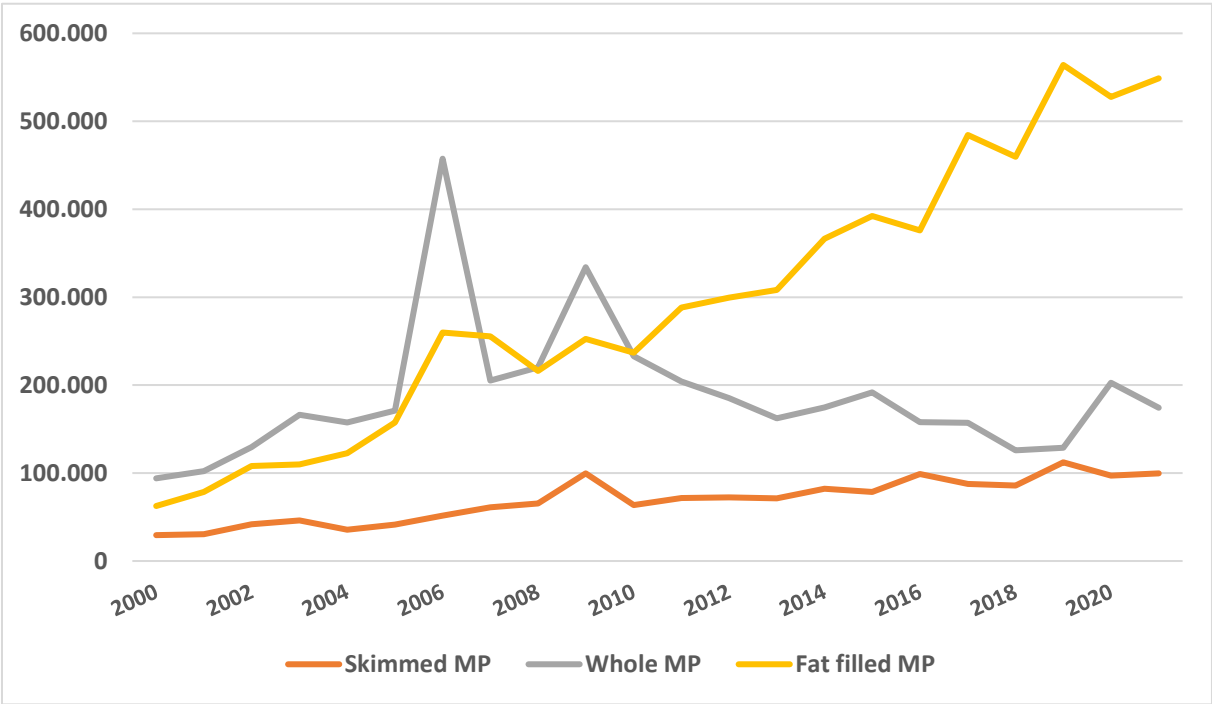


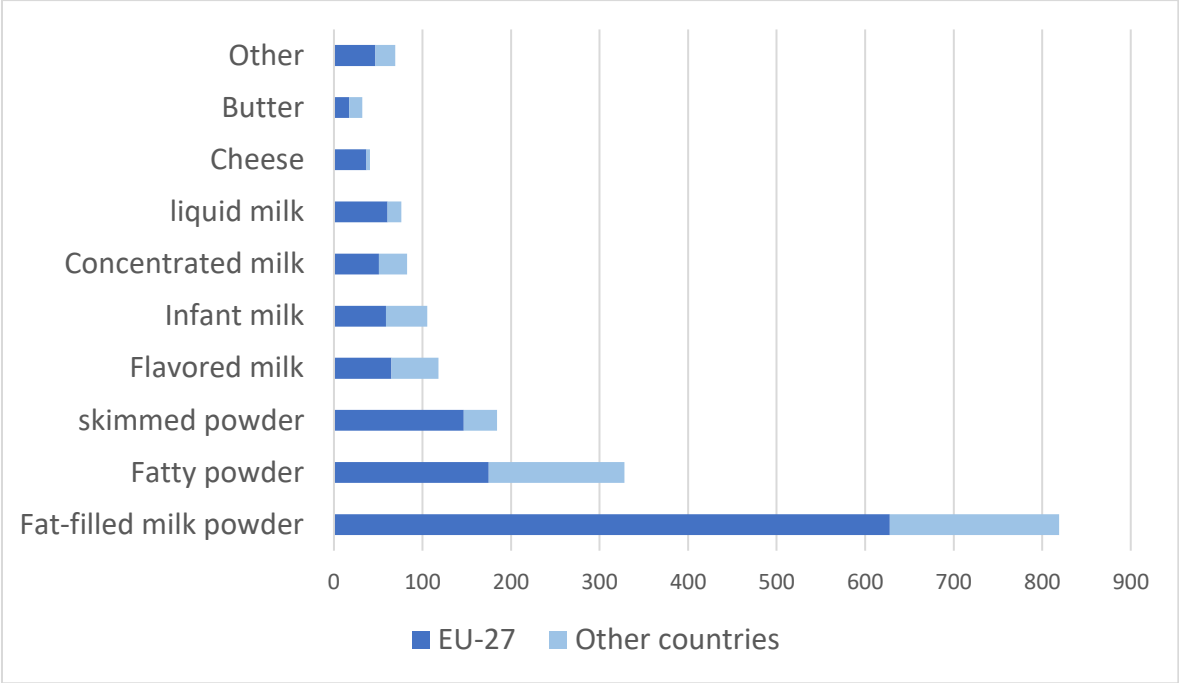
Figure 5: Milk powder imports into West Africa (ECOWAS + Mauritania) (in tonnes) - Source: BACI



More than three-quarters of fat filled milk powder imports come from the European Union. These represent 49% of European exports of dairy products and derivatives to West Africa in terms of value, but a much higher proportion in terms of volume (see Figure 6).

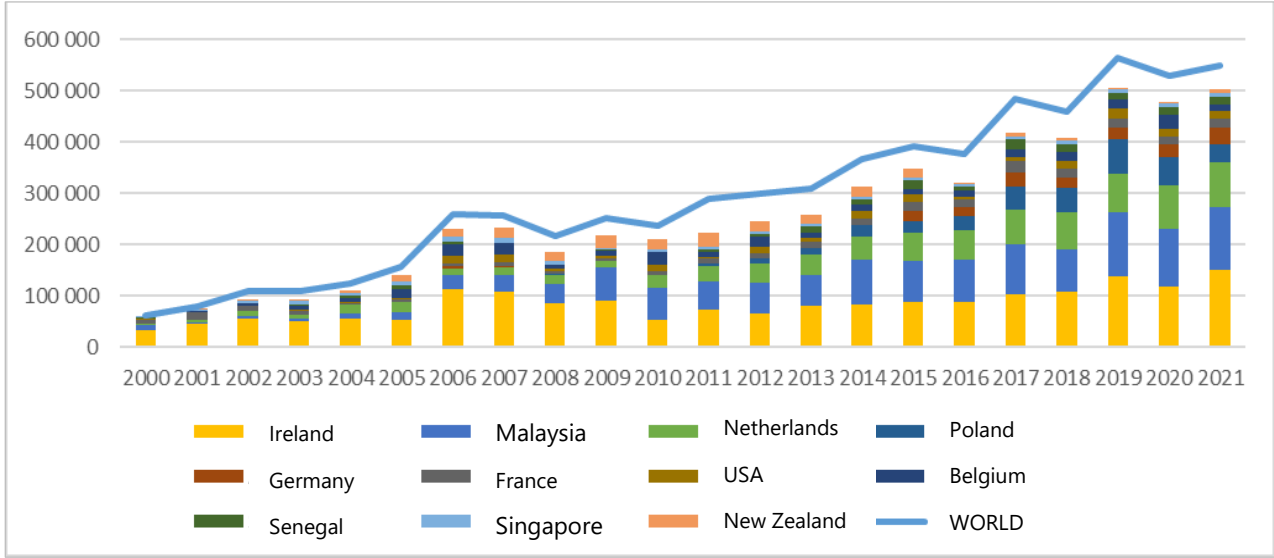
Africa. In other words, while New Zealand does not feature very prominently in the statistics for West African imports of fat filled milk powders, it plays a key role through imports from Malaysia.

Figure 6: Dairy products imported into West Africa (ECOWAS and Mauritania) in 2019 by origin (in €k) - source: BACI



These European exports of fat filled milk powders to West Africa have risen sharply since the early 2000s (see Figure 7).

Figure 7: Development of milk powder imports into West Africa (ECOWAS and Mauritania) in tonnes - source: BACI



c) Dairy sector balance sheet and dairy product consumption in West Africa

Per capita consumption of dairy products (including vegetable fat milk powders) in West Africa remains low overall at less than 30 kg per year (Table 1); this is below the WHO recommended per capita consumption¹⁸ of 70 to 90 Eq kg per year. However, there are major differences between countries (see Tables 2 and 3).

Table 2: Change in the share of different dairy products in West African consumption from 2000 to 2021 - sources: FAOSTAT, BACI

		volume (in billion l EqMilk)			%		
		2000	2010	2021	2000	2010	2021
Local production	Cow milk	1,49	2,21	2,9	34,1	25,9	24,3
	Other milk	1,15	1,7	1,98	26,3	20,0	16,6
Imports	Other imports	0,34	0,56	0,81	7,8	6,6	6,8
	Skimmed milk powder	0,22	0,48	0,76	5,0	5,6	6,4
	Whole milk powder	0,71	1,77	1,33	16,2	20,8	11,1
	Fat filled milk powder	0,46	1,8	4,17	10,5	21,1	34,9
Total production		2,64	3,91	4,88			
Total imports		1,73	4,61	7,07			
Total consumption (in billions l Eq lait)		4,37	8,52	11,95			
% of coverage		60,4	45,9	40,8			
Total population (in millions)		237	313	419			
Individual consumption (l EqMilk/capita)		18,4	27,2	28,5			

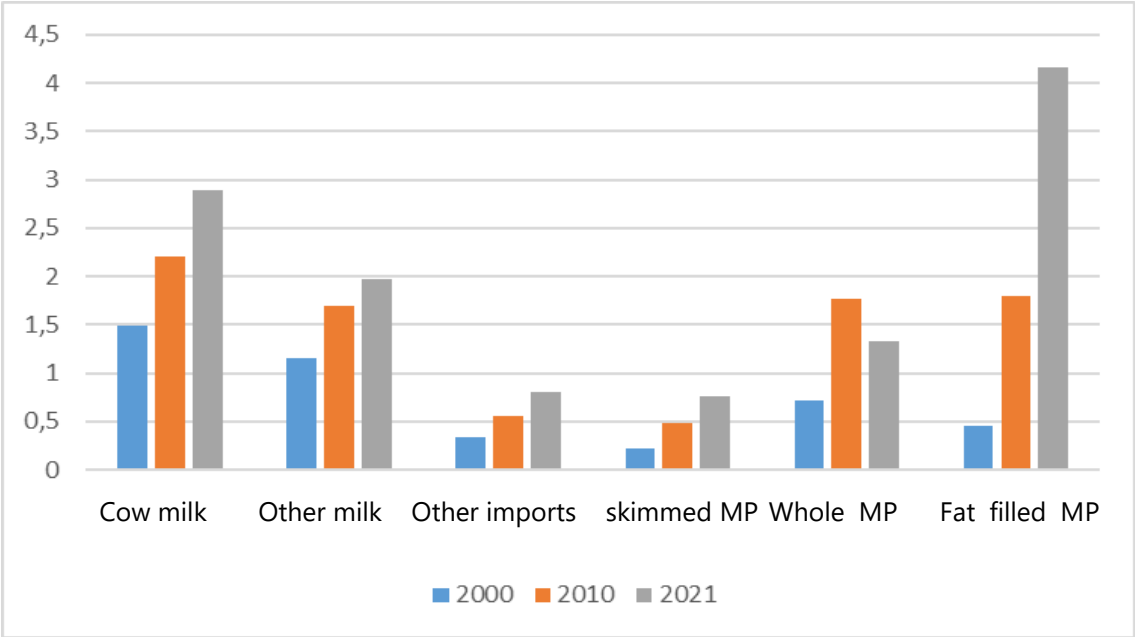
Table 3: Change in the share of different dairy products in the consumption of the populations of Burkina Faso, Nigeria and Senegal from 2000 to 2021 - sources: FAOSTAT, BACI

		volume (in ton EqMilk)								
		Burkina Faso			Nigeria			Senegal		
Year		2000	2010	2021	2000	2010	2021	2000	2010	2021
Local production	Cow milk	74 192	129 861	211 200	389 000	444 668	531 587	100 601	155 822	222 222
	Other milk	129 024	172 066	234 470	-	-	-	21 958	25 439	26 647
Imports	Other imports	6 597	19 262	52 683	49 246	141 389	43 192	13 319	29 317	73 797
	Skimmed milk powder	3 010	3 762	33 668	125 263	307 883	377 674	5 054	3 572	48 822
	Whole milk powder	24 496	31 692	27 299	227 025	1 070 065	680 892	133 509	172 923	113 217
	Fat filled milk powder	17 085	38 859	83 007	149 530	589 152	923 833	97 880	128 060	688 644
Total production		203 216	301 927	445 670	389 000	444 668	531 587	122 559	181 261	248 869
Total imports		51 188	93 575	196 657	551 064	2 108 489	2 025 591	249 762	333 872	924 480
Total consumption (in ton l Eq lait)		254 404	395 502	642 327	940 064	2 553 157	2 557 178	372 321	515 133	1 173 349
% of coverage		79,9	76,3	69,4	41,4	17,4	20,8	32,9	35,2	21,2
Total population (in millions)		11,9	16,1	22,1	122,9	160,1	213,4	9,7	12,5	16,9
Individual consumption (l EqMilk/capita)		21,4	24,5	29,1	7,7	15,9	12,0	38,4	41,1	69,5

Driven by demographic growth – the population has almost doubled in twenty years – overall milk consumption in West Africa has risen sharply (see Figure 8 and Table 2). It has almost tripled from around 4.4 billion litres of milk equivalent in 2000 to almost 12 billion in 2021. Demographic growth is a key factor in this increase, but it is not the only one. Per capita milk consumption rose from 18.4 kg of milk equivalent per year to 28.5 kg per year. Urbanisation and the emergence of a middle class (especially in Nigeria) are other factors. There has also been an explosion in imports of vegetable fat milk powders, which are cheaper than local milk and imported whole milk. In twenty years, the share of these vegetable fat milk powders has risen from 10.5% to 34.9% of milk consumed, while the share of milk powder has fallen steadily (from 16.2% to 11.1%) and the share of each category of locally produced milk has lost 10 percentage points (see Table 2).

¹⁸ However, this recommendation no longer appears in official WHO texts.

Figure 8: Estimated consumption of different types of milk in West Africa (ECOWAS and Mauritania) in 2000, 2010 and 2021 (in billions of litres of milk equivalent)



Notes: excluding infant formula, dairy ingredients, butter and cream. Coefficients used: 7.6 for powders, 2 for condensed milks, 10 for cheeses, 1 for yoghurts, 1 for liquid or flavoured milks. 'Cow's milk' = milk collected in West Africa. 'Other milks' = goat's, sheep's and camel's milk collected in West Africa. All 'powders' are imported.

This trend varies from country to country (see Table 3). In Senegal, for example, there has been a clear explosion in the use of vegetable fat milk powders, while in Burkina Faso local production continues to dominate and imported whole milk powder remains important in Nigeria. We should also note the collapse of condensed milks (especially in the countries of the Sahel) and the growth in imported flavoured milks.

Ultimately, fat filled milk powders are clearly replacing whole milk powders (via manufacturers and wholesalers). We also note that local production, although increasing in absolute terms, is struggling to keep pace with the strong growth in consumption. Of course, there are problems upstream, but it is legitimate to wonder about the negative effect of imports of vegetable fat milk powders on the development of milk collection, particularly in view of the price differential between the two raw materials (see Section III).

In the future, demand for dairy products is set to continue rising in the region, as a result of population growth and changes in the consumption patterns of part of the population. At the current rate of production growth, which is insufficient to meet this increase in demand, an increase in imports can be expected. Yet there is considerable potential to increase milk production in the region, which would make it possible to respond to a number of fundamental economic, social and ecological needs for the countries in the region, particularly in pastoral and agro-pastoral areas (see above on the potential importance of milk production). In addition, imports of whole milk powder could continue to be replaced by fat filled milk powders, due in particular to the growth in demand for animal fats (butter) in developed and emerging countries and the competitiveness of fat filled milk powder compared with whole milk. This means that competition from imports for the local dairy sector is likely to grow fiercer unless an ambitious policy is implemented to improve the competitive situation for this sector.

2. PRODUCTS, RAW MATERIALS AND ACTORS IN THE DAIRY COMMODITY CHAINS, AND PRICE LEVELS

a) Dairy products and raw materials for processing

- When analysing the dairy sector, we need to distinguish between:
- A variety of consumer products – mainly liquid milk (raw, boiled, pasteurised, UHT), fermented milks (yoghurts, various types of curd, often mixed with cereals), whole milk powder and vegetable fat milk powders. Other products are also consumed (butter, cheese and cream). Most of these products can be imported or manufactured locally. Milk powder and fat filled milk powder are entirely imported; a large proportion is imported in bulk (in packs of 25 kg or more) for repackaging in the region into packs for sale to consumers.
- A wide range of raw materials used to manufacture products, essentially fresh milk, whole milk powder and fat filled milk powder. These different raw materials come from completely different origins: fresh milk is local, while powders are imported.
- A range of actors are involved from import or production through to sale. The 'local milk' sector consists of farming families as a minimum, but it may also include collectors, processors, traders and distributors. The import chain consists of the importer and the distributor as a minimum, but it may also include processors, powder repackagers and traders. Importation is sometimes done directly by processors, repackagers or distributors.

In this study, we are focusing solely on a detailed examination of the formal channels leading to the distribution of pasteurised milk and yoghurt or curd, as well as the distribution of whole milk powder and repackaged fat filled milk powders. These are the main processed (and repackaged) products consumed in the region, while the vast majority of regional production (80-90%) goes to consumers in the form of raw or boiled milk, or is directly processed into curd. Some of the production is also traded (again in the form of liquid milk or curd) in the informal sector.

b) Product prices in the commodity chains studied

For the same type of product and within the same country, prices can differ depending on the type of distributor and the point of sale, the area (urban or rural), and the packaging (volume, packaging materials, labelling). On the basis of the price surveys carried out among the actors, direct surveys at the consumption stage and the survey of global prices, it has been possible to establish average prices for each country and an average price at regional level for use when modelling the commodity chains. Table 4 shows these different average prices.

Table 4: Average prices of various raw materials, dairy products and derivatives at different stages in the commodity chains in Senegal, Burkina Faso and Nigeria. Prices used for modelling commodity chains at regional level

	Senegal	Burkina	Nigeria		Remarks	Price used for modelling
	Average price	Average price	Average price	Average price		
World price (based on Europe)						
Whole milk powder	279	279	279	353	3223 /t (average 2018-21)	279 (3223 /t)
Fat-filled powder	170	170	170	216	1972 /t (average 2018-21)	170 (1972 /t)
Local milk price - level of						
Direct sale in rural areas	300	375				450
Direct sale in urban areas	600	550	473	600	Nigeria : Abuja 2500 (niche market, on command), Kaduna 450	
Sale to collector or directly to processor	320	475			BF : 400 in rainy season, 550 in dry season	
Price paid by the processor						
Local milk	450	450	434	550	Nigeria : 375 N sales to industrialists, 850 sales to traditional indiv. processors. BF : 400 rural areas, 500 urban areas. Senegal : 300 rural areas, 600 urban areas	450
Whole milk powder	345	500	415	526		404
Fat-filled powder	280	300	332	421		299
Factory price exc. taxes						
Pasteurised milk made from local milk	900	900			Senegal : Rural areas : 700, Urban areas : 1200	850
UHT milk made from whole milk powder						800
UHT milk made from fat-filled milk	Non existant	500				600
Yoghurt made from local milk	900	1100	807	1023	Senegal : Rural areas : 640 Urban areas : 1100	900
Yoghurt made from whole milk powder	Non existant	Non existant	807	1023		900
Yoghurt made from fat-filled milk powder	750	1200	807	1023	BF : 1000 with ordinary packaging, 1400 with pre-printed packaging	850
Reconditioned whole milk powder			639	810		570
Reconditioned fat-filled milk powder			576	730		450
Price paid by consumer inc.						
Raw milk in rural areas	300	400				400
Raw milk in urban areas	600	600				
Pasteurised milk made from local milk	1100	1400			Senegal: 700 in rural areas and 1500 in urban areas. BF : Varies according to	1100
UHT milk made from whole milk powder	1000					1100
Pasteurised milk from fat filled milk powder	Non existant	Non existant				
UHT milk made from fat-filled milk powder	700	800				900
Imported UHT milk	1600	1800				1700
Reconditioned whole milk powder	723	700	749	950		720
Reconditioned fat-filled milk powder	507	575	710	900	BF : including reconditioning in Ghana	600
Whole milk powder imported in packaged form	875	650	1254	1590		1000
Fat-filled milk powder imported in packaged form						850
Milk substitute powder, without milk		430				
Yoghurt made from local milk	1200	1600	1229	1558	Nigeria : 1500-2000 supermarket, 1600 local market	1300 (900 in the informal sector)
Yoghurt made from whole milk powder	Non existant	Non existant	1284	1628		1300
Yoghurt made from fat-filled milk powder	1200	1600	1284	1628	BF : depending on packaging (1400 simple packaging, 1800 pre-printed packaging)	1300
Imported yoghurt	4000	3000				

Note: The prices listed are those for July 2023 (approximately corresponding to the global price in April 2023, taking into account the time taken for transport and storage). Within a few percentage points, these prices also match the averages for 2018 to 2021.

c) Actors involved in milk and fat filled milk powder processing

Different terms are used in different contexts to describe the various types of economic actors. For the purposes of this study, we have identified the following types and defined them as follows:

- **Dairy farms.** Although they mainly sell raw milk, farming families may also sell some milk in the form of processed products (curd, butter or cheese), sometimes in situations where there is a fall in milk sales. It is generally women who are responsible for processing the milk and selling the resulting products through local distribution channels (on the farm, at local sales outlets or markets, or to local distributors). A distinction can be made between: (i) traditional transhumant livestock farming using local breeds and based on rangeland grazing and agricultural land, during the dry season; (ii) agro-pastoralist farms with semi-intensive systems characterised by sedentarisation near collection centres and towns, the use of local breeds or crossbreeds with dairy breeds and the use of supplementary fodder from agricultural activities; (iii) intensive farms with large herds, the use of dairy breeds or cross-breeds and a diet largely based on feed – in particular concentrated feed – to complement grazing.
- **Individual ‘rural type’ small-scale processors.** These are often women, sometimes organised into cooperatives, or collectors/processors, who market the products (mainly yoghurt and curd) made from raw milk purchased from farmers in rural areas or small towns. Some of the raw material for this may be imported powder which is used to supplement local milk, depending on rhythms of seasonal production. Here too, the activity is mostly informal. The quantities processed range from a few litres to several dozen litres per day.
- **Individual ‘urban type’ small-scale processors.** Once again these are often women. These small-scale processors, generally informal in nature, process milk that is largely or entirely reconstituted from milk powder or fat filled milk powder, although some of their supply may consist of local milk. They produce curd or yoghurt and sell it in markets, at the roadside or as itinerant traders in local neighbourhoods. The quantities processed range from a few litres to several dozen litres per day.
- **Small-scale and semi-industrial ‘mini-dairy type’ processing units.** Generally located in rural areas or secondary towns, these may be cooperatives (owned by livestock farmers), associations or individuals. They process several dozen to several hundred litres a day. They mainly use local milk, although this may be mixed with milk reconstituted from milk powder or fat filled milk powder, either to supplement local milk when supplies are insufficient (particularly in the dry season), or to improve the texture of the product (yoghurt). The main products manufactured are yoghurt (including sweetened yoghurt, mixed with cereals and/or flavoured), pasteurised milk and curd. The products may be sold on site or through distributors (shops, etc.)
- **Small-scale and semi-industrial ‘urban type’ processing units.** These are generally owned by individuals and mainly process milk reconstituted from milk powder or fat filled milk powder purchased from wholesalers, although some of their raw material sometimes consists of local milk. The volumes processed range from several dozen to several hundred litres per day. The main products manufactured are yoghurt, curd and pasteurised milk. The products are sold mainly through distributors.

In this report we will classify both the ‘mini-dairy type’ and the ‘urban type’ as:

- **small-scale processing units:** units with an annual turnover of less than FCFA 50 million, which are generally not subject to VAT. This cut-off point corresponds to processing approximately 150 litres per day; or
- **semi-industrial processing units:** units with an annual turnover of more than FCFA 50 million, which are usually subject to VAT.
- **Industrial processing units.** These are owned by individuals or companies, including subsidiaries of multinational companies. They mainly process milk reconstituted from milk powder and fat filled milk powder. These raw materials are purchased from wholesalers or imported directly by certain companies. Only a few of them also use local milk, and it only represents a small proportion of their supplies. The volumes processed exceed one thousand litres per day and may

be as high as several tens of thousands of litres. The main products manufactured are yoghurt, curd and pasteurised milk. The products are sold mainly through distributors. Industrial processing units are very often subsidiaries of multinational companies, mainly from Europe.

Table 5 shows the different types of processors and specifies, for each type, the predominant type of supply (local milk only, powder only, mixed) and, where applicable, the type of supply used by a minority of actors of this type.

Table 5: Summary of the main actors involved in processing milk and fat filled milk powder

	Daily quantities of milk processed	Using only local milk	Using only imported powder	Use a mixed supply	Principle products
Dairy farms / family breeders, often women	A few liters, often poor sales				Curdled milk, butter
Individual artisanal processors typical of rural areas	<50 liters				Yoghurt, curdled
Individual artisanal processors typical of urban areas	<50 liters				Yoghurt, curdled
Artisanal (50-150 liters) and semi-industrial processing plants (150-1000 litres) in rural areas	50-1000 liters				Curdled milk, yoghurt, pasteurised
Artisanal (50-150 liters) and semi-industrial processing plants (150-1000 litres) in urban areas	50-1000 liters				Curdled milk, yoghurt, pasteurised milk
Industrial processing plants	>1000 liters				Curdled milk, yoghurt, pasteurised milk
Legend - color code :			All or a majority of processors		
			A minority of processors		

In addition to processors, a number of other economic actors are involved in **repackaging of** milk powder or fat filled milk powder, purchased in bulk (25kg bags) from **wholesalers**. A distinction can be made between:

- small-scale repackaging activity (turnover < FCFA 50 million), where the powder is bought on the local market or from importers and divided into small plastic bags. Some small distributors carry out this repackaging activity themselves;
- semi-industrial activity (turnover > FCFA 50 million), where the powder is bought from importers;
- industrial activity, again including subsidiaries of multinational companies. In these cases the powder may be imported directly by the company.

For European multinational dairy companies, setting up subsidiaries in West African countries enables them to export milk powder and fat filled milk powder there and process or repackage it locally in order to market processed products. In these cases exports/imports represent internal transfers within these large groups. Map 5 shows the scale of these operations. Import/export operations by multinationals

and their subsidiaries thus enable them to retain the high margins that are usually earned by importers. This corresponds to high internal transfer prices, making it possible for the multinationals to concentrate their profits in the exporting countries¹⁹. Furthermore, although the use of local milk by multinationals and their subsidiaries should be encouraged and is on the increase, this should be kept in perspective. It is still a small market in relation to overall sales, although a lack of transparency generally makes it impossible to assess the true extent of local sourcing.

Establishing a presence in West Africa also enables multinationals to create distribution networks that can then be used to market high-added-value products manufactured in Europe, in particular powdered milk-based formulas for young children²⁰.

The other actors in the dairy commodity chains are **collectors, importers, wholesalers** and **distributors** of dairy products and derivatives (stallholders at local markets, shops and supermarkets). Farmers may also be organised into **cooperatives** that have a role in collection or processing.

3. THE INTERNATIONAL CONTEXT

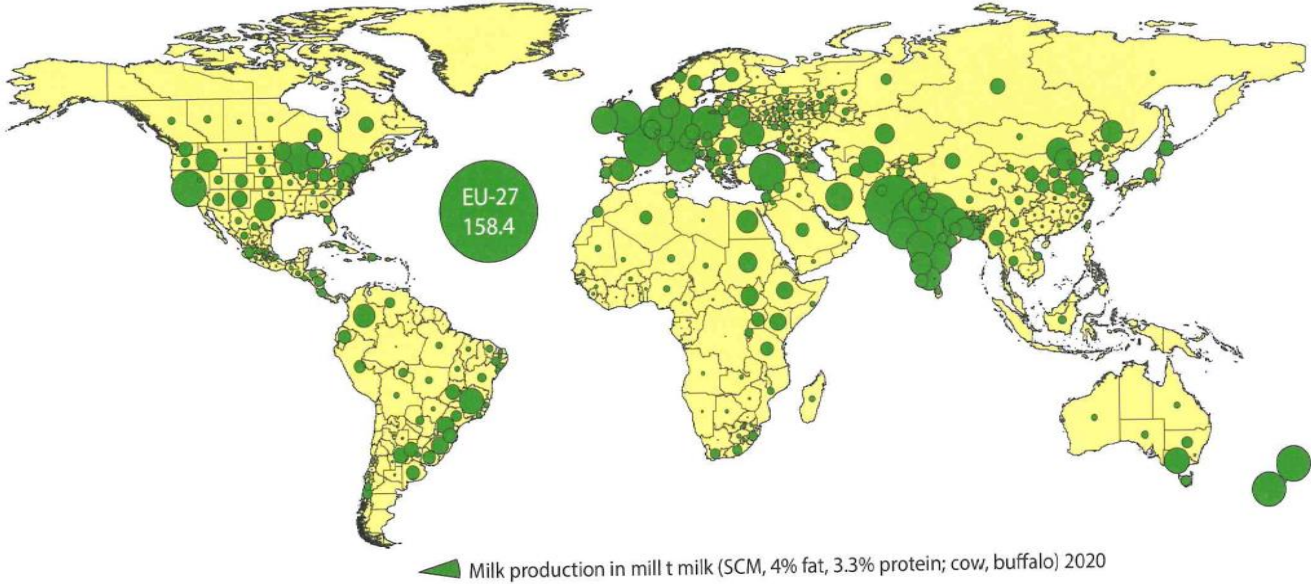
a) Production

Milk is produced and consumed all over the world (see Maps 1 to 3), so it is not a specifically tropical product. A total of 929 million tonnes of milk were produced in 2020, representing average per capita consumption of around 110 kg of milk equivalent every year. This production, from rural, peri-urban and even urban areas in all parts of the world, is constantly increasing. Annual growth in global production is around 2%, and this is directly related to demographic growth and dietary transitions in the countries of the global South. This milk comes from farming of several animal species and breeds. Over 80% of the milk consumed is produced by dairy cows. Buffalo milk accounts for 10-15%, less than 4% comes from small ruminants (sheep and goats), and less than 1% from camels.

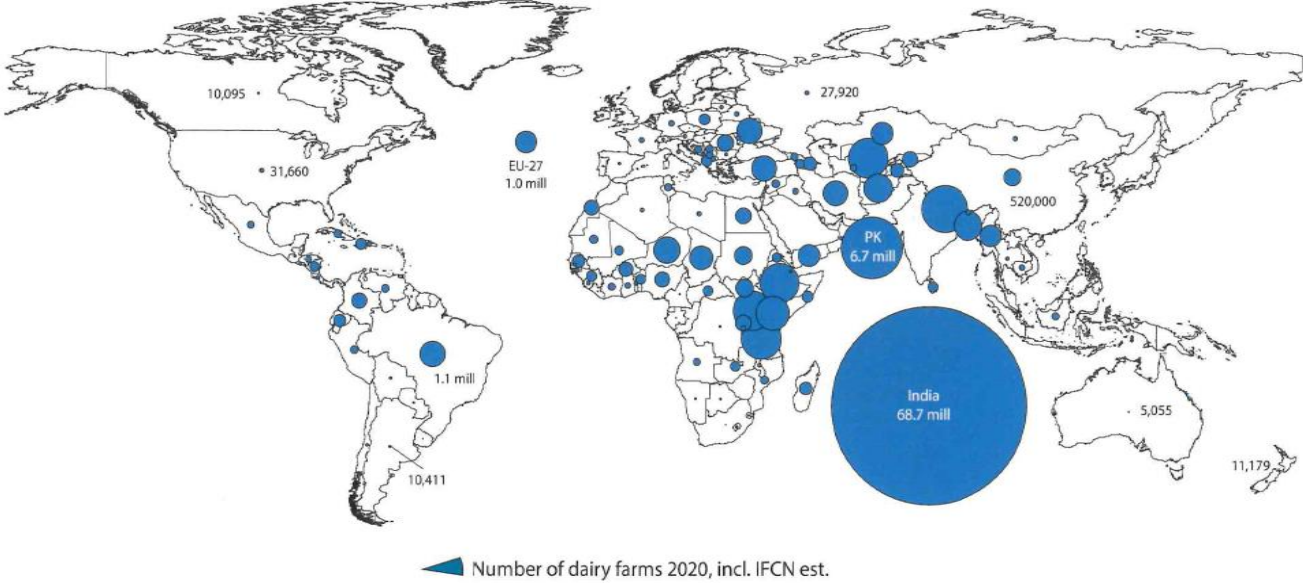
¹⁹ The analysis of prices throughout the commodity chains based on the use of imported powder (and fat filled milk powder in particular) shows that large margins are achieved on imports and that transfer prices are high, while sale prices to processing units or subsidiaries are particularly high relative to global prices and other costs associated with international trade and imports.

²⁰ Levard Laurent, Lagandré Damien, 2017.

Map 1: Global milk production in 2020 (IFCN, 2021)



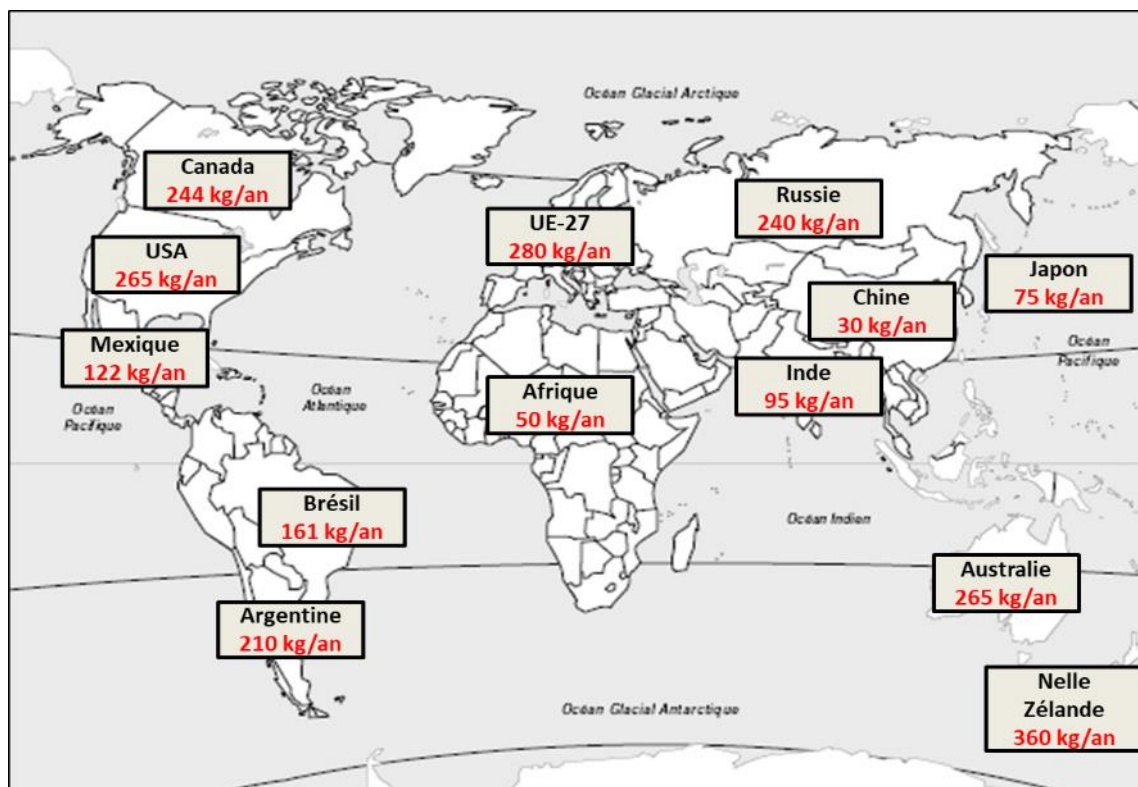
Map 2: Number of dairy farms in 2020 (IFCN, 2021)



There are around 120 million ‘dairy farms’ in the world (see Map 2), 70 million of which are in India. The majority of these are small operations: the average size is three cows per farm. However, this average figure conceals a wide variety of production systems, with varying levels of intensification and specialisation. For instance, the average size of dairy farms in northern countries is much larger than in the global South, at 65 cows in France and Germany, 94 in the Netherlands and 274 in Australia. In the United States, more than half of all dairy cows are reared on ‘mega-farms’ with more than 1,000 cows.

In 20 years, milk production has increased by 60% in Asia, 45% in Africa and 40% in Latin America. During the same period, milk consumption has virtually stagnated in developed countries, whereas it has doubled in Africa and increased by 110% in Asia. However, Asia and Africa are still lagging behind (see Map 3) and individual consumption in almost all countries on these two continents is below WHO recommended levels (around 100 kg of milk equivalent per capita per year). Given their potential, these two continents are particularly attractive targets for international dairy companies.

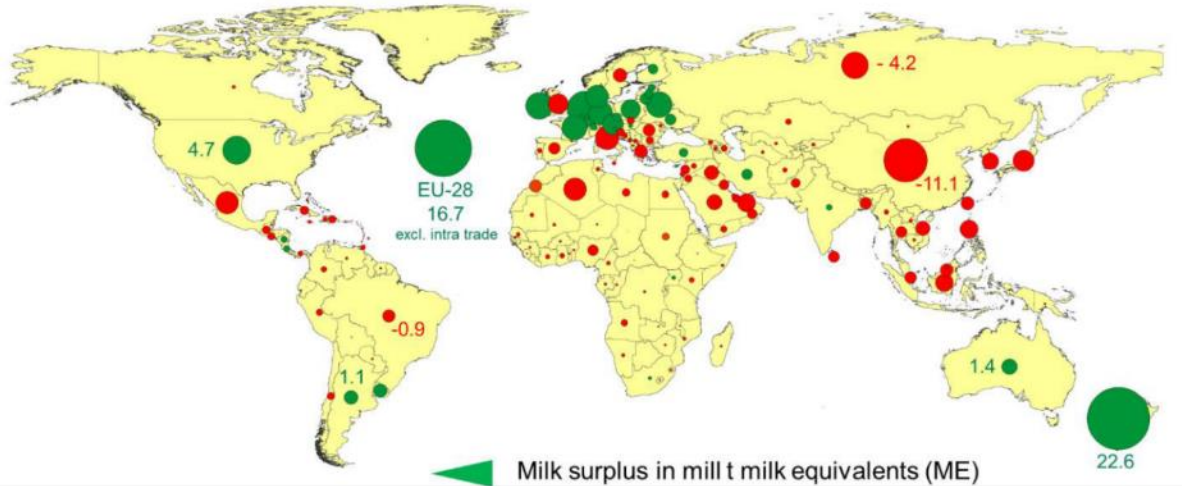
Map 3: Average annual consumption of dairy products (in milk equivalent) worldwide in 2018 (based on Corniaux, 2018)



b) The global market for dairy products and derivatives

Less than 10% of the world's milk production is traded internationally. This trade is concentrated on a few dairy products: milk powders, cheeses and butter. Europe, Oceania (New Zealand and Australia) and South America (Argentina and Uruguay) are the main exporting regions. China, Russia, the Middle East, North and West Africa, South-East Asia and Mexico are the main importing regions (see Map 4).

Map 4: Regions exporting and importing dairy products in 2018 (based on IFCN, 2020)



Apart from high added-value products (cheese, yoghurt), global trade mainly involves whole milk powder, skimmed milk powder, butter and fat filled milk powder. Whole milk can thus be used to obtain either whole milk powder or, by separating the proteins from the fat, skimmed milk powder and butter. When skimmed milk is being dehydrated, manufacturers can add vegetable fats (generally palm oil) to obtain fat filled milk powder. Global prices for whole milk powder, skimmed milk powder and butter are highly volatile (see Figure 9); as would be expected, the price of whole milk powder is at an intermediate level between the prices of skimmed milk powder and butter²¹. There is no global price for fat filled milk powder. It is a commodity that can be described as not only frequently off the statistical radar (as it is generally conflated with other ‘food preparations’), but also absent from price statistics. However, it is possible to work out the price of this type of product from the prices of its ingredients. It is worth noting that palm oil also sees high price volatility (see Figure 10).

The volatility of dairy products is largely explained by the fact that this is a market for surpluses from major exporting countries, and that only a small proportion of global production is sold on the global market. A small change in production in one of the three exporting centres results in a much larger change in the surpluses being sold on the global market. Similarly, a small change in demand in a major importing country can generate strong pressure on prices. A number of other factors contribute to price volatility: the end of milk quotas in the European Union has increased price volatility, as have energy prices and, more recently, the consequences of the war in Ukraine. The price volatility of fat filled milk powder is also influenced by the volatility of palm oil prices, which is itself partly linked to the volatility of agrofuel and consequently of fossil fuel prices.

The trend over the last fifteen years or so has been for the price of butterfat to rise as a result of increased demand, both in the United States, which had temporarily abandoned this type of product in favour of vegetable fats (especially margarine), and in emerging countries, mainly in Asia, due to changes in eating habits (direct consumption of butter, pastries, etc.). As a result, there tends to be a surplus of protein, which explains the boom in fat filled milk powders: by replacing animal fat with much cheaper vegetable fat (the price of palm oil is on average six times lower than that of butter), manufacturers have found uses and markets for milk protein and are able to sell the resulting product (fat filled milk powder) at a price that is 30% lower than that of whole milk powder.

²¹ One kilogram of whole milk powder corresponds to 730 grams of skimmed milk powder and 270 grams of butter.

Figure 9: Changes in the global price of various dairy products between 1990 and 2023 – source: FAO

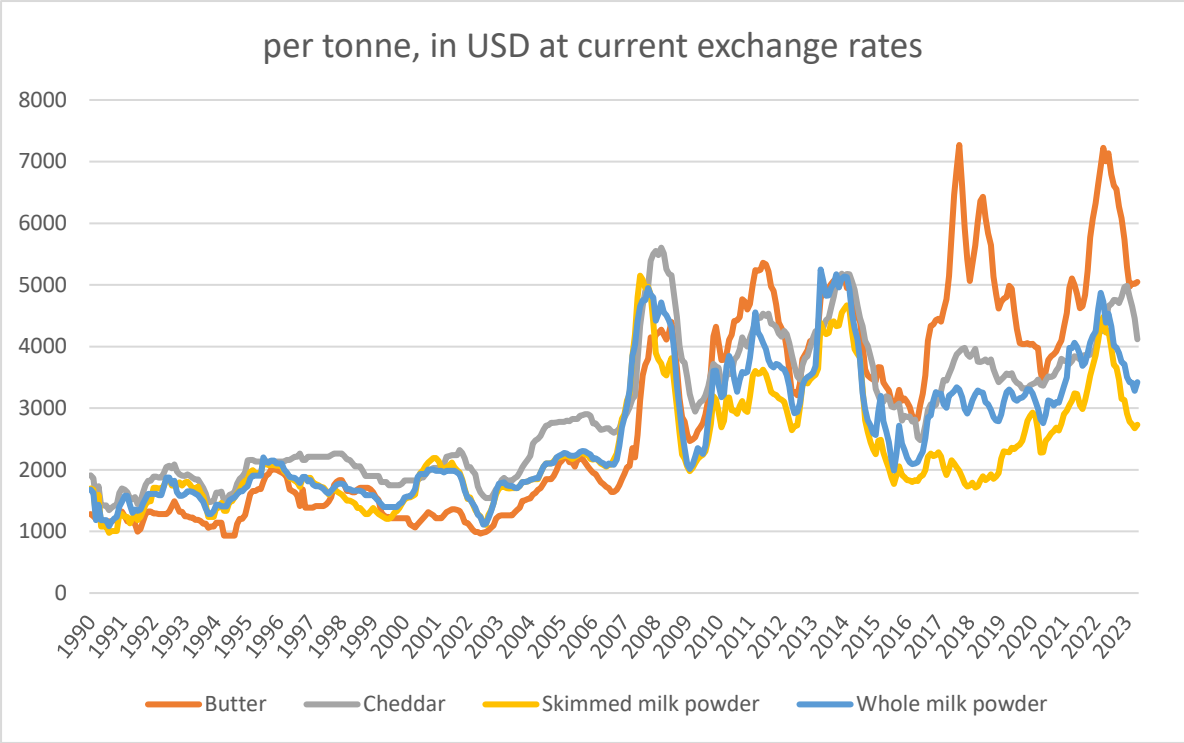
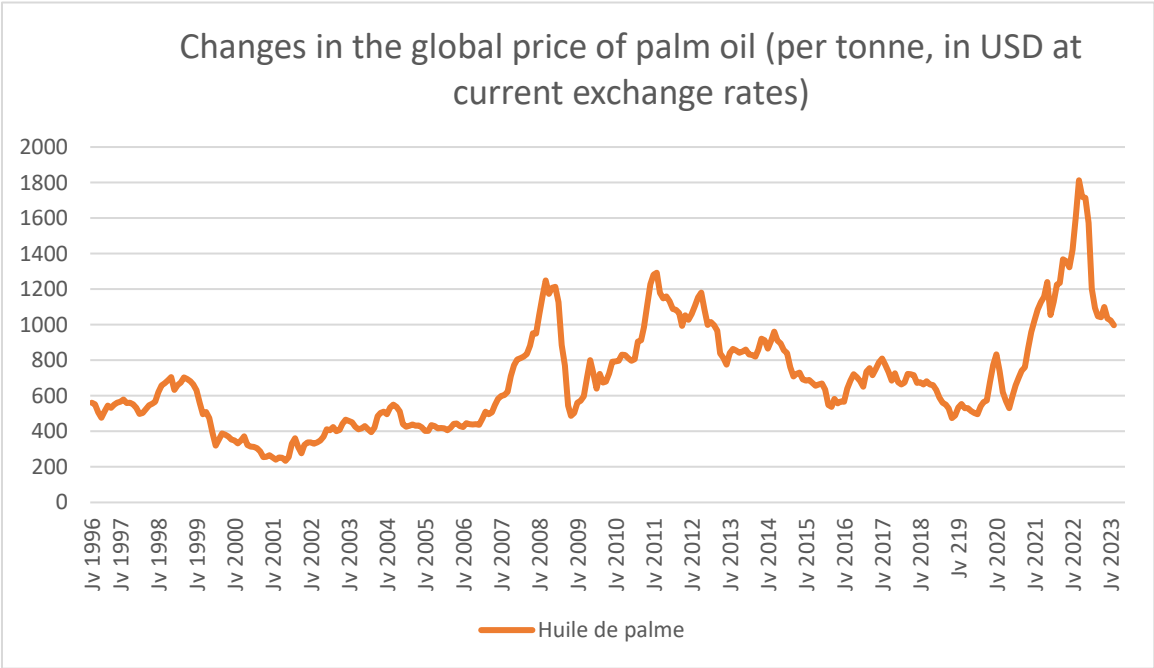


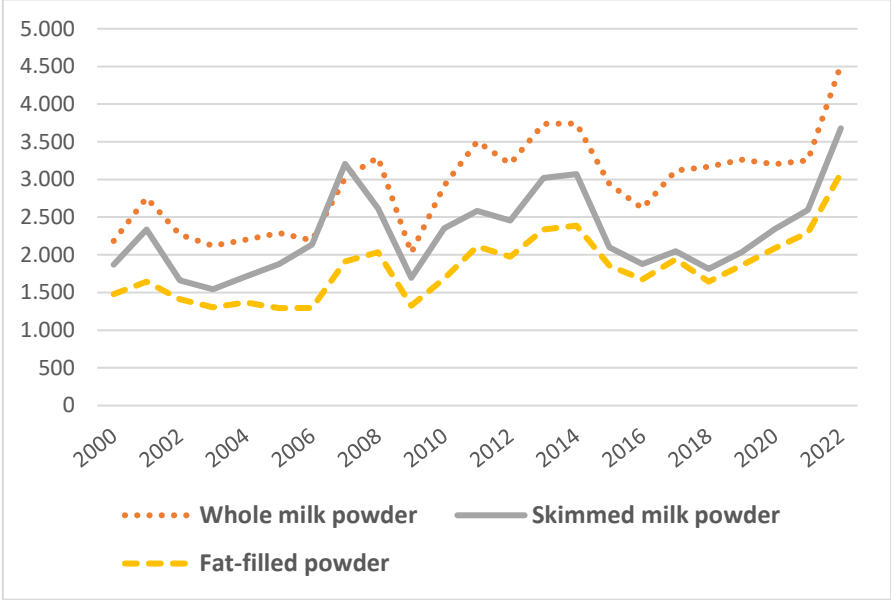
Figure 10: Changes in the global price of palm oil between 1996 and 2023 – source: FAO



The volatility of global prices is reflected in the changes in the price of powders exported from Europe to West Africa, as shown in Figure 11. Compared with the curves in Figures 9 and 10, the volatility appears less pronounced here, but this is due to the fact that Figure 11 shows annual averages, which tend to smooth out prices. Even so, it can be seen that the price of whole milk powder fluctuated over fifteen

years (2008-2022) between €2,000 and €4,500 per tonne, while that of fat filled milk powder has been between €1,300 and €3,000 per tonne (the ratio is 1 to 2.2 in both cases).

Figure 11: Changes in the price of milk powders exported by the EU to West Africa (per tonne, in € at current exchange rates). Based on BACI, authors' calculations²²



c) The dominant actors in collection and processing

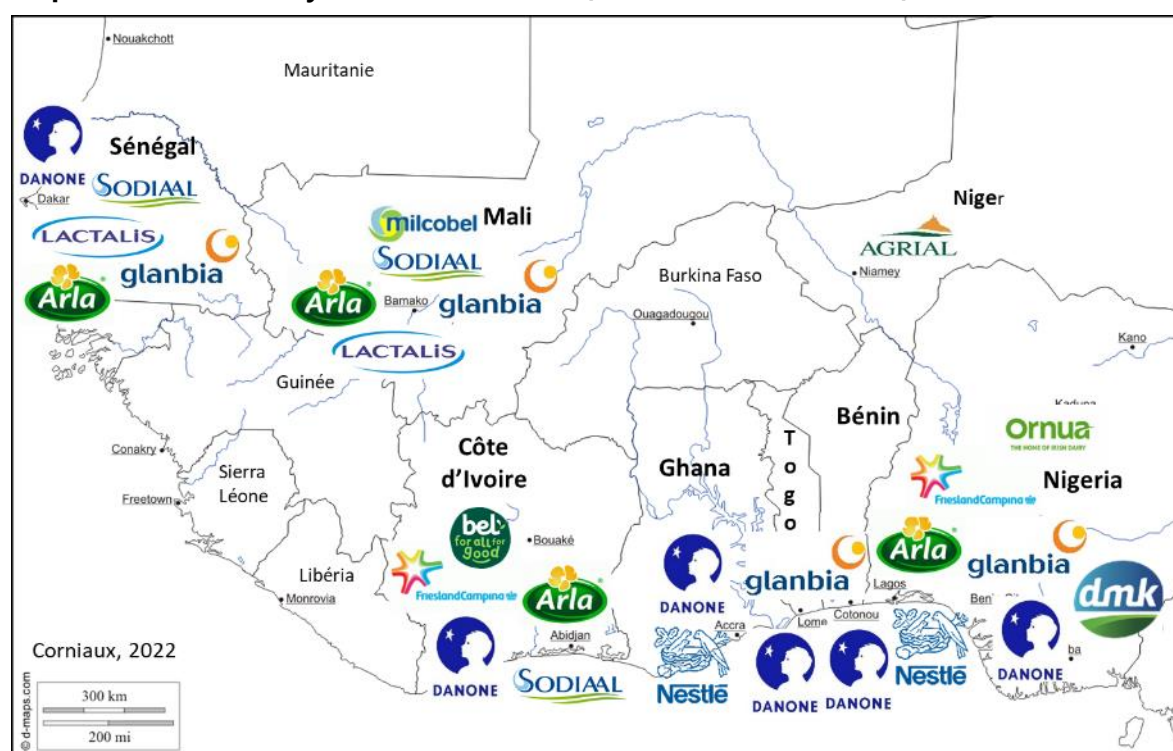
Milk collection and trading are organised around a handful of agri-food giants. The top 20 dairy companies account for 25% of the world’s milk, or more than 210 million tonnes of milk per year (see Table 6). These are powerful companies with an international presence, either with their own facilities or through agreements with local partners. By way of example, European companies have proliferated in West Africa (see Map 5), a particularly promising region because of its increase in consumption due especially to its strong demographic growth. This trend has accelerated since the end of milk quota policies in the European Union in 2015.

²² The international price of fat filled milk powders does not appear in the databases (BACI, ComExt, FAOSTAT, IFCN, etc.). We have calculated it from the prices of skimmed milk powder and palm oil.

Table 6: World's top 20 dairy firms by milk collection in 2019 (IFCN, 2021)

Rank 2019	Company Name	Origin & main operation countries	Milk intake in mil. t ME	Estimated turnover per kg milk, in USD	Market share in % of world milk production
1	Dairy Farmers of America	USA	29.0	0.5	3.4%
2	Fonterra	New Zealand/others	21.9	0.6	2.6%
3	Groupe Lactalis	France/others	20.0*	1.1*	2.4%
4	Arla Foods	Denmark/Sweden/others	13.7	0.9	1.6%
5	Nestlé	Switzerland/others	13.7*	1.3*	1.6%
6	FrieslandCampina	Netherlands/others	11.8*	1.1*	1.4%
7	Saputo	Canada/USA/others	10.5	1.1	1.2%
8	Amul	India	10.3	0.5	1.2%
9	Yili	China	9.4*	1.4*	1.1%
10	Mengniu	China	8.7*	1.3*	1.0%
11	California Dairies	USA	8.1	0.5	1.0%
12	Glanbia Plc	USA/others	8.0	0.5	0.9%
13	DMK	Germany/Netherlands	7.1*	0.9*	0.8%
14	Agropur	Canada/USA	6.5	0.8	0.8%
15	Leprino	USA	5.9*	0.6*	0.7%
16	Land'O'Lakes	USA	5.8	0.7	0.7%
17	Müller	Germany/UK/others	5.7*	0.9*	0.7%
18	Danone	France/others	5.7	2.8	0.7%
19	Sodiaal	France	4.6	1.2	0.5%
20	Savencia	France/others	4.2	1.3	0.5%

Map 5: Presence of dairy firms in West Africa (based on Corniaux, 2022)



While they account for a significant proportion of the milk collected worldwide, these major international groups are far from alone in the dairy processing sector. In all countries, a large number of smaller structures are developing that process and market a wide range of dairy products. Some of these, such as milk, yoghurts, creams and ice creams, and to a lesser extent butter and cheeses, require strict adherence to the cold chain. Others, such as UHT milks, UHT milk drinks, milk powders, condensed milks and concentrated milks, can be stored for several months at room temperature.

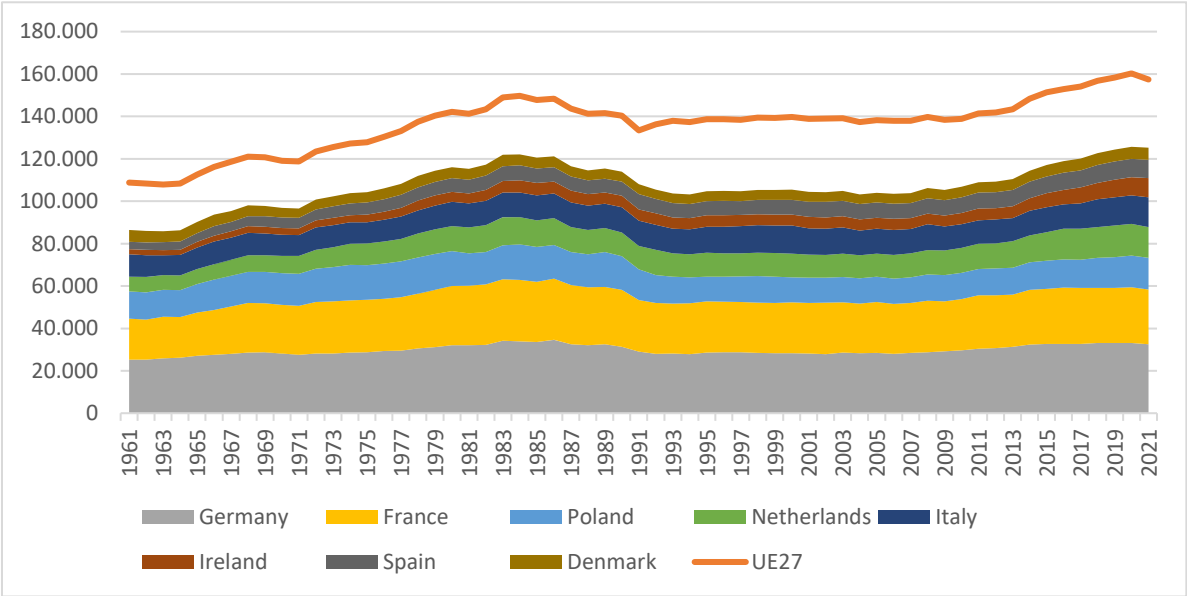
This diverse range of dairy products is reflected in a variety of prices, from low-cost products (commodities on the international market) intended for the mass market among the poorest populations, to high-end products targeting niche markets.

Finally, milk and dairy products are animal products. They are now controversial foods, especially because of their overall environmental impacts (greenhouse gas emissions), the conditions under which the animals are reared (animal welfare) and their impacts on human health (cholesterol, diabetes, cardiovascular disease). While these controversies are legitimate in northern countries, however, they are much less prominent in the global South, where milk and its derivatives are essentially recommended foods due to their nutritional value, particularly for children.

d) EU production, consumption and external trade

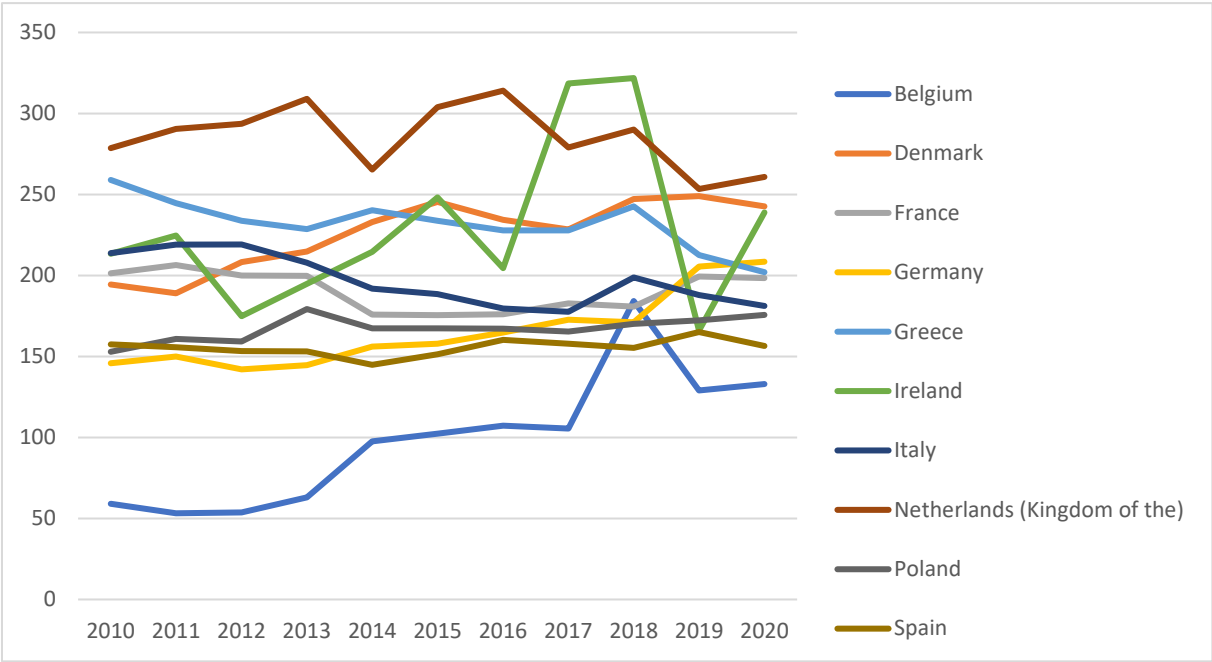
Production rose sharply in Europe until the early 1980s, when milk quotas were introduced (see Figure 12). Production then stabilised until 2015 and the end of quotas. The decline in the number of dairy farms and cows was offset by an increase in average farm size and higher productivity. After 2015, production began to rise again, particularly in Ireland, the Netherlands, Denmark and parts of Germany.

Figure 12: Milk production in Europe (in thousands of tonnes) – source: FAOSTAT



Although production is increasing, per capita consumption has remained almost unchanged (see Figure 13) at the relatively high level of around 200 kg per year. Europe is suffering from an ageing population and low or negative demographic growth, depending on the country, but also from dietary transitions in which animal products are becoming less important. Exports therefore provide an outlet for surplus production. This is particularly true of exports to China, Russia, Mexico, Algeria and West Africa. On the other hand, many farmers are retiring, the profession is viewed as unappealing and new European policies are being implemented (Green Deal). These factors could all limit export levels in the short term.

Figure 13: Individual consumption in Europe (kg milk equivalent per capita per year) – Source: FAOSTAT



III. THE PROBLEM OF COMPETITION FROM WEST AFRICAN IMPORTS OF DAIRY PRODUCTS AND DERIVATIVES AND THE PROSPECTS FOR CHANGE

1. THE PROBLEM OF COMPETITION FROM IMPORTS

The West African region currently only produces 41% of the milk, dairy products and derivatives that it consumes. Imports of dairy products and derivatives, and in particular milk powder and fat filled milk powder, are therefore necessary to meet consumer demand. Moreover, since the cost of fat filled milk powder on the global market is 30% lower than that of whole milk powder, importing it, using it to make processed products (yoghurt and reconstituted milk) or repackaging it and distributing it to consumers allows consumers to buy cheaper products.

At the same time, these imports represent a problem and a threat to the West African region. This has led local dairy sector actors and civil society organisations to work together in the *Mon Lait est local (My Milk is Local)* campaign, and subsequently on the *Regional Platform for the Promotion of Local Milk* and in the ECOWAS states, to agree on the definition of a *Regional Offensive for the Promotion of Local Milk Value Chains in West Africa*.

The main problem is that these imports and products made from imported powders **compete** with locally produced milk and the products made from it. This competition occurs on two levels:

- first, **at the level of processors**, who, because of the low price of imported powder, its ease of use (as a non-perishable and easily stored product) and its permanent availability, find that it is not in their interests to purchase more local milk, set up collection systems or support farmers in their production activities. Yet historically, in the major dairy regions of the different continents, this type of engagement by dairy processors has been a decisive factor in the development of milk production.
- secondly, **at the level of consumers**, for whom buying imported powders or products made from them is cheaper than buying products made from local milk. Moreover, powder is very easy to store (as a non-perishable product) and is available everywhere at all times, which is not the case for local dairy products. Year-round availability is an important factor in consumer choices (we buy what we are used to seeing and buying). Consumer choice is also influenced by differences in product packaging and by advertising for imported products (often including misleading information and images suggesting that they are genuine dairy products made from local milk). In the short term, this does not help to increase consumer demand for dairy products from the local milk sector or to improve the sale price of these products. In the longer term, a shift in eating habits is taking place in favour of imported products among younger generations, who are used to consuming them and prefer their taste, while the opposite preferences are seen in populations accustomed to consuming local milk and its derivatives.

Thus, while the local milk sector faces numerous constraints in terms of production, collection, storage, processing and distribution – these constraints are outside the scope of this report – competition from imported milk powders and fat filled milk powders exacerbates these difficulties by discouraging demand for local products. It greatly reduces the likelihood of success for the various actions that could be undertaken to boost the local milk sector.

Competition from powder exports is therefore tending to weaken the growth rate of milk production in the region, as well as the jobs and income associated with milk production and collection. As more

added value is generated by the local milk sector than by the import sector, competition tends to reduce overall regional **economic growth** and the generation of **jobs** and **income** linked to that growth. Rural areas are particularly affected, because the imported powder processing plants (and the associated added value, jobs and incomes) are concentrated mainly in towns and cities; this is despite the fact that rural areas, where a large proportion of the activities in the local milk sector are concentrated, should be given priority, as that is where income levels are lowest and poverty and malnutrition are most prevalent. Moreover, the economic and social development of rural areas is a key issue in the current context, given growing numbers of conflicts and levels of instability in the region.

In the longer term, against a backdrop of strong demographic growth and changing dietary habits, competition from imported milk powders and, to an even greater extent, from imported fat filled milk powder is tending to increase the region's **food dependency**. That dependency is already considerable, given that the rate of self-sufficiency in dairy products, i.e. the proportion of consumption covered by regional production, is already as low as 41%, compared with 60% at the beginning of the 21st century. At the current rate of change, it will be down to around a third in two decades' time. Food dependency means not only a considerable **import bill** for the region, but it also increases the **vulnerability of consumers**, particularly the poorest urban consumers, as the price surges in 2007-2008 and 2022 showed. Finally, the policy of encouraging imports of low-priced powders, supposedly in the interests of consumers, has made consumers much more vulnerable to volatility in global prices. Given the characteristics and future development of global dairy markets in a context of environmental and geopolitical crises (surplus markets accounting for a very small proportion of production, the sensitivity of dairy production to climate events, constraints on the scope for production growth in the major exporting countries, increased demand in various emerging countries), such price spikes could well occur again in the future, and they could be more acute and persist for longer.

2. THE ROLE OF THE EUROPEAN UNION AND ITS ACTORS

European exports of milk powder and fat filled milk powder to West Africa come mainly from dairy product manufacturers, private companies or cooperatives, some of which are multinationals. A proportion of these exports are supplied to these companies' own subsidiaries in the various countries in the region (see Map 5).

European policies tend to encourage the development of these exports. With the end of milk quotas in 2015, milk surpluses have increased, boosting the European Union's export capacity. Moreover, the system of direct subsidies under the Common Agricultural Policy (CAP) means that a significant proportion of livestock farmers' income comes not from the sale of their produce, but from these subsidies. In France, this proportion is as high as 80% for dairy farmers²³. In reality, CAP subsidies enable manufacturers to pay a lower price for milk than they would have to if there were no subsidies, and therefore to sell their output (and in particular, fat filled milk powder) at a more competitive price on the global market. The system of subsidies for livestock farmers is ultimately used for dumping practices, i.e. selling products at a price below their true production cost. Agricultural economist Jacques Berthelot calculated that the dumping rate for dairy exports to West Africa, i.e. the gain in competitiveness linked to direct CAP subsidies, amounted to 21% of the price of products²⁴. The European Commission has also funded programmes to promote dairy products and derivatives in West Africa (in France, on at least one occasion). It has also applied considerable pressure to West African states to sign Economic Partnership Agreements (EPAs) which provide for the total removal of their already weak customs protection against imports of milk powder and fat filled milk powder. So far, two interim EPAs have been signed and ratified

²³ Chatellier Vincent, 2021.

²⁴ Levard Laurent, Martin Garcia Irene, 2019.

in the region, with Ghana and Côte d'Ivoire²⁵. Finally, the European Union has so far failed to put in place policies aimed at banning or reducing imports of palm oil, despite the well-known consequences of its production in terms of deforestation. It has thus indirectly encouraged the development of the practice of substituting palm oil for milk fat. It is unlikely that the new regulations on imported deforestation will result in a reduction in palm oil imports, as producers (and exporters) can easily devote the share of their production (or exports) resulting from pre-2020 deforestation (and therefore not counted by the EU as resulting from deforestation) to the European market and the share resulting from later deforestation to third-party markets.

3. FRAMEWORK FOR ANALYSING FACTORS THAT COULD INFLUENCE THE FUTURE DEVELOPMENT OF EUROPEAN EXPORTS OF DAIRY PRODUCTS AND DERIVATIVES TO WEST AFRICA

The development of European exports of dairy products and derivatives to West Africa over the next ten years will depend on the overall volume of imports and also on imports from Europe as a share of total imports of dairy products and derivatives.

Firstly, changes in the overall volume of imports into the region will depend on **changes in consumption and production in West Africa:**

- The increase in demand for dairy products and derivatives. Consumption of milk, dairy products and derivatives is 12.9²⁶ billion litres of milk equivalent (litres milk eq.) in 2023. With the population expected to grow by around 27% between now and 2032, the increase in per capita consumption of dairy products will depend on changes in living standards, dietary habits and the relative price of dairy products and derivatives compared with the general price level. A 4% increase in per capita consumption (equivalent to that seen between 2010 and 2021) would have the result that by 2032, overall demand in the region will increase by 32%, which is equivalent to 4.2 billion litres milk eq.
- The increase in regional production. Annual production currently stands at 5.1 billion litres milk eq. Based on the current rate of increase in production, output will rise by 1.3 billion litres milk eq. by 2032, an increase of 25%. The growth in production will depend on changes in a range of factors linked to the current limitations affecting milk production in the region – and in particular the price level of milk relative to imported products – and on the extent to which proactive policies support milk production, collection and consumption in the region.

Finally, at the current rate of growth in milk consumption and production in West Africa, imports will be 10.7 billion litres milk eq. in 2032, an increase of 2.9 billion litres milk eq. compared with today (7.8 billion litres milk eq.), or +37%. This will result in a fall in the self-sufficiency rate (to 37% compared with 41% today).

Maintaining the current self-sufficiency rate of 41% would require production growth of 32% (i.e. +1.7 billion litres milk eq.) compared with the growth of 25% (+ 1.3 billion litres milk eq.) expected based on current trends. Imports would then rise by 32% (2.5 billion litres milk eq.) instead of 37% (2.9 billion litres milk eq.).

For West Africa to regain a self-sufficiency rate of 50%, production would have to increase by 67% (i.e. +3.4 billion litres milk eq.) between now and 2032, compared with 25% (+1.3 billion litres milk eq.) on current trends. This would mean imports rising by just 10% (0.7 billion litres milk eq.) instead of 37% (2.9 billion litres milk eq.).

²⁵ Levard Laurent, Bigot Amélie, 2014; Levard Laurent, Kambou Sié, 2020.

²⁶ The various figures for 2023 are estimated on the basis of 2021 data, extrapolating from the trend seen over the past ten years.

The Regional Offensive on Milk comes at a good moment, given the risk of the West African region becoming even more dependent on imports of dairy products and derivatives, the explosion in import costs and the growing vulnerability of its consumers to the vagaries of the global market.

With regard to **the share of imports from Europe**, it should first be noted that the FAO and the OECD both forecast a sharp increase in the global demand for dairy products over the next few years (+1.8% per year over the next ten years), mainly due to rising consumption in Asia and, to a lesser extent, Africa. The question is where the corresponding increase in production will come from. The three main exporting regions are the European Union, the United States and New Zealand. In Europe and New Zealand, little growth in production is expected, or there may even be a decline, due to the need for a transition in production models due to the ecological crisis and the environmental damage caused by intensive livestock farming:

- In New Zealand, production grew for a long time following the replacement of sheep farms by dairy cattle farms, but this process has come to an end and production has not increased for the last five years. In addition, livestock farming is primarily grass-fed. Grassland production has increased thanks to intensive nitrogen fertilisation, but this model has reached its limits due to nitrate pollution of rivers, which is a major constraint on the development of green tourism.
- In the European Union, the European Commission is for the first time predicting a moderate fall in production over the next five years (-0.2% per year), with production over the last four years (2019-2023) broadly stable. The measures set out in the CAP's National Strategic Plans (NSPs) will act as major brakes on growth in milk production in many countries and regions (the Netherlands, Germany and Flanders). In France, the main challenge is the replacement of retiring livestock farmers by the next generation.

In the United States, agro-environmental pressure is less intense and milk production could develop further, particularly in the Midwest and Idaho. However, the sharp falls in availability of water in some states (particularly California and Texas) will require trade-offs between different water uses, and it is not certain that milk production will be favoured over other agricultural uses (almond production, etc.).

Given the growth in demand and the existing constraints in the main exporting countries, the emergence of new exporting countries cannot be ruled out.

In any case, the European Union is likely to become a less significant player in the global market as a whole, although this will also depend on:

- changes in milk production and internal consumption volumes;
- the political will to put a stop to the practices of disguised dumping linked to CAP subsidies and the absence of internal market regulation, as well as to the use of palm oil, whose production contributes directly or indirectly to deforestation;
- dairy activities in other regions of the world (for example in China and Russia as importing countries, or in regions that could become more powerful on the global market, such as South America);
- the scale of development of alternatives to dairy products and the choices made by the European Union in relation to products of this type.

On this last point, it should be noted that there is additional potential for the development of fat filled milk powders, since a proportion of exports still consist of whole milk powder. Moreover, other low-cost milk substitutes are being developed alongside fat filled milk powder, a process that is somewhat opaque, not least because products such as blends of whey powder with fat filled milk powders are often manufactured by actors outside the dairy industry. These products do not have a specific customs code and in statistics they are combined with other types of food products. Whey production is tending to increase with the increase in cheese production (whey is a by-product of this) and the

lower demand for demineralised whey powder for infant formula, due in particular to the falling birth rate in China. Blends of whey powder with fat filled milk powders are now cheaper than fat filled milk powder, but their nutritional value is lower (whey powder contains no casein, which is a constituent of cheese). Milk substitutes that do not contain animal products, such as creamers, could also experience growth on the global market at even lower prices. The growth of this type of product would further contribute to the decline in the importance of the European Union in this market, unless it also becomes involved in the manufacture and trade of this type of product. In any case, the prospects for growth of cheap milk substitutes with low nutritional value mean that West Africa must become more self-sufficient in the supply of real dairy products.

IV. THE POLITICAL AND LEGAL FRAMEWORK

1) WTO COMMITMENTS

The ECOWAS member states (and Mauritania) are members of the World Trade Organization (WTO) as individual countries, not as a regional entity. Their commitments under the Marrakesh Agreement (1994) are therefore individual national commitments. These commitments relate in particular to bound tariff rates which are notified to the WTO, i.e. the tariff levels that states have undertaken not to exceed²⁷. The states have also notified the WTO of other levies on imports (ODC, 'other duties and charges') which include taxes, VAT and customs stamps. An increase in the CET could potentially be in breach of these commitments. An analysis of the commitments made regarding whole milk powder and bulk fat filled milk powder (in packs of more than 25 kg) vary greatly from one country to another (see Table 7). However, in general:

- Bound tariffs for fat filled milk powder are higher than the 35% suggested in some of the policy options studied in this report in most countries (10 out of 16), with the exception of Senegal (30%), Mauritania (25%), Cabo Verde (20%), Côte d'Ivoire (15%) and Liberia (15%). Sierra Leone has not made any notification.
- The bound tariffs for whole milk powder are higher than or equal to the 10% suggested by certain options in nine countries (Nigeria, Gambia, Togo, Ghana, Guinea Bissau, Sierra Leone, Senegal, Cabo Verde and Liberia) and slightly lower than 10% in seven countries (Burkina Faso, Benin, Guinea, Mali, Mauritania, Niger and Côte d'Ivoire).

It should also be noted that in some countries, especially for whole milk powder, the notified rates for other levies are 0%.

In addition, the signatory states of the Marrakech Agreement undertook not to implement quantitative restriction mechanisms that had not been notified at the time of signing the Agreement and that could not be justified on public health grounds. Scenarios involving quantitative restrictions could therefore potentially conflict with existing WTO commitments.

²⁷ MFN (most favoured nation) bound duty, i.e. the treatment given to all partner countries not benefiting from preferential tariffs in the case of a free trade agreement or unilateral preferential treatment.

Table 7: Commitments notified to the WTO relating to bound customs duties and other import levies

	Whole milk powder (> 1,5% MG) > 25 kg (c) (code 04022100) (d)		Fat-filled powder > 25 kg (c) (code 19019000) (e)	
	Bound rate (MFN Bound Duty) (b)	Other levies (ODC) (a)	Bound rate (MFN Bound Duty) (b)	Other levies (ODC) (a)
Benin	7%	0%	60%	19%
Burkina Faso	7%	0%	100%	50%
Cape Verde	10%	0,5%	20%	0,5%
Côte d'Ivoire	6%	60F/kg	15%	0%
The Gambia	110%	10%	110%	10%
Ghana	40%	0%	99%	0%
Guinea	7%	0%	40%	23%
Guinea-Bissau	40%	25%	40%	25%
Liberia	10%	0,5%	15%	0,5%
Mali	7%	0%	60%	50%
Mauritania	7%	0%	25%	15%
Niger	7%	0%	200%	50%
Nigeria	150%	80%	150%	80%
Senegal	30%	15%	30%	49%
Sierra Leone	40%	20%	-	-
Togo	80%	(f)	80%	(f)

(a) ODC : Other duties and charges, includes : fiscal law ; VAT ; customs stamps

(b) MFN : Most Favoured Nation

(c) No mention of the container (packaging) except for Senegal (> 25kg)

(d) HS 2017. For Senegal and Cape Verde, code 04022910 (with sugar)

(e) HS 2017. Included in food preparations. For Liberia, 1901901000

(f) "3% ; 200 FCFA/t indivisible ; 4%".

According to WTO - <http://tao.wto.org/default.aspx>

2) THE ECOWAS CET

ECOWAS has implemented a common trade policy since 2015, replacing the common trade policy introduced by WAEMU in 2000²⁸. The '*ECOWAS CET (Common External Tariff)*' has thus replaced the *WAEMU CET* in WAEMU member states. The *WAEMU CET* had four levels of taxation corresponding to four categories of products. The *ECOWAS CET* is based on the *WAEMU CET*, with some changes to product categorisation. In addition, the *ECOWAS CET* includes a fifth tariff band (Category 4) with a customs duty of 35%. This aims to improve the protection of certain sectors against imports from outside the region.

Table 8 (first three columns) sets out the five tariff bands of the *ECOWAS CET* and the treatment of dairy products and fat filled milk powder, the latter being regarded as a *food preparation* in the customs classification.

²⁸ WAEMU comprises eight West African countries (former French colonies and Guinea Bissau). ECOWAS comprises the WAEMU countries plus seven other countries (English-speaking countries and Cabo Verde).

Table 8: The classification of dairy products and derivatives in the five tariff bands of the ECOWAS CET and the impact of the regional EPA – source: Council of the European Union, 2014

Dairy products and milk powder with added vegetable fats	Tariff nomenclature	ECOWAS CET category	EPA
		Category 0 (0%)	Already liberalised
Milk powder, in packs of over 25 kg	0402101000 (<1.5% fat), 0402110000 (>1.5% fat, unsweetened), 0402291000 (>1.5% fat, sweetened)	Category 1 (5%)	Liberalised in 5 years (Group A)
Fat filled milk powder (food preparation), in packs of over 12.5 kg	19019010 (over 25kg), 19019020 (12.5 to 25kg)		
Milk powder in packs of less than 25 kg for pharmacies	0402102100 (<1.5% fat), 0402121000 (>1.5% fat, unsweetened), 0402292100 (>1.5% fat, sweetened)		
Whey	0404100000		
Butter oils and butterfats	0405901000		
Milk powder, in non-pharmacy packs of less than 25 kg	040210... (skimmed)? 040220...	Category 2 (10%)	Excluded from liberalisation (Group D)
Unsweetened concentrated milk, in packs of over 25 kg	0402911000		
Milk and cream (not concentrated)	0401, included in 0402990000 (sweetened)	Category 3 (20%)	Excluded from liberalisation (Group D)
Cheeses	0406		
Unsweetened concentrated milk, in packs of less than 25kg	0402911000		
Sweetened concentrated milk	Included in 0402990000		
Butter	0405100000		
Fat filled milk powder (food preparation), in non-pharmacy packs of less than 12.5 kg	Included in 19019099		
Yoghurts	040310	Category 4 (35%)	Excluded from liberalisation (Group D)

In addition to customs duties, other taxes are levied together with the CET, namely the statistical levy (1%), the WAEMU community solidarity levy (PCS, 1%) and the ECOWAS community levy (CL, 1%).

Clearly the level of protection in the West African region for milk powder intended for repackaging or processing (bags > 25 kg for milk powder and bags > 12.5 kg for fat filled milk powder) is very low (Category 1, 5%). That is because these powders are regarded as either *basic necessities* or *specific inputs* – powders intended for repackaging for sale to consumers or for processing (reconstitution of liquid milk, yoghurt and curd). Whey and butter oils for use in the food industry also fall into this category as *specific inputs*. Unsweetened concentrated milk intended for repackaging or processing (packs of over 25kg) is taxed at a slightly higher rate (10%).

The rate applied to milk powder already packaged for sale (bags < 25kg) is higher than for powder in bags over 25kg, but is still low (Category 2, 10%). It is therefore regarded as an *intermediate product*. The rate is higher for fat filled milk powder in bags of less than 12.5kg (Category 3, 20%). This product is therefore regarded as a *final consumer good*.

Levels of protection are higher for liquid milk, butter, cheese, unsweetened concentrated milk in packs of less than 25kg and sweetened concentrated milk (Category 3, *final consumer goods*, 20%), and even more so for yoghurt (Category 4, *specific goods for economic development*, 35%).

These customs duties reflect the desire, first, to provide consumers with cheap staple foods (particularly milk powder and fat filled milk powder), and second, to encourage local production of consumer goods from imported inputs (in this case, the manufacture of dairy products from milk powder and fat filled milk powder) as opposed to imported finished products, which are taxed more heavily. The fact that low-priced milk powder and fat filled milk powder imports could compete with the region's milk production was not viewed as a decisive factor when deciding on the level of customs duties.

3) ECONOMIC PARTNERSHIP AGREEMENTS (EPAS)

The regional Economic Partnership Agreement (EPA) between West Africa (ECOWAS countries and Mauritania) and the European Union is currently stalled, as Nigeria has not signed it. The text provides for dairy products and fat filled milk powder intended for sale to consumers to be classified in Categories 2, 3 and 4, i.e. considered as sensitive products which are therefore excluded from liberalisation (see Table 8, fourth column). Category 1 products, on the other hand, in particular milk powder and fat filled milk powder intended for repackaging and processing, are due to be liberalised within five years (Group A of the EPA). According to our contacts at the European Commission, the ECOWAS countries did not ask during the negotiations for these products to be considered as sensitive products.

Against the backdrop of the slowdown in the regional EPA negotiations and the subsequent deadlock in the signing process, two interim Economic Partnership Agreements were negotiated, signed and ratified between the European Union and Côte d'Ivoire and Ghana. These agreements are now being implemented. The first stage of tariff dismantling took place in 2019 and 2021 respectively.^{29 30} As regards dairy products, Côte d'Ivoire's liberalisation is similar to what is provided for under the regional EPA, but with a more robust liberalisation process in the interim EPA than in the regional EPA: butter and cheese imports are due to be liberalised between 2026 and 2029 under the interim EPA, whereas these are listed as sensitive products under the regional EPA. With regard to milk powder, the Côte d'Ivoire EPA provides for liberalisation to begin in 2019 (2019 to 2024 depending on the product), while fat filled milk powder will be liberalised at a later date (2024 to 2026). Liberalisation is more far-reaching in Ghana, on the other hand, covering all dairy products and fat filled milk powder, with liberalisation of whole milk powder in packs of more than 25kg from 2021 and fat filled milk powder in packs of more than 25kg in 2025-26. The increased competitiveness of powder repackaged or processed in Côte d'Ivoire and Ghana and re-exported to the West African region should have become evident by then. It is therefore clear that, through the interim EPAs, the whole region is likely to be affected if, as is the case so far as we know, no taxation mechanism is put in place with respect to re-exports to the rest of the region of products manufactured in Côte d'Ivoire or Ghana using raw materials liberalised under the interim EPAs.

²⁹ Levard Laurent and Kambou Sié, 2020.

³⁰ https://www.eeas.europa.eu/ghana/european-union-and-ghana_en?s=101#66381

4) TAX POLICIES: VALUE ADDED TAX (VAT)

Although tax policies are the responsibility of individual countries, ECOWAS and WAEMU have issued directives aimed at harmonising VAT legislation³¹. This harmonisation concerns in particular:

- Legal entities and VAT-registered individuals. It should be noted that importers are subject to VAT on the products they import (the taxable amount being the value of the imported products, including customs duties and other import levies).
- The threshold for VAT registration, corresponding to an annual turnover of between USD 12,000 and 200,000 (ECOWAS directive) or between FCFA 30 and 100 million (WAEMU directive) for companies supplying goods, with the possibility of introducing a simplified actual regime for small and medium-sized enterprises and industries.
- VAT-exempt products, notably local products including agricultural products, essential goods (list drawn up by the ECOWAS Council) and agricultural inputs (ditto), with member states unable to grant other exemptions (ECOWAS directive). The WAEMU directive states that unprocessed foodstuffs and basic necessities are exempt if they are included in a list in an annex, which includes unprocessed milk.
- The rate of tax, which must be between 5% and 20% according to the ECOWAS directive and between 15% and 20% according to the WAEMU directive. Within ECOWAS, member states have the option of setting a reduced rate, whose scope and level are determined by the Council of Ministers of the member countries. WAEMU member states have the option of setting a reduced rate of between 5% and 10% for a maximum of ten goods and services chosen from a list defined at community level and including manufactured milk³².
- The system of deductions (deduction of VAT paid by the company on its purchases) and the reimbursement scenarios. There is no provision for VAT reimbursements for businesses that are not themselves taxable.

Without prejudging the policies that will be introduced in other countries in the region, an analysis of the situation in the three countries studied shows a range of situations. Thus:

- In Burkina Faso:
 - o the VAT rate is 18%,
 - o the threshold for compulsory VAT registration is FCFA 50 million (under the normal tax regime; smaller businesses are covered by the simplified actual regime or the micro-business contribution regime),
 - o milk in all forms, including milk powder, is exempt from VAT. This is also the case for fat filled milk powder. However, VAT is charged on yoghurts.
- In Nigeria:
 - o the VAT rate is 7.5%,
 - o companies with a turnover of less than NGN 25 million (FCFA 19.7 million) are not VAT registered,
 - o milk in all its forms, including milk powder, is exempt from VAT. This is also the case for

³¹ ECOWAS, 2009, WAEMU, 1998 and WAEMU, 2009.

³² The list contains fourteen products: 1) Goods: edible oils; sugar; manufactured milk; pasta; livestock and poultry feed; day-old chicks; maize, millet, sorghum, rice, wheat and fonio flour; agricultural equipment; computer equipment; solar energy generation equipment. 2) Services: accommodation and catering services provided by hotels, restaurants and similar approved bodies and services provided by approved tourist operators; hire of agricultural equipment; repair of agricultural equipment; services provided by undertakers.

fat filled milk powder (except packs between 12.5 and 25kg). However, VAT is charged on yoghurts³³.

- In Senegal:
 - o the VAT rate is 18%,
 - o companies with a turnover of less than FCFA 50 million are not registered for VAT (single global contribution – CGU),
 - o in addition to unprocessed fresh milk, liquid milk derived from fresh milk has been exempt from VAT for the last three years. VAT is charged on other dairy products and on fat filled milk powder.

5) THE REGIONAL PLATFORM FOR THE PROMOTION OF LOCAL MILK

In 2018, following the mobilisation of the actors in the *Mon lait est local (My milk is local)* campaign, and in response to the region's growing dependence on imports of milk powder and fat filled milk powder, ECOWAS launched a process to define a *Regional Offensive for the Promotion of Local Milk Value Chains in West Africa*, set out in a strategy and investment plans at regional and national level. The regional strategy document (its general approach is illustrated in Figure 14) and the regional Priority Investment Programme (PIP) were validated by ECOWAS member states and disseminated in June 2020.³⁴ The aim of the offensive is to '*support all initiatives and strategies for local milk value chains development in the ECOWAS region*', in order to '*contribute to the promotion of strategic products for food security and food sovereignty in West Africa*'.

The strategy document begins by analysing the issues and challenges facing the West African dairy commodity chains. The content is extremely clear about the responsibility of trade policies. After noting that '*the West African sectors are increasingly overwhelmed by imports of dairy products, particularly fat filled milk powder*', it attributes this situation to '*a combination of three factors*':

- *The shortcomings of local production systems (low productivity, weakness and high seasonality of domestic supply, collection difficulties linked to the extreme fragmentation of supply);*
- *Trade policies laxity which enshrine a broad opening of the regional market, with a very low level of protection, particularly for certain products such as milk powder. This market opening also results in massive imports of products of often dubious quality;*
- *And finally the aggressiveness of multinationals, which in search of a regional market, are setting up processing units and distribution arrangements based on imported milk powder as a raw material.*

On the basis of this analysis, the document stresses the need, in particular, to '*put in place standards that give community preference to products incorporating fresh local milk*', as well as '*tax measures (customs duty and internal taxation) favourable to investment [in the local milk sector]*'.

The document goes on to analyse the strengths, opportunities and lessons learned from current experiences, and sets out the general approach of the strategy, with one of the expected outcomes being that '*taxation and other regulatory trade defence measures on dairy products and regulatory standards (non-tariff barriers) are incentives for the local milk value chains development*'.

The various strategic focuses and components are then described. Within the fourth strategic focus ('*Promoting an enabling environment for the promotion of local milk value chains*'), the first component deals with '*setting and applying incentive measures for the local dairy industry development*'. It proposes that policymakers should '*realistically envisage a fiscal policy that encourages*' the promotion of the local

³³ However, we were unable to verify that this VAT is actually collected, even from the largest retailers (VAT is not mentioned on till receipts).

³⁴ ECOWAS, 2020-1 and ECOWAS, 2020-2

milk sector. This means that it is necessary:

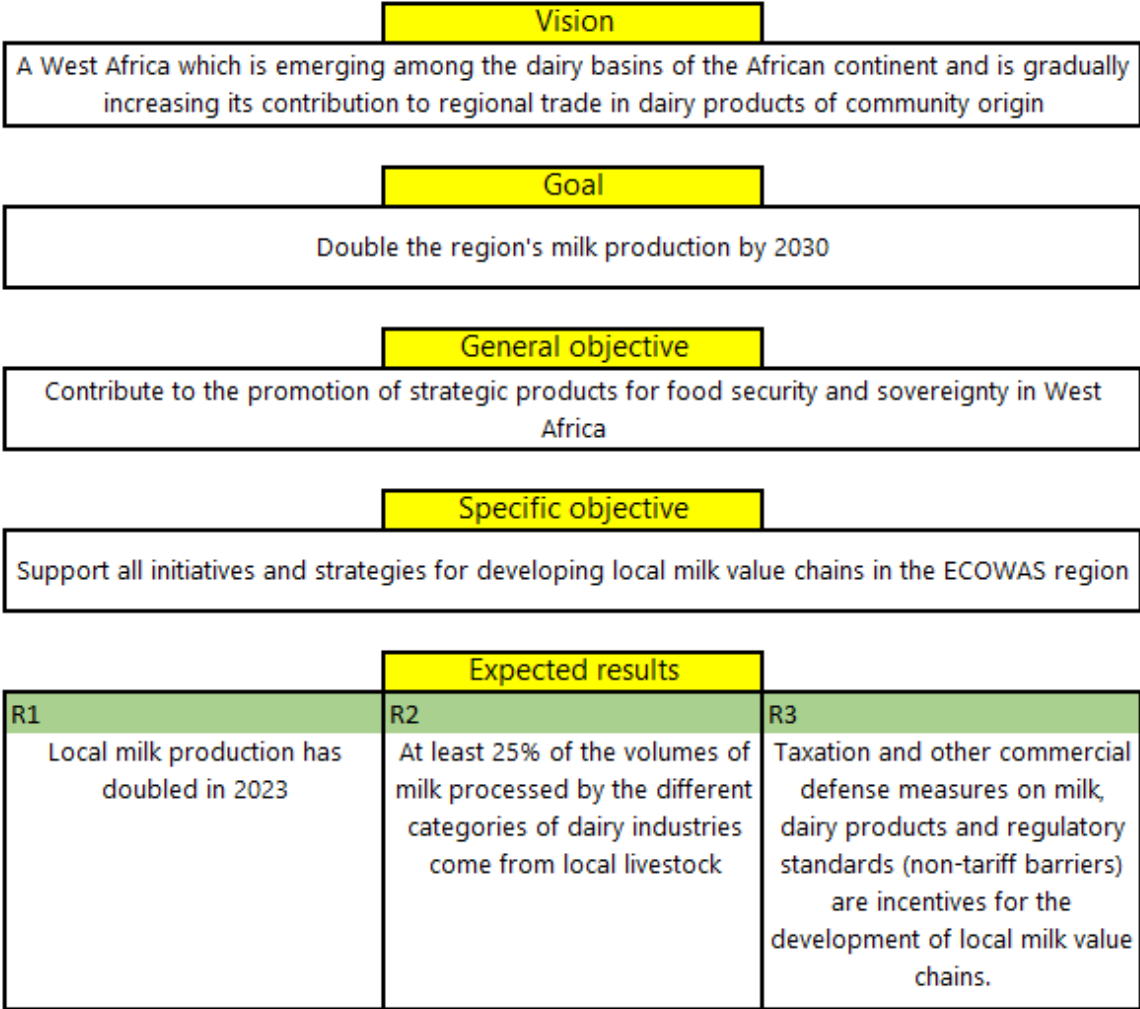
- First, to *'reconsider customs duty taxation, including customs duties and appropriate trade defence measures. This action requires a re-categorisation of all dairy products in the fifth band at 35% of the ECOWAS Common External Tariff;*
- Second, to *'adopt domestic tax incentives: (i) lowering or subsidising interest rates on credits allocated to initiative bearers, (ii) lowering or exempting local products from VAT to improve their competitiveness on the regional market'.*

The Priority Investment Programme includes these different aspects (*'[lowering VAT] on national or specific products', 'increasing the price of imported products through trade policies'*).

So far, the Regional Offensive for Local Milk has received little support from international cooperation actors. Various forms of international cooperation support for the dairy sector are being implemented, but this is happening directly at the national level and outside the framework of ECOWAS regional policy. The European Union therefore favours national projects rather than support for a regional approach. With regard to the *Regional Dialogue and Investment Project for Pastoralism and Transhumance in the Sahel and West Africa* (PREDIP), the European Union preferred to continue managing the project directly through calls for projects, which resulted in the project being split into several parts with no links to ECOWAS. The *Regional Pastoralism Support Project* (PRAPS), which focuses on pastoralism and is funded by the World Bank, is the responsibility of CILSS rather than ECOWAS, and it is not closely linked to the Regional Offensive for Local Milk. These methods of international cooperation do not seem to have helped to strengthen a regional policy strategy in favour of the local milk sector.

However, Swiss cooperation is financing twenty-three projects in support of the Offensive through ECOWAS over the period 2022-2026. These projects, worth USD 7.3 million, should help to promote youth employment in the dairy sector in West Africa and Chad. In addition, the *Support Project for the Regional Offensive for Local Milk in West Africa* (PAOLAO), due to start in early 2024 with support from the French Development Agency (AFD), will, as its name suggests, provide specific support for the Regional Offensive for Local Milk.

Figure 14 – General approach of the strategy of the *Regional Offensive for Promotion of Local Milk Value Chains in West Africa*



V. THE THEORETICAL FRAMEWORK JUSTIFYING THE MOBILISATION OF TAX AND TRADE DEFENCE POLICIES

Economics and history both teach us that any increase in demand and in the prices offered to producers gives them a powerful incentive to increase production volumes (price elasticity of production), provided they have the technical and economic means to do so. Contrary to the narrative that is sometimes heard that it is enough in West Africa to concentrate exclusively on direct support for the various actors in the sector (producers, collectors, processors) in their production activities (technical support, supplies, investments, cash flow), it is important to provide this direct support and also create the conditions for increasing demand and higher prices for livestock farmers **simultaneously**. The improvement in productivity can then reduce the unit cost of milk and dairy products and result in a lower price.

Policies that influence prices, particularly the **relative prices of imported and local products**, are among those likely to increase demand and production, and consequently to promote the local milk sector in West Africa. In particular, they include **trade policies and tax policies**.

1) EFFECTS OF A CHANGE IN TRADE POLICY

Trade policy – in particular the level of the ECOWAS Common External Tariff (CET) – influences the price of the various dairy products and derivatives imported by West African countries: this applies to consumer prices and also to the prices paid by processors for imported powder (whole milk powder or fat filled milk powder). When a trade policy is intended to protect local production against imports, this is known as a trade defence policy. An increase in the CET can have various types of direct and indirect effects:

- **Direct effects** on consumers and processors:
 - Higher prices mean a reduction in purchasing power for consumers.
 - The effects of the increase in the price of milk powder purchased by processors depends on their decisions: either they will pass on the price increase to distributors and consumers (in which case there will be no direct effect on processor margins), or they do not pass on the increase (or only pass it on partially) and reduce their margins.
- **Indirect effects** for the local milk sector:
 - Resulting from **consumer choices**:
 - Consumers can reduce the volume of imported products they consume (price elasticity of demand) and choose to partially substitute local products for imported products in order to maintain their purchasing power.
 - The increase in the price of imported products for consumers then has a partial knock-on effect on the price of equivalent products or substitute products available from the local milk sector (this is the result of competition between products).
 - Resulting from **choices at the processing level**:
 - If the price of imported powder rises, the processor may choose to use local milk instead.
 - To achieve this, the processor may increase the price of milk purchased from farmers to encourage them to increase the volumes they produce and collect.

The increase in the CET on imported powder (which can be differentiated according to product) can therefore be used as one way of supporting the local milk sector, whether the aim is to:

- **Increase demand** for products from the local milk sector among both consumers and processors, as these products will be better able to compete with imported powders and products made from them; or to

- **Increase the amount paid to local milk sector actors**, particularly farmers, both as a result of the increase in volumes and as an indirect effect of the increase in demand for the sector's products. An improved producer price may lead to producers being more interested in and having a greater capacity to invest in increasing and improving production (price elasticity of production).

The increase in the level of the CET would affect a proportion of poor consumers. However, a distinction should be made between poor consumers in urban areas, who would be negatively affected, and poor consumers in rural areas, where the poverty rate is much higher (for example, in Senegal it is 53.6%, compared with 19.8% in urban areas)³⁵ and where there is a contrasting situation. In rural areas, the impact would depend on the situation of households: it would be negative if they are net purchasers of dairy products, neutral if they simply consume the dairy products they produce, or positive if they sell a proportion of the dairy products they produce.

In addition, the **temporary suspension of the CET** in the event of a sharp rise in global prices makes it possible to offset all or part of the effects of such rises, thereby protecting consumers. Conversely, a **safeguard consisting of a temporary increase in the CET** in the event of a sharp fall in the global price will prevent increased competition with the local milk sector so that the fall in price is passed on in the price paid to farmers.

2) EFFECTS OF A CHANGE IN TAX POLICY

Tax policies, and in particular the application of VAT to dairy products³⁶, are national policies, despite the existence of a community framework aimed at achieving a degree of harmonisation across the WAEMU and ECOWAS countries.

VAT is a tax on consumption. In addition to the '*excluding tax*' price, the consumer pays an amount corresponding to VAT.

An economic intermediary (importer, processor, distributor) who is subject to VAT therefore collects VAT on behalf of the state (VAT applied to the products it sells). At the same time, however, it pays VAT to its suppliers on the means of production it purchases (raw materials, equipment and inputs). It therefore has to pay the state the difference between the VAT collected and the VAT paid: to calculate this amount it has to pay the state, it deducts the VAT paid (deductible VAT) from the VAT collected. Generally speaking, when an economic operator is not registered for VAT, it is not reimbursed for the VAT it has paid (there is no deduction).

VAT is usually also charged on imported products: the importer of goods (e.g. imported powder or other inputs – such as packaging, fermenting agents or colourings – and equipment used by processors) pays VAT to the state.

The West African region does have some variation in the taxation of dairy products (see Section IV).

Exempting on products made from local milk from VAT may have **different types of direct or indirect effects**, depending on how the actors involved respond to it:

- If the scrapping of VAT is **passed on to consumers**, it will or may result in:
 - increased purchasing power;
 - an increase in demand for products from the local milk sector (price elasticity of demand),

³⁵ ANSD, 2021.

³⁶ We are referring here to domestic taxation; the imposition of tariffs on imports (trade policy) also constitutes a form of taxation.

- possibly substituting these at the expense of imported products;
- an upward adjustment in the price of products from the local milk sector (due to an increase in demand), offsetting the effect on prices of scrapping VAT.
- If it is not (or only partially) passed on to consumers, scrapping VAT:
 - will improve the margins of the economic actors who charge VAT, particularly local milk processors, making this processing activity more attractive for them;
 - may then encourage processors to substitute local milk for imported powder, resulting in better prices being paid to farmers to secure a larger supply.

VAT exemption for products from the local milk sector can therefore be used as one of the tools to promote the local milk sector.

3) COMBINED EFFECTS OF A CHANGE IN TRADE POLICY AND TAX POLICY

Parallel changes in trade policy (increase in CET) and tax policy (VAT exemption for products made from local milk) could also be considered in order to improve the effectiveness of these policies and offset some of the negative effects. This is because:

- the two measures both help to improve the competitiveness of local milk compared with imported powders (cumulative effect);
- the scrapping of VAT may offset the negative impact of the increase in the VAT rate on consumers' purchasing power (offsetting effect);
- the increase in the CET may offset the negative impact of scrapping VAT on budget revenues (offsetting effect).

4) EFFECTS OF QUANTITATIVE RESTRICTIONS ON IMPORTS

Various forms of quantitative restrictions on imports can be implemented:

- **A ban on imports of fat filled milk powder** would result in other products being substituted for it: whole milk powder, skimmed milk powder or local milk. As the price of whole milk powder and local milk is higher than that of fat filled milk powder, this would result in higher prices for consumers. Increased demand for local milk would lead to a rise in its price.
- **Making powder imports conditional on the inclusion by processors of local milk in their supplies** would bring about an increase in demand for local milk and in its price, and a reduction in powder imports. The extent of these effects would depend on the amount of local milk that is required to be used.

VI. THE POSITIONING OF THE VARIOUS ACTORS

1) WEST AFRICAN ACTORS

The choices made regarding the current CET for dairy products reflect the determination of **West African leaders**:

- first, to promote the ability of the dairy processing industries using imported powder to compete with imports of finished products (to which higher customs duties apply),
- second, to provide low-cost basic foodstuffs for consumers.

Greater protection of the regional market against imports of bulk milk powder does not appear to have been taken into consideration when the CET was implemented. Similarly, this product was not put forward as a sensitive product by West African countries when the Economic Partnership Agreements (EPAs) with the European Union were negotiated. The same is true for fat filled milk powder, bearing in mind that imports of this type of product had not then reached the scale they have today and that there was not necessarily a strong awareness in political circles that this was a different product from milk powder and that the cost of importing it was much lower than the cost of milk powder.

Discussions during the ECOWAS *Regional Offensive for the Promotion of Local Milk Value Chains* raised the issue of weak protection, which is specifically mentioned in the regional strategy document (see Section IV, Sub-section 5). The contents of this strategy reveal a clear awareness of the ways in which competition from imported powders jeopardise food security and sovereignty, and a political will on the part of the region's states to remedy the situation.

In addition, after ten years of implementation of the ECOWAS CET, a review is planned for 2024. The guidelines set out in the ECOWAS document mentioned above may suggest that there is a consensus among policymakers in favour of ambitious trade and tax policy measures. However, negotiations can be expected on this subject. This matter is probably not so clear-cut, and there will be a reluctance to make such changes, both within ECOWAS and among national political leaders, with different countries adopting different positions. Apart from the fact that leaders in some countries may tend to consider that the benefits of free trade outweigh the drawbacks, and that given its comparative advantages, West Africa is not necessarily in a position to produce milk for its whole population, the main arguments that have been heard are as follows:

- the fear of negative effects on consumer purchasing power,
- the idea that regional production is not sufficient to cover consumer needs anyway, so it is necessary to import powder on a massive scale,
- questions about the technical and political feasibility of trade and tax policy measures. The questions about technical feasibility concern the differentiation of VAT according to product type, or whether it is really possible to make the granting of import licences to processors dependent on their commitment to collect local milk, when a large proportion of imports are not received by the processors themselves. The key questions relating to political feasibility concern the need for a regional agreement to raise the CET and the risks of contravening WTO commitments.

As for measures involving quantitative restrictions (a ban on the import of fat filled milk powder, making imports conditional on the use by processors of a certain quantity of local milk), some of these have already been implemented in Nigeria, where industrial importers wishing to obtain import licences must demonstrate that they are investing in the integration of local milk in their production. There are currently no quantitative targets or requirements for its integration, but the issue is high on the country's political agenda. This does not appear to be the case in other countries in the region, but interviews in Senegal and Burkina Faso reveal a high level of interest in measures of this type.

As far as the **economic actors** are concerned, it is primarily the farmers' organisations (at regional level, APSS, RBM and ROPPA) and the mini-dairies and certain industrial actors using local milk or mixed supplies that have been working together in the *Mon lait est local (My milk is local)* campaign and on the *Platform for the Promotion of Local Milk* to call for improved trade protection and tax measures favourable to local milk. Mini-dairies that create jobs for women are particularly involved. These economic actors have been supported by various civil society organisations, such as the NGO Oxfam.

Manufacturers using imported powder, and particularly the European multinationals and their subsidiaries, believe that an increase in the CET on imported powder would harm their competitiveness. On the whole, they are not in favour of quantitative import restrictions, as they feel that local milk production is insufficient. They argue that any increase in the cost of raw materials would have a knock-on effect on consumer prices. Such price rises in a context of high inflation could lead to a reduction in demand, smuggling and less expensive plant-based products (vegetable fat and soya-based cheese) being used to replace powder. A representative of one multinational told us that development policies for the sector should focus on increasing the productivity of milk production and on building infrastructure. These investments should be made through public-private partnerships. Given their economic power, multinationals and importers often have considerable influence over political decisions, although, as Roger Blein points out, they act essentially as 'hidden actors' with 'extensive negotiating power, but exercised in non-transparent circles'³⁷.

The opposition from multinationals to more protective sovereign trade policies may be echoed by the countries in which they are based and also by certain international institutions. However, the case of Nigeria shows that, when the political will is present, manufacturers and multinationals may be willing to enter into discussions to take responsibility for collecting and processing local milk. In reality, although the easy solution for dairy companies is to obtain cheap supplies of imported powder, the existence of genuine potential for the development of local dairy production and a profitable processing industry could encourage them not to use this easy solution for at least part of their supplies.

2) THE EUROPEAN ACTORS

The **European dairy industries**, including the cooperatives, are positioned first and foremost on the basis of their own economic interests. From this point of view, the West African market represents a market that is set to expand as a result of demographic growth. The European actors are well placed to increase their exports into this market, especially thanks to the development of fat filled milk powder production, which considerably reduces costs (the average cost of sourcing fat filled milk powder is 30% lower than the cost of whole milk powder), while at the same time making good use of milk fat in the form of butter. Most dairy companies now produce fat filled milk powder. It is a way of resolving the structural imbalance on the global market between the demand for milk fat (butter) and milk protein. While there is no difficulty selling milk fat, operators around the world are looking for outlets for proteins, particularly skimmed milk powder. Fifteen years ago, milk was 60% protein and 40% fat, but this ratio has now been reversed. This is linked to the rehabilitation of animal fat, which had long been warned against by the medical profession.

Pressure from civil society organisations and social changes more generally have led companies to make social and environmental responsibility (SER) commitments over the last few years, particularly in Northern Europe where there is a stronger presence of NGOs. In France, the national interprofessional centre for the dairy economy (CNIEL), which brings together livestock farmers, private and cooperative manufacturers and distributors, has drawn up a social and environmental responsibility (SER) strategy as part of the development of a sector plan following the *Etats généraux de l'alimentation* (national food conference – EGA) in 2017. One of the commitments in the SER strategy is to 'export responsibly', i.e. in a way that does not compete with local production in the importing countries. In particular, this means prioritising exports of high added-value products that are less likely to compete with local production. This subject has been taken up by professionals (farmers and cooperative actors) who are also involved in the non-profit sector. That said, the CNIEL's SER strategy is a collective commitment, but it is not binding on all its members. In fact, no company, either in France or in other European countries, seems to be asking itself whether its exports are competing with local production. Where the international dimension of SER is present, it is more in terms of supporting the development of dairy production in

³⁷ Blein Roger *et al.*, 2021.

countries in the global South than in terms of responsibility for the exports themselves. The production and export of fat filled milk powder is seen as a way of meeting the need among consumers for healthy, inexpensive products.

For example, some companies are implementing a strategy of developing local sourcing in the countries of the South. Examples include Friesland Campina (the Netherlands) or Arla (Denmark) in Nigeria, acting under pressure from the public authorities, Friesland Campina in Côte d'Ivoire under the terms of an agreement with the Ivorian government, and Danone in Senegal, which is in partnership with dairy producer Laiterie du Berger³⁸. In France, as part of the ongoing development of its SER strategy, CNIEL has entered into a partnership with CIRAD to fund a Ph.D student's research into responsible exports of dairy products, with a view to organising a subsequent consultation on the subject.

In the early 2010s, there were talks between **European farming organisations**, which advocated a policy of controlling production and regulating milk prices (European Milk Board – EMB, Via Campesina Europe), **NGOs focusing on international solidarity** (Oxfam, SOS Faim, CFSI, etc.) and **West African farmers' and stockbreeders' organisations** (ROPPA, APESS, RBM). The aim was to develop an advocacy campaign highlighting the fact that the problems of these various parties were linked. Competition from low-priced European exports in the markets of the global South is largely due to the inadequacy or lack of a European policy on market regulation and subsidies that are decoupled from CAP (resulting in disguised export dumping), factors which also weaken European dairy farmers³⁹. This collaborative approach was strengthened by the end of milk quotas. The issue of fat filled milk powder exports was identified along the way, and the European authorities were asked – at the very least – to introduce a new export nomenclature to distinguish exports of these products from exports of real milk powder. In conjunction with the European Parliament's Committee on Development, where **a number of MEPs**, notably from the Green group, have become engaged with this issue, a report was produced as part of the ACP-EU Joint Parliamentary Assembly. A large-scale meeting was held with the European Commission in Brussels in 2020, at which the Commission recognised the need for greater transparency on exports of fat filled milk powder. A new nomenclature has been introduced.

Civil society advocacy has also focused on the interim EPAs, which have completely dismantled what little protection existed in regard to milk powder and fat filled milk powder. In addition, European civil society organisations have called, so far without success, for the creation of a complaints mechanism for use by organisations in the global South when European policies have negative effects. Work has also been done in the European Parliament, resulting in progress on the transparency of interventions relating to stockpiles. NGOs are also calling for the European Union to recognise the existence of dumping practices resulting from CAP subsidies. The European NGOs involved in advocacy work on the issue of milk in connection with the West African *Mon lait est local* (*My milk is local*) campaign are grouped together in the coalition *N'exportons pas nos problèmes* (*Let's not export our problems*).

As far as the **European Commission** is concerned, the Directorate-General for International Partnerships (DG INTPA) is very concerned about the consistency of public policies with development and aware of the importance of developing the local milk sector in West Africa and of competition from imports of European fat filled milk powder. However, it is argued that this is mainly a matter for the West African countries themselves: fat filled milk powder and the products made from it are marketed there at low prices due to the low level of protection, and they are often misrepresented as dairy products, which does not happen in the European Union. Particularly during the EPA negotiations, West African countries never raised the issue of milk at the political level. Specifically, they did not propose that milk powder and fat filled milk powder should be included on the list of sensitive products. In some countries, VAT is

³⁸ See Afdi, 2023.

³⁹ The question of coherence between the CAP and the development of small-scale farming in developing countries was discussed in the report by Levard Laurent and Martin Garcia Irene, 2019, which included an analysis of the issue of dairy exports.

not even charged on the imported powder. It is not the role of the European Commission to stand in their place as a defender of their local industries and raise this issue, especially as the Commission also has a mandate to defend European companies in the face of strong competition from companies in other countries (China, etc.). Should the West African states decide to place the issue of milk on the agenda for discussion in future, the European Commission would be more than willing to discuss the matter and support political decisions in favour of local milk. With regard to the Regional Offensive on Milk, our contacts at DG INTPA also told us that there was no financial support from the European Union because ECOWAS had not requested it.

The Commission's DG Agriculture does not see the growth of low-cost European exports as a problem, but sees it as a way of providing low-cost food for consumers, and therefore as a contributor to food security. European exports are thus not a problem, but part of the solution for consumers. Palm oil imported by countries in the form of fat filled milk powder represents only a very small proportion of palm oil imports into the region. The problems of the West African dairy sector are structural and it is not European exports that are hampering its development. African countries should first invest in the development of the dairy sector, especially on the basis of their Malabo commitments to devote 10% of the budget to agriculture. European investors can contribute to these investments. Our contacts at DG Agriculture believe that *'the interests of West African consumers and manufacturers have not been taken into account by the promoters of the Let's not export our problems campaign'*. The idea of dumping is contested on the grounds that decoupled subsidies are recognised by the WTO as green box subsidies, i.e. subsidies that do not distort markets. DG Agriculture is also concerned about the compatibility of any measures taken by African countries under the Regional Offensive on Milk (particularly Nigeria's non-tariff measures) with their WTO commitments. Our contacts were not particularly supportive of the creation of a specific customs code for mixtures of whey and fat filled milk powder to differentiate these from fat filled milk powder, arguing that such a decision should be taken with due regard for proportionality between the measure and the expected effect. In this case, it was argued, the expected objective was not about introducing specific customs duties, for example, but simply about obtaining statistical information, which does not justify the measure. If such a distinction is made, it should be on the basis of protein content.

We were unable to meet DG Trade for the purposes of this study, but previous contacts in the context of other studies have also shown that there is no recognition of the existence of problems associated with European exports. It should be added that, at a seminar on EPAs organised by Coordination Sud, the European Commission's representative stated that the European Union had no offensive interests to defend in the context of the EPA negotiations in the agricultural sector, except in the case of South Africa⁴⁰.

With regard to the environmental impact of using palm oil to manufacture fat filled milk powder, the European authorities do not consider that this raw material constitutes a problem in itself. They believe that the new legislation on imported deforestation will ensure that only palm oil produced under acceptable conditions is imported in future. It should also be noted that the European Union funds initiatives to promote European exports every year. European public funding has been used to promote exports of European milk and fat filled milk powders to West African markets.

⁴⁰ Levard Laurent and Bigot Amélie, 2014.

VII. ANALYSIS OF POSSIBLE TRADE DEFENCE AND TAX POLICY OPTIONS

1) THE OPTIONS STUDIED

Six trade and tax policy options (including options that combine various measures) were selected for this study.

The increase in the CET on imported powder and the reduction or scrapping of VAT on processed dairy products made from liquid milk (and hence, de facto, from local milk), which were advocated by those involved in the *Mon lait est local (My milk is local)*⁴¹ campaign, are explicitly mentioned in the guidelines of the *Regional Offensive for the Promotion of Local Milk Value Chains in West Africa* (see Section IV, Sub-section 5). These tools have also been highlighted in previous studies as potentially effective ways of improving the competitiveness of local milk, especially if they are combined⁴². In terms of tariff protection, these studies have also drawn attention to the benefits of treating whole milk powder and fat filled milk powder differently, as the latter is in a much stronger competitive position than the former. Senegal has already suspended VAT on pasteurised milk made from local milk.

In addition, price volatility on global markets justifies greater flexibility in the application of trade policy, with a safeguard mechanism:

- Safeguarding food security for consumers through a temporary suspension of the CET in the event of a sharp rise in global prices,
- Safeguarding actors in the local milk sector (farmers and processors) with additional temporary protection in the event of a sharp drop in global prices.

Those involved in the *Mon lait est local (My milk is local)* campaign have also defended this type of flexibility in principle⁴³.

For this reason, the study first examined the following three options:

- **Option 1:** increasing the CET on imported powder, differentiating between whole milk powder (10%) and fat filled milk powder (35%), with a mechanism for temporary suspension of the tariff in case of a sharp rise in global prices and a temporary safeguard mechanism in the event of a sharp drop in global prices. For the simulations, we used the flexibility proposal presented in Table 9, but other possibilities also exist.

⁴¹ Mon lait est local (My milk is local) campaign, 2019.

⁴² Levard Laurent *et al.*, 2019; Levard Laurent and Dr Dia Serigne Moussa, 2021.

⁴³ Mon lait est local (My milk is local) campaign, 2019.

Table 9 - Mechanism for a flexible CET regime as set out in Options 1, 3 and 6

		World price				
		More than 30% average price	Between +15% and +30% average price	Average price +/- 15%	Between -30% and -15% average price	Less than -30% average price
Whole milk powder		More than 4200 €/t	3700-4200€/t	2700-3700€/t	2300-2700€/t	Less than 2300€/t
		Safeguard for consumers		basic CET	Safeguard for local milk sector	
		Full suspension of CET 0%	Suspension of half of CET 5%		1,5 times basic production 15%	Doubling of basic production 20%
Fat filled milk powder		More than 2600 €/t	2300-2600€/t	1700-2300€/t	1400-1700€/t	Less than 1400€/t
		Safeguard for consumers		basic CET	Safeguard for local milk sector	
		Full suspension of CET 0%	Suspension of half of CET 17,5%		35%	1,5 times basic production 52,5%

- **Option 2:** Scrapping VAT on processed dairy products made from fresh milk.
- **Option 3:** Combination of Option 1 (CET increase and flexibility mechanisms) and Option 2 (scrapping VAT on products made from fresh milk).

Nigeria's National Dairy Policy⁴⁴ provides measures including an eventual ban (by 2025) on imports of fat filled milk powders, and making imports and the use of powders conditional on processors using 50% local milk within the next five years (with a gradual increase in the required level: 10% in the first year, then an additional 10% each subsequent year). As we have already mentioned, the principle of making imports conditional on commitments to the local milk supply has in fact been in force in Nigeria for several years, but with no specific requirement in terms of volume: companies merely have to demonstrate that they are investing in such supplies. Two options were simulated to incorporate this type of measure. With regard to making powder imports conditional on the use of local milk, it seemed appropriate to set a less ambitious target for the medium term (20% rather than 50%) to take account of the constraints on the development of milk production. The following two options were therefore included:

- **Option 4:** A ban on imports of fat filled milk powder.
- **Option 5:** Making the import and use of imported powders conditional upon the use of 20% local milk.

Finally, it seemed worthwhile to test an option combining an increase in the CET and the introduction of flexibility, the scrapping of VAT on fresh milk products and a ban on imports of fat filled milk powder, in order to increase the effectiveness of the policy as a whole. This gave us:

- **Option 6:** A combination of Options 3 and 4: Raising the CET rate for whole milk powder (10%) and making it flexible, a ban on imports of fat filled milk powder and scrapping VAT on processed dairy products made from fresh milk.

Although it was necessary for the purposes of this study to limit the number of options chosen for the simulations, the simplified commodity chain models that have been developed can easily be used to test other options in future.

⁴⁴ Republic of Nigeria, 2021

2) ASSUMPTIONS USED WHEN SIMULATING EFFECTS AND RESULTS RELATING TO PRODUCT PRICES

The effects of implementing the different policy options were modelled on the basis of a number of assumptions regarding:

- **Current prices and costs** at the various stages of the commodity chain. Estimates were made on the basis of information from country studies, global market data and data from previous studies, with some adjustments to ensure overall consistency (see Part I).
- The **structure of overall milk consumption in the region**, by type of product, type of processor (VAT registered or not) and origin of the raw material. These assumptions were based on (production and import) statistics and expert estimates. These estimates necessarily involve a margin of error. However, this is unlikely to significantly alter the results of the simulations. Details of the assumptions used are presented in Appendix 4.
- The **effects of implementing the various options**. The assumptions were based on surveys of economic actors and consumers and on expert opinions. The findings of the consumer surveys are summarised in Box 2. The approach used to establish the assumptions necessarily involves a margin of error. However, this does not call into question either the direction of the various effects (prices, purchasing power, income, added value, tax revenue) or the relative importance of the effects set out in the options. The assumptions concerning substitution effects between products are generally cautious, but more ambitious assumptions could also be tested using the commodity chain models developed for the study. A distinction is made between assumptions concerning costs and margins, prices and volumes. Table 10 sets out the various assumptions on prices and volumes.

Box 2: Summary of consumer survey findings

Around fifty consumer surveys were carried out for the three countries studied, mainly in urban areas, outside consumer outlets (shops, markets and supermarkets). Although the method used does not allow us to obtain statistically representative results, a number of points do stand out clearly. These were taken into account in establishing the assumptions.

First, almost all the consumers surveyed consumed dairy products on a regular basis. A large majority consumed both repackaged imported powder and yoghurt (often mixed with cereals). Consumption of cheese was less frequent, but it was not negligible. Liquid milk seemed only to be consumed by a minority.

The main factors explaining the consumption of repackaged powder were the low price (particularly since it can be bought in small quantities) and the quality of the product (taste, nutritional value). Ease of access was sometimes also mentioned. In the case of yoghurts, the emphasis was more on quality (taste and nutritional quality), although price was sometimes mentioned too.

The spike in prices over the last two years has most often resulted in an overall fall in consumption of dairy products and derivatives, confirming the existence of overall price elasticity of consumption. Similarly, in the event of a sharp increase in the price of repackaged powder (the scenario proposed was a 50% increase, which is much higher than the assumptions made in the various options examined in our study), the overall reduction in the consumption of dairy products and derivatives would affect the majority of consumers. Substitutions for other products were mentioned by around half of the consumers concerned, often in favour of cereal-based products (porridges).

Around half the consumers surveyed knew the raw material (milk or powder) used to make dairy products. Awareness of the existence of fat filled milk powders was low. When consumers were aware of the raw material used, this rarely influenced their choices, although there was a marked preference for products made from local milk because of its quality (natural, nutritious products) and sometimes because of its positive impact on the country (job creation, income). This may seem paradoxical, but in reality it can be explained by a combination of three key factors that limit consumption of these products: their relative price (compared with other dairy products and derivatives), low availability and quality (it should

be noted that some consumers are put off by their taste and smell, which may be due to storage problems, but also to a shift in dietary habits towards more standardised and 'sanitised' products). Improvements in these three areas would lead to increased purchases by consumers. This confirms the importance of the efforts that need to be made, both to increase the supply of products from the local milk sector and improve their quality, and in terms of relative prices. In the short term this involves the use of tax and trade policies (which can make use of the relative competitiveness of imported powders and local milk) and in the longer term it will require improvements in the local milk sector's productivity and intrinsic competitiveness (the cost price of the products made from local milk).

a) Assumptions on costs and margins

The costs (other than milk and milk products and derivatives) **and margins** of importers, farmers, processors/repackagers and distributors are constant, whatever option is chosen. Stable margins mean that changes in the price of raw materials or purchased products are passed on throughout the commodity chain. As for the scrapping of VAT, this has a knock-on effect partly on the purchase price of milk for processors (an increase) and partly on the selling price (a reduction in the price including VAT).

Table 10 - Price and volume assumptions for the various options

	Price of milk paid by processors: based on the price elasticity of production, i.e. :		Prix sortie usine	Prix au consommateur	Substitution of fat filled powder intended for processing with whole milk powder	Substitution fat filled powder intended for processing with local milk	Substitution of fat filled powder intended for processing with whole milk powder	Substitution of reconditioned fat filled milk powder with whole milk powder	Substitution of reconditioned powder with local milk	Share of the increase in demand from the formal sector translating into growth in milk production
Option 1 - CET to 35% for fat filled milk powder and 10% for whole milk powder + temporary mechanisms for protection of consumers and the sector	1		Transmission of price variations (constant processor margins)	Transmission of price variations (constant distributor margins)	0%	5%	5%	0%	5%	75%
Option 2 - Scrapping VAT on processed dairy products made from fresh milk					0%	5%	5%	0%	0%	
Option 3 -CET to 35% for fat filled milk powder and 10% for whole milk powder + scrapping VAT on processed dairy products made from fresh milk					0%	20%	20%	0%	10%	
Option 4 - A ban on imports of fat filled milk powder					90%	10%	0%	95%	5%	
Option 5 - Making the import and use of im-ported powders conditional upon the use of 20% local milk					0%	20%	20%	0%	0%	
Option 6 - ban on imports fat filled powder + CET to 10% son whole milk powder + scrapping VAT on products made from fresh milk					75%	25%	25%	90%	10%	

b) Assumptions and results relating to price trends

Concerning **prices**:

- The **resale price of imported powders on the regional market** is automatically impacted by the level of the CET.
- The **purchase price of local milk** is linked to the overall demand for milk, with an elasticity of 1. This means, for example, that a 10% increase in demand and production results in a general increase of 10% in the price of milk paid to farmers by processors or actors in informal sectors. In practice, experience shows that there is a link between the price of powder paid by processors and the price of milk; in fact, we were informed in Nigeria that the former is used as a reference for setting the latter. It should also be noted that the increase in the price of milk powder and fat filled milk powder in the regional market in the past four years has been accompanied by a rise in the price of local milk, although this rise is partly due to the increase in production costs and general inflation. Similarly, the example of Senegal's recent policy of scrapping VAT on pasteurised fresh milk shows that measures of this kind result in an increase in the price of milk paid by processors. The increase in demand for local milk resulting from its improved competitiveness compared with imported powders (following an increase in the CET or the scrapping of VAT on products made from fresh milk) therefore leads to an increase in its price. It was also assumed that an increased demand for milk from formal processors would result in an increase in milk production equivalent to 75% of the first increase. That is because we can assume that a proportion of the new supplies to processors (25% under this assumption) would come from milk previously consumed by producers or marketed through informal channels being transferred to formal processing channels. Finally, the use of a single coefficient for the elasticity of production in relation to the purchase price of milk paid to farmers allows the question of the link between production and the price paid to producers to be dealt with in a uniform manner whichever option is simulated. For example, if one option results in an overall increase in demand for fresh milk that is twice as large as the increase in another option, the increase in the price of milk paid to farmers will also double. It should be noted that we have not included price reductions linked to possible productivity gains in milk production, as the simulations concern a relatively short time horizon during which productivity therefore remains stable. However, in the medium and long term, it is likely that a strong increase in milk production would enable such productivity gains to be achieved, and prices would therefore come down.

These assumptions lead to the changes in the prices of the various raw materials used in the transformation process shown in Table 11. These trends account for the changes in processors' behaviour (see volume effects, below).

Table 11 - Price of raw materials for dairy processing based on the different options

In FCFA/L EqMilk	Whole milk powder	Fat filled powder	Local milk
Reference situation :	404	299	450
Option 1 - CET to 35% for fat filled milk powder and 10% for whole milk powder + temporary mechanisms for protection of consumers and the sector	423	381	480
Option 2 - Scrapping VAT on processed dairy products made from fresh milk	404	299	462, and VAT exemption
Option 3 -CET to 35% for fat filled milk powder and 10% for whole milk powder + scrapping VAT on processed dairy products made from fresh milk	423	381	532, and VAT exemption
Option 4 - A ban on imports of fat filled milk powder	404	Banned	485
Option 5 - Making the import and use of im-ported powders conditional upon the use of 20% local milk	422 (Price of blend 80% WMP, 20% local milk)	338 (Price of blend 80% WMP, 20% local milk)	497
Option 6 - ban on imports fat filled powder + CET to 10% son whole milk powder + scrapping VAT on products made from fresh milk	423	Banned	544, and VAT exemption

While the relative competitiveness of local milk is improved with the various options, some of the increased interest in this raw material among processors cannot be read directly from Table 11, as it is also a result of increased consumer demand for yoghurts made from local milk due to the scrapping of VAT. Of course, this depends on the initial level of VAT (an average of the three countries studied was used for the simulations, i.e. 13% of the price including VAT). Pasteurised milk is already exempt from VAT in the three countries studied. In the case of Option 5, it is not so much the relative price of local milk that encourages its use as the requirement to include it in processing.

- The **ex-factory price** of dairy products and derivatives is based on the purchase price of the raw material and on VAT-related measures (price changes are transmitted), while other processor costs and margins remain unchanged.
- The **price (including VAT) of dairy products and derivatives paid by consumers** is based on the purchase price paid by distributors and the VAT-related measures (transmission of price changes), if other distributor costs and margins remain unchanged.

These assumptions result in the changes in prices (including VAT) for the various processed products that are shown in Table 12. The new prices help to account for changes in consumer demand and indirectly also for changes in the behaviour of processors (increased production of products for which consumer demand is higher, see volume effects, below):

Table 12 - Changes in prices (including VAT) paid by consumers under the various options for products processed in the region, depending on the origin of the raw material

In FCFA/L EqMilk	Yogurt processed in the region			Pasteurised milk processed in the region		
	made from milk powder	made from fat filled powder	made from local milk	made from milk powder	made from fat filled powder	made from local milk
Reference situation :	1366	1362	1366	1125	919	1100
Option 1 - CET to 35% for fat filled milk powder and 10% for whole milk powder + temporary mechanisms for protection of consumers and the sector	1388	1459	1400	1146	995	1130
Option 2 - Scrapping VAT on processed dairy products made from fresh milk	1366	1362	1243	1125	919	1112
Option 3 -CET to 35% for fat filled milk powder and 10% for whole milk powder + scrapping VAT on processed dairy products made from fresh milk	1388	1459	1314	1146	995	1189
Option 4 - A ban on imports of fat filled milk powder	1366	Banned	1406	1125	Banned	1135
Option 5 - Making the import and use of im-ported powders conditional upon the use of 20% local milk	1404 (Price of blend 80% WMP, 20% local milk)	1405 (Price of blend 80% WMP, 20% local milk)	1419	1142 (Price of blend 80% WMP, 20% local milk)	970 (Price of blend 80% WMP, 20% local milk)	1138
Option 6 - ban on imports fat filled powder + CET to 10% son whole milk powder + scrapping VAT on products made from fresh milk	1388	Banned	1325	1146	Banned	1189

In red: products with a comparative advantage over similar products made from other raw materials

The figures correspond to an average for commodity chains in which processors are registered for VAT and those in which they are not

In the reference situation, pasteurised milk made from fat filled milk powder has a clear comparative advantage over pasteurised milk made from whole milk powder or from local milk. By contrast, the price of yoghurt does not vary much according to the type of raw material used. This illustrates the fact that the actors in the sector (processors and distributors) exploit consumers' failure to differentiate between products on the basis of the raw material used, allowing them to make higher margins by using fat filled milk powder, which clearly reinforces their interest in using this type of raw material. Options 1, 2 and 3 would give a slight comparative advantage to yoghurts made from local milk (and to those made from whole milk powder in the case of Option 1), which would steer consumer choice towards products of that type. In Options 4 and 6, a balance is found between products (yoghurts and pasteurised milk) made from whole milk powder and those made from local milk, while products made from fat filled milk powder disappear, which would be very favourable for local milk. In Option 5, the interest in local milk would come not so much from consumers as from processors, because of their obligation to use 20% local milk.

c) Assumptions regarding changes in volume

Concerning volumes:

- In Option 4 (a ban on fat filled milk powder), the proportion of **fat filled milk powder intended for processing replaced by whole milk powder** is 90%, with local milk being substituted for 10%. In Option 6 the proportion is 75%, with local milk being substituted for 25%. That is because this option uses a combination of measures to make local milk more competitive than whole milk powder, the only powder likely to be used by processors if fat filled milk powder is banned. No substitution occurs in the other options, either because there is no change in relative competitiveness between the two products (Options 2 and 5), or because fat filled milk powder remains much cheaper despite the improvement in the relative competitiveness of whole milk powder (Options 1 and 3).

- The **proportion of fat filled milk powder intended for processing which is replaced by local milk**. This is only 5% in Option 1 (increase in the CET) and Option 2 (scrapping of VAT on products made from fresh milk), as these options only slightly alter the relative competitiveness of local milk compared with fat filled milk powder, but there is still an improvement in competitiveness at consumer level for yoghurts made from local milk and therefore an increased demand for this type of product. The change is 10% in Option 4, where processors only have the choice of whole milk powder, which is more expensive than fat filled milk powder, or local milk, with a competitive balance between yoghurts or pasteurised milk made from these two types of raw material at consumer level. When compared with the reference situation, in which a large proportion of products were made from fat filled milk powder, there is therefore a positive effect on demand for products made from local milk. The proportion of fat filled milk powder intended for processing that is replaced by local milk is 20% in Option 3, where the combination of the increase in the CET and the scrapping of VAT on products made from fresh milk significantly improves local milk's competitiveness (see above) and where demand for yoghurts made from local milk is also stimulated by their comparative advantage (see above). Option 5 corresponds to a required substitution rate of 20%. For Option 6, we have chosen a rate of 25% as the effects of scenarios 3 and 4 are combined.
- The **proportion of whole milk powder intended for processing that is replaced by local milk**. This is 0% in Options 1 (increase in the CET) and 2 (scrapping of VAT on products made from fresh milk), as these options only marginally alter the relative competitiveness of local milk compared with whole milk powder (although yoghurts made from local milk become more competitive at the consumer level). The change is also 0% in Option 4, which does not change the relative competitiveness of the two products. It is 20% in Option 3, where combining the increase in the CET with the scrapping of VAT on products made from fresh milk improves the competitiveness of yoghurts made from local milk at consumer level. Option 5 corresponds to a required substitution rate of 20%. For Option 6, we have chosen a rate of 25% as the effects of scenarios 3 and 4 are combined.
- The **proportion of repackaged fat filled milk powder replaced by whole milk powder**. We have only included substitution assumptions in Options 4 and 6, where fat filled milk powder is banned (95% and 90% respectively, with local milk replacing the rest). In the other options, either there is no change in relative competitiveness between the two products (Options 2 and 5), or fat filled milk powder remains much cheaper despite the improvement in the relative competitiveness of whole milk powder (Options 1 and 3).
- The **proportion of repackaged powder replaced by local milk**. The assumptions are very cautious so as to take account of dietary habits and the limited development of local milk marketing networks in towns and cities: 0% in Options 2 and 5 (marginal or zero effect on the relative competitiveness of the two products), 5% in Option 1 (significant increase in the price of fat filled milk powder) and Option 4 (fat filled milk powder is banned and replaced by more expensive whole milk powder), 10% in Options 3 and 6 (significant changes in relative competitiveness, particularly the substitution of whole milk powder for fat filled milk powder in Option 6). Although these assumptions are cautious, more extensive substitution behaviour could be expected in the medium term, as dietary habits change in favour of local milk and distribution networks develop in urban areas.
- **In conclusion:**
 - o **Substitution between products** is predicted, first due to an increase in the relative competitiveness of local milk for processors, and secondly from increased consumer demand for local milk products due to the relative increase in the price of products made from imported powders. Surveys among consumers show that they are sensitive

to prices, and that their choices will therefore shift as the relative prices of different products vary.

- The question of **the overall price elasticity of dairy product consumption**, which was again confirmed by consumer surveys, was incorporated indirectly into the simulations: for every increase of 100 litres of local milk on the part of the processors, part (25 litres) comes not from an increase in production, but from a transfer of volumes to formal processing, at the expense of consumption by the farmers' families themselves or marketing in the informal sector. This is a way of integrating the aspect of price elasticity of demand. In reality, though, the simulations do not attempt to measure where the fall in consumption will occur (consumption by farmers' families, consumption derived from the informal sector). The key point is that (i) processors replace powder with local milk, (ii) this is accompanied by an overall fall in consumption and (iii) the overall price increase resulting from the different options is therefore accompanied by a fall in total consumption in the region. Price elasticity of aggregate demand (consumption) is therefore seen. The assumptions used imply a consumer price elasticity of aggregate demand of 0.2. For example, with Option 3, the average rise in consumer prices of 10% results in a fall in consumption (equivalent to the sum of production and imports) of 2%. This elasticity may appear low. It is in fact relatively high, given that a large proportion of consumption (80%) consists of consumption by farmers' families, who are not affected by price increases. However, as mentioned above, these families also tend to reduce their consumption if they have access to new markets (processing) or if they have opportunities to sell milk to processors at a higher price (+18% in Option 3). This type of transfer of use is also factored into the overall price elasticity of consumption.

3) THE RESULTS

Table 13 provides a qualitative summary of the effects of implementing the different options. Tables 14 and 15 present the results in greater detail and in quantitative terms.

Table 13: Qualitative summary of the effects of implementing the different options

	Producers' income	Consumer price		Value added and job creation	Tax revenue	Powder imports	local milk production	Rate of coverage of consumption by production
		In situation of average prices	In a situation of soaring world prices					
Option 1 - CET to 35% for fat filled milk powder and 10% for whole milk powder + temporary mechanisms for protection of consumers and the sector	+	+	=	+	+	-	+	+
Option 2 - Scrapping VAT on processed dairy products made from fresh milk	=	=	=	+	-	=	=	=
Option 3 -CET to 35% for fat filled milk powder and 10% for whole milk powder + scrapping VAT on processed dairy products made from fresh milk	+	+	=	+	+	-	+	+
Option 4 - A ban on imports of fat filled milk powder	+	+	+	+	+	-	+	+
Option 5 - Making the import and use of imported powders conditional upon the use of 20% local milk	+	=	=	+	=	-	+	+
Option 6 - A ban on imports of fat filled milk powder + CET to 10% for whole milk powder + scrapping VAT on processed dairy products made from fresh milk	+	+	+	+	-	-	+	+

= : effect between -3% and +3%

+ : Postive effect between +4% and +13%

- :negative effect between-4% and -13%

+ : Positive effect higher than +13%

Table 14: Detailed quantitative effects of implementing the different options (1/2)

	Milk prices paid by processors	Income of producers	Average consumer prices including VAT					Annual cost of dairy products for consumers		Price (incl. VAT) of repackaged FFMP for consumers in the event of a price spike (example: world price in 2022: 13,000€/t for FFMP powder and 14,500€/t for WMP).	
			Processed products made from local milk	Processed products made from whole milk powder	Processed products made from fat filled milk powder	Recondition whole milk powder (WMP)	Reconditioned fat filled milk powder (FFMP)	In value (*)	In %	In value	In %
Reference situation :	450 FCFA/l	290 FCFA/l	1200 (1100- FCFA/l)	1250 (1100- FCFA/l)	1100 (900-1400) FCFA/l)	720 FCFA/l)	600 FCFA/l)	26.855 FCFA/per/yr	-	765 FCFA/per/yr	-
Evolutions with regard to the reference situation											
Option 1 - CET to 35% for fat filled milk powder and 10% for whole milk powder + temporary mechanisms for protection of consumers and the sector	7%	10%	3%	2%	8%	3%	14%	1.790	7%	743	-3%
Option 2 - Scrapping VAT on processed dairy products made from fresh milk	3%	4%	from -8% to +3%	0%	0%	0%	0%	51	0%	765	0%
Option 3 -CET to 35% for fat filled milk powder and 10% for whole milk powder + scrapping VAT on processed dairy products made from fresh milk	18%	29%	from -5% to +8%	2%	8%	3%	16%	2.561	10%	743	-3%
Option 4 - A ban on imports of fat filled milk powder	8%	12%	3%	0%	19% (fat filled power replaced by WMP)	0%	20% (fat filled power replaced by WMP)	1.819	7%	854 (fat filled power replaced by WMP)	12%
Option 5 - Making the import and use of imported powders conditional upon the use of 20% local milk	10%	16%	4%	2% (with inclusion of 20% local milk)	4% (with inclusion of 20% local milk)	0%	0%	831	3%	765	0%
Option 6 - ban on imports fat filled powder + CET to 10% on whole milk powder + scrapping VAT on products made from fresh milk	21%	33%	from -4% to +9%	2%	20% (fat filled power replaced by WMP)	3%	23% (fat filled power replaced by WMP)	2.640	10%	854 (fat filled power replaced by WMP)	12%

(*) Including value from autoconsumption

Table 15: Detailed quantitative effects of implementing the different options (2/2)

	Added value for the dairy sector as a whole and for the concerned sectors		Tax revenue (Customs + VAT)		Imports of powders		Total milk production (cow's milk)		Self-sufficiency rate	Processed milk production in the formal sector	
	In value	In %	In value	In %	In volume	In %	In volume	In %	In %	In volume	In %
Reference situation :	2293 billion FCFA	-	586 billion FCFA	-	6260 million eq l.	-	2900 million l.	-	41%	232 million l.	-
Evolutions with regard to the reference situation											
Option 1 - CET to 35% for fat filled milk powder and 10% for whole milk powder + temporary mechanisms for protection of consumers and the sector	210	9%	117	20%	- 254	-4%	190	7%	43%	486	209%
Option 2 - Scrapping VAT on processed dairy products made from fresh milk	132	6%	- 35	-6%	- 100	-2%	75	3%	42%	332	143%
Option 3 -CET to 35% for fat filled milk powder and 10% for whole milk powder + scrapping VAT on processed dairy products made from fresh milk	317	14%	28	5%	- 707	-11%	531	18%	46%	939	405%
Option 4 - A ban on imports of fat filled milk powder	268	12%	26	4%	- 304	-5%	228	8%	43%	536	231%
Option 5 - Making the import and use of imported powders conditional upon the use of 20% local milk	380	17%	- 0	0%	- 401	-6%	300	10%	44%	633	273%
Option 6 - ban on imports fat filled powder + CET to 10% son whole milk powder + scrapping VAT on products made from fresh milk	399	17%	- 30	-5%	- 808	-13%	606	21%	47%	1.040	448%

Under average global price conditions, all the options would have the following results, to varying degrees, over a five-year horizon:

- An increase in the prices paid to livestock farmers and therefore in their income,
- An increase in consumer prices, but with contrasting situations depending on the options selected. In the event of a sharp rise in global prices, the effects are also very mixed.
- An increase in added value and employment throughout the dairy sector and the relevant processing sectors,
- A fall in the volume and total cost of powder imports,
- An increase in milk production,
- An improvement in the regional self-sufficiency rate,
- A very sharp increase in milk production processed in the formal sector.

By contrast, in terms of the impact on tax revenues, the situation differs depending on which option is chosen.

We present a more detailed analysis of the results below.

a) The price paid to livestock farmers and their income

In the model used, changes in the price paid to producers depend on the increase in demand for local milk (production elasticity of price) and therefore on the volume effects of the options being studied. Those options with the greatest volume effects in favour of local milk therefore lead to the largest increases in the price paid to livestock farmers and their income, namely Option 3, which combines an increase in the CET with the scrapping of VAT on products made from fresh milk (18% increase in price and 29% increase in income), and, to an even greater extent, Option 6, which also adds a ban on imports of fat filled milk powder (21% increase in price and 33% increase in income). Option 5 (use of powders by processors made conditional on the incorporation of 20% local milk) would also have a significant effect (10% increase in price and 16% increase in income).

b) Consumer prices

Prices paid by consumers result from the combined effects of the increase in the CET (price increase effect), the scrapping of VAT on fresh milk products (price reduction effect) and the increase in demand for local milk (which increases its price). The effects differ according to the structure of dairy product consumption (see Table 14). Under average global price conditions, the effects on consumer prices are relatively slight (from -5% to +9% depending on the type of product and the option selected), except in two cases:

- Options that include a ban on imports of fat filled milk powder (Options 4 and 6). This is because whole milk powder is partly substituted for it, resulting in an increase of +19% to +23% in the consumer price of processed products and powder.
- The price of repackaged fat filled milk powder in scenarios involving an increase in the CET to 35% (Options 1 and 3, +14% to +16%)

Under Options 2, 3 and 6, the price of products made from powders and of repackaged powders increases (increase in the CET), while the price of products made from local milk decreases (scrapping of VAT).

The increase in consumer prices is accompanied by a slight fall in overall consumption (price elasticity of demand), of up to -2% in Options 3 and 6.

Based on the structure of consumption of milk and dairy products and derivatives in the West African region (see Appendix 4), we simulated the average annual effect of the different options for consumers. Average annual spending on dairy products and derivatives is currently FCFA 27,000 per capita. The options with the largest impacts on average consumer prices are Options 3 and 6, with a 10% increase

in annual spending, i.e. FCFA 2,700 per year, or FCFA 225 per month, or FCFA 8 per day. The impact would, of course, be greater in countries where the consumption of dairy products and derivatives is higher, and where it consists mainly of fat filled milk powder and products derived from it. Nevertheless, these figures clearly show that the negative effects of the various options on consumers should be seen in perspective, especially as the population would benefit from the creation of new jobs and the distribution of new income and, in the longer term, the region's food self-sufficiency and therefore the population's food security would be improved. It is also important to bear in mind that the assumptions predict an increase in the price of local milk due to a rise in demand, without taking account of price reductions due to productivity gains. As we have already mentioned, it is nevertheless likely that strong growth in milk production would enable such productivity gains to be achieved in the medium term.

Furthermore, in situations where global prices rise sharply (which, as in 2022, are the situations most likely to jeopardise purchasing power and food security for poor consumers, particularly in urban areas), the CET flexibility mechanism would make it possible to cancel out the consequences of the increase in the CET, and even to slightly reduce the price of dairy products in comparison with the current situation. Thus, based on average global prices in 2022 (€3,000/t for fat filled milk powder and €4,500/t for whole milk powder, i.e. +50% and +40% respectively compared with an average year), and considering the product most affected by the increase in the CET at consumer level, i.e. repackaged fat filled milk powder, the results would be as follows:

- Consumer prices (including VAT) would fall by 3% compared with the current situation in Options 1 and 3, which include a flexibility mechanism alongside the increase in the CET. Specifically, this would result from the temporary suspension of the CET (to safeguard food security) that would take place in a year similar to 2022. These options would therefore make it possible to combine greater protection for the local milk sector with greater protection for consumers in the event of a surge in global prices.
- In Options 4 and 6, the consumer price (including VAT) would rise compared with the current situation, as these are options where fat filled milk powder (imports of which are banned) would be replaced by more expensive whole milk powder. However, the increase in consumer prices compared with the current situation would only be +12% despite this substitution, compared with +20% to +23% in under average global price conditions, thanks to the triggering of the safeguard mechanism (suspension of the CET).

The moderate average impact of price rises generated by certain options on West African consumers in a year with average global prices, as well as the protective effect of the CET flexibility mechanism in the event of a surge in global prices, puts the question of the 'food price dilemma', i.e. the difficult trade-off between producer and consumer prices, into perspective⁴⁵.

c) Added value and employment throughout the dairy sector and the relevant processing sectors

The added value generated by the dairy sector and the relevant processing sectors (including the processing and repackaging of fat filled milk powder) is estimated at CFAF 2,293 billion for the whole of West Africa. The margin of error in this value is high, as the added value of livestock farms had to be estimated on the basis of little data. However, all the options would result in an increase in added value (from +16% to +18%), and consequently in jobs, bearing in mind that there is a strong correlation between added value and jobs. Options 6, 5 and 3 would deliver the highest rates of growth in added value (+18%, +17% and +12% respectively).

d) Tax revenue

The effect of the different options on tax revenue varies. Levies on powder imports and VAT on dairy products and derivatives amount to an estimated CFAF 586 billion in the reference scenario. Option 1

⁴⁵ See Coste Jérôme, Egg Johny, 2021.

would increase revenue the most (+20%). In the other scenarios, the positive effects (increase in the CET) and negative effects (scrapping of VAT on fresh milk products, reduction in customs levies resulting from the reduction in the volume of imported powders) would offset each other overall, with a relatively small net effect (between -6% and +5%, depending on the option under consideration).

e) Imports of powders

Based on a constant population, the various options would result in a reduction in powder imports compared with the current situation (6,260 million litres milk eq.). The drop would be largest in Options 6 and 3 (-13% and -11% respectively). However, as we have already mentioned, it must be remembered that the assumptions made regarding volume effects are conservative and that the effects could ultimately be greater.

f) Milk production

Total milk production (cow's milk) would increase on the basis of the various options, due to imported powders being replaced by local milk at processor level. This substitution would be driven by changes in the relative competitiveness of the various types of raw material, but also by increased consumer demand for local milk products as a result of gains in the relative competitiveness of these products compared with equivalent products made from imported powders. The options leading to the highest growth are Options 6 and 3 (+21% and +18% respectively).

g) The self-sufficiency rate

The fall in powder imports and the increase in milk production would result in a significant rise in the self-sufficiency rate (the percentage of consumption covered by regional production). The self-sufficiency rate (all types of milk combined) is currently 41%, and would increase the most with Options 6 and 3 (self-sufficiency rates of 47% and 46% respectively). These self-sufficiency rates may appear low, but it should be borne in mind that, as we have mentioned, the assumptions regarding the volume effects of the various options are relatively conservative and that, furthermore, the self-sufficiency rate is currently in a downward trend. In reality, an increase in the self-sufficiency rate of around 5% in five years would mean a complete reversal of the current trend (a 20% drop in the self-sufficiency rate in twenty years).

h) Milk production processed in the formal sector

The proportion of milk production processed in the formal sector is currently relatively small: 232 million litres, or 8% of cow's milk production and 5% of total milk production. The various options would result in a considerable increase in volumes processed, particularly in Options 6 and 3, where there would be at least a five-fold increase. In Options 1, 4 and 5, the increase would be between 200% and 300%. These figures underline the fact that the use of tax and trade policies to improve the economic environment would not be successful without significant investment in milk collection and processing.

4) CONDITIONS FOR THE IMPLEMENTATION AND SUCCESS OF THE VARIOUS OPTIONS

a) Conditions for implementation

A number of conditions must be met before the various options can be implemented.

Increasing the CET and introduction of flexibility (Options 1, 3 and 6) requires a collective decision by all the countries in the region. While for the majority of countries such a decision is compatible with their WTO commitments, for others this is not the case (see Section IV, Sub-section 1). However, the region's countries could, however, present the argument to the WTO that, in overall regional terms and taking into account the relative weight of each country's powder imports, an increase in the CET would remain well below the regional commitment ceiling calculated in this way (in particular, the bound tariff for Nigeria

alone is 150% for both whole milk powder and fat filled milk powder). With regard to making the CET more flexible for reasons of consumer food security and protection of the local dairy sector, the countries of the region would have strong grounds for defending such measures at the WTO, given the economic, social, environmental and security situation and the challenges that the region faces (particularly in rural areas). In this economic, social, environmental, geopolitical and security context, and with these arguments being put forward by the West African countries, it is unlikely that another WTO member that is a major exporter of powders, and in particular the European Union, would venture to bring a case against all the African states before the Dispute Settlement Body (DSB) of the multilateral organisation. Increasing the CET would pose a specific problem for Côte d'Ivoire and Ghana, which have signed EPAs with the European Union in which they undertake to completely liberalise trade in milk powders and fat filled milk powders. This specific provision would need to be renegotiated in order to classify all dairy products and derivatives as sensitive products. Here too, the European Union would have to face up to its responsibilities and its own commitments to maintain policies that are consistent with development.

Decisions relating to VAT (Options 2, 3 and 6) are a national matter. However, in order to fit in with the common VAT harmonisation framework, they could involve a prior decision by ECOWAS to classify all dairy products made from fresh milk as basic necessities (and therefore exempt from VAT). In countries where VAT on dairy products (or on some dairy products) has been scrapped, the envisaged tax measures are not possible. They could be replaced by the reinstatement of VAT on powders and products made from them, or by tax exemptions for processors (income tax and any other taxes) in proportion to their turnover from products made from 100% fresh milk. The issue of compatibility with WTO commitments again arises, as VAT has to be applied uniformly to the same type of product regardless of its origin or the origin of the raw material. Otherwise, this may be regarded as an indirect trade protection measure. That is why the measure should be applied not on the basis of origin but on the basis of the nature of the product. The scrapping of VAT should therefore apply to products made from fresh milk. Again, for the reasons already mentioned, it is unlikely that any other WTO member that is a major exporter of powders would venture to bring a case against all the African states before the Dispute Settlement Body (DSB) by alleging that this is a disguised trade protection measure.

As regards **banning imports of fat filled milk powders** (Options 4 and 6), given the existence of a single market, this would require a collective decision by the member states at regional level and sufficient import controls to prevent importers from circumventing the measure. Moreover, this is a non-tariff measure that is contrary to the commitments made by the states to the WTO, so a strong political will would be needed to defend it. Here too, countries exporting fat filled milk powder would have to face up to their responsibilities and commitments.

A similar problem arises in regard to making **powder imports conditional on the use of local milk** by processors (Option 5). This measure also raises questions of technical feasibility, as powder imports are also intended for repackaging, and are not only carried out by processors, but also by specialist importers. The measure would only be possible if accompanied by a system for tracing imports to processors or other users, with sufficient control mechanisms to deal with the possibility of abuses.

Generally speaking, a **clear message from the European Union** in support of West Africa's desire to implement trade and tax policies that benefit local milk, and taking full account of this in discussions on trade agreements, would help to create an environment in which ambitious decisions could be made by the countries in the region.

b) Conditions for success

Whichever option is considered, one essential condition for success is the **region's capacity to increase milk production**, and to an even greater extent its **collection and processing capacity**. Increasing production during the dry season is a particular challenge in certain regions where production is highly seasonal. The use of trade and tax policy measures can therefore be a powerful way of encouraging this growth, but unless the other constraints are remedied, these measures would have negative impacts overall, specifically on consumer purchasing power.

Furthermore, the policy of developing the local milk sector could be successful, but there may be negative effects for certain actors who should in fact be supported. Thus, as mentioned by various economic actors, the increase in demand for local milk from industrial companies could cause difficulties for **small-scale and semi-industrial businesses**, as they will face increased competition for milk collection. To ensure that the new policy does not undermine these businesses, concerted policies will have to be implemented at regional and local level. Again, if the increase in demand for milk were beneficial only for industrial farms and not for all agro-pastoral and pastoral areas, the objectives in terms of the **economic and social development of rural regions** would not be achieved. Here too, investment and support from the state and other actors should be coordinated to ensure that the revitalisation of the local milk sector actually benefits these regions and their population.

Finally, increased demand for milk from processors and higher milk prices could also have a negative impact on the place of **women** in the agricultural economy and their autonomy. Women are often responsible for production, processing and marketing of milk in local areas or on markets, but women being sidelined is a well-known phenomenon that is commonly seen, whether in production or in processing. When a sector becomes more structured or technical innovations facilitate processing operations, women are sometimes forced out. With regard to milk production and collection in West Africa, there are known examples in which opportunities to market production more effectively to processors, responsibility for collection or, at farm level, the management of milk sales, have been taken out of women's control, and they have lost financial resources and autonomy as a result⁴⁶.

Alongside the policy of **boosting the local milk sector**, and with the aim of reinforcing it, measures should be taken to promote local milk among consumers, and to **comply with** (and if necessary reinforce) **the regulations on product packaging and advertising**, to combat consumer misinformation, which is very common in sales outlets in the region. More could be done to supply schools and other public establishments with local milk, along the lines of actions already being taken in various countries in the region.

Increased support from **international cooperation**, and in particular from **the European Union**, for all aspects of the *Regional Offensive for the Promotion of Local Milk Value Chains* would contribute to its success and safeguard the benefits resulting from the new environment generated by changes in trade and tax policies.

The success of trade policy depends on the existence of **complementary measures** to avoid a shift either to imported manufactured products ready for sale or to lower quality, cheaper products. This explains the importance of also applying a 35% tariff to other dairy products, as envisaged in the *Regional Offensive for Local Milk* (which states that this rate applies to all dairy products): processed products (which, with the exception of yoghurt, are currently subject to a 20% tariff) and skimmed milk powder. This measure should be extended to all plant-based food preparations (particularly soya) that could replace dairy products.

As far as the **speed of implementation** is concerned, some measures should be implemented immediately in order to bring about significant change in the economic environment and encourage a real shift in actors' behaviour. These include the measures relating to the CET and the scrapping of VAT on fresh milk products. As regards the ban on fat filled milk powder, it is preferable to introduce this after a period during which tariffs of 35% have been applied, so that it is introduced in a context where the actors have already made decisions on substitution. Furthermore, given that this measure would result in fat filled milk powder being replaced by more expensive whole milk powder (and probably partly by skimmed milk powder), it is preferable to introduce such a measure in a context of relatively low global prices in order to mitigate the impact on consumers. A measure making the use of imported powder conditional on the use of 20% local milk by processors could only be introduced gradually (in stages over five years, for example), to give processors and collectors time to make the necessary investments and to give farmers time to develop production.

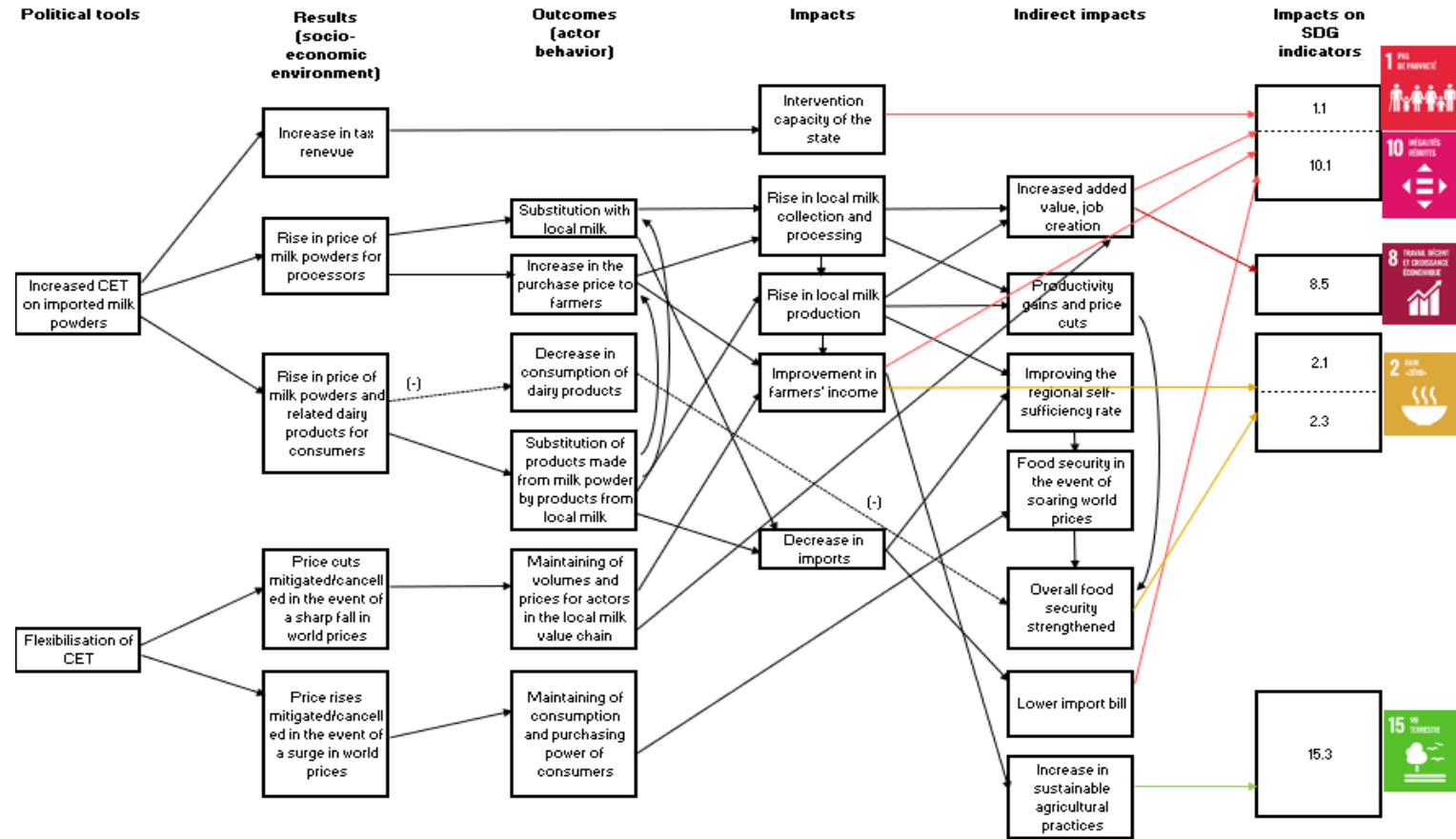
⁴⁶ See in particular de Dianous Gabrielle, 2020, de Schneider Mariama, 2012.

5) IMPACT PATHWAYS FOR THE VARIOUS MEASURES

Figures 15, 16, 17 and 18 show the impact pathways for the various measures included in the different options and the links with the SDGs:

- Increasing the CET on imported powders and making it more flexible (Options 1, 3 and 6),
- Scrapping VAT on fresh milk products (Options 2, 3 and 6),
- A ban on the import of fat filled milk powders (Options 4 and 6),
- Making powder imports conditional on the use by processors of local milk (Option 5).

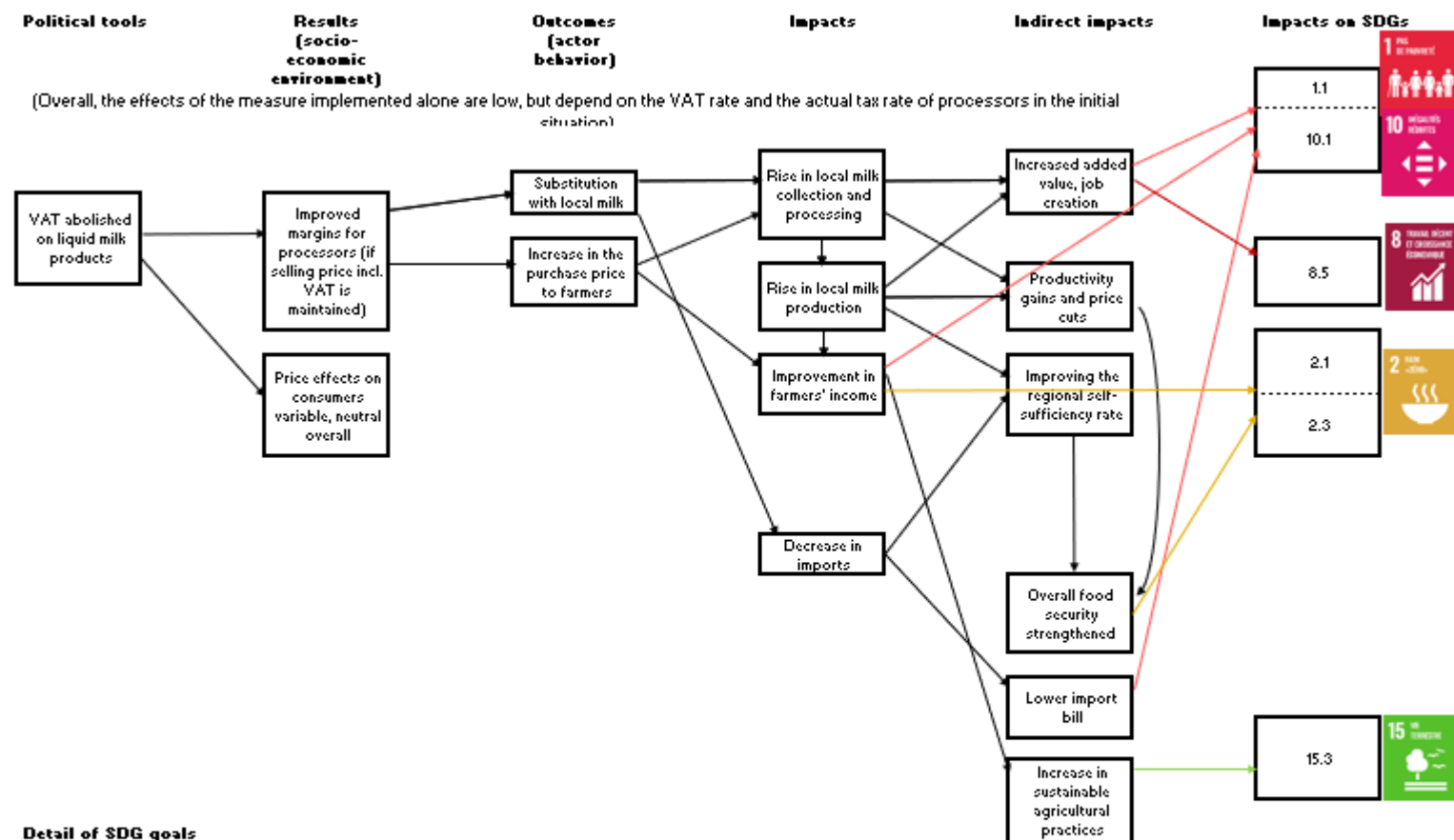
Figure 15 - Impact pathways for increasing the CET on imported powders and making CET flexible, links to SDGs



Detail of SDG goals

- 1.1 By 2030, eradicate extreme poverty for all people everywhere, currently measured as people living on less than \$1.90 a day
- 2.1 By 2030, end hunger and ensure access by all people, in particular the poor and people in vulnerable situations, including infants, to safe, nutritious and sufficient food all year round
- 2.3 By 2030, double the agricultural productivity and incomes of small-scale food producers, in particular women, indigenous peoples, family farmers, pastoralists and fishers, including through secure and equal access to land, other productive resources and inputs, knowledge, financial services, markets and opportunities for value addition and non-farm employment
- 8.5 By 2030, achieve full and productive employment and decent work for all women and men, including for young people and persons with disabilities, and equal pay for work of equal value
- 10.1 By 2030, progressively achieve and sustain income growth of the bottom 40 per cent of the population at a rate higher than the national average
- 15.3 By 2030, combat desertification, restore degraded land and soil, including land affected by desertification, drought and floods, and strive to achieve a land degradation-neutral world

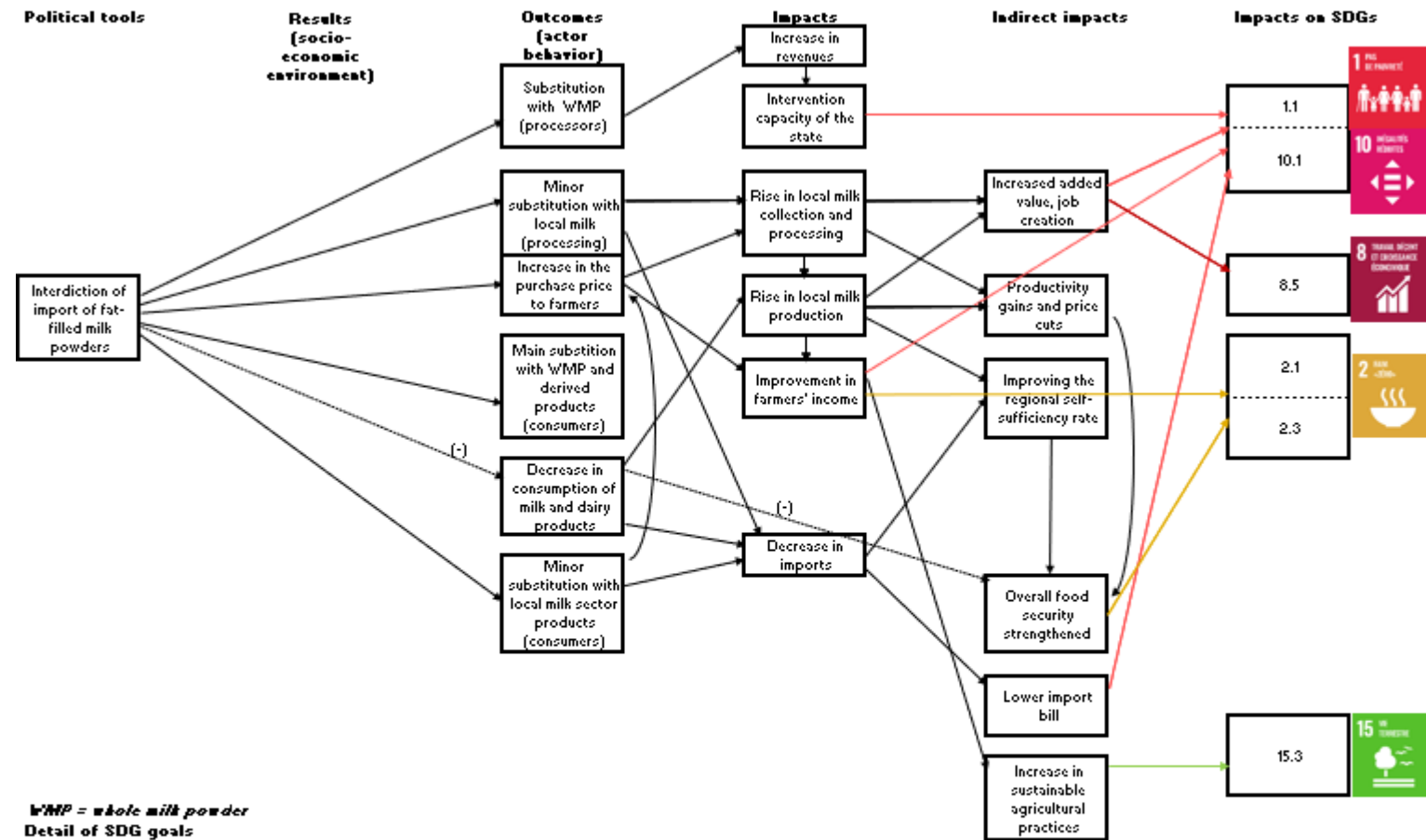
Figure 16 - Impact pathways for scrapping VAT on fresh milk products, links to SDGs



Detail of SDG goals

- 1.1 By 2030, eradicate extreme poverty for all people everywhere, currently measured as people living on less than \$1.90 a day
- 2.1 By 2030, end hunger and ensure access by all people, in particular the poor and people in vulnerable situations, including infants, to safe, nutritious and sufficient food all year round
- 2.3 By 2030, double the agricultural productivity and incomes of small-scale food producers, in particular women, indigenous peoples, family farmers, pastoralists and fishers, including through secure and equal access to land, other productive resources and inputs, knowledge, financial services, markets and opportunities for value addition and non-farm employment
- 8.5 By 2030, achieve full and productive employment and decent work for all women and men, including for young people and persons with disabilities, and equal pay for work of equal value
- 10.1 By 2030, progressively achieve and sustain income growth of the bottom 40 per cent of the population at a rate higher than the national average
- 15.3 By 2030, combat desertification, restore degraded land and soil, including land affected by desertification, drought and floods, and strive to achieve a land degradation-neutral world

Figure 17 - Impact pathways for the ban on the import of fat filled milk powders, links to SDGs



WMP = whole milk powder

Detail of SDG goals

1.1 By 2030, eradicate extreme poverty for all people everywhere, currently measured as people living on less than \$1.90 a day

2.1 By 2030, end hunger and ensure access by all people, in particular the poor and people in vulnerable situations, including infants, to safe, nutritious and sufficient food all year round

2.3 By 2030, double the agricultural productivity and incomes of small-scale food producers, in particular women, indigenous peoples, family farmers, pastoralists and fishers, including through secure and equal access to land, other productive resources and inputs, knowledge, financial services, markets and opportunities for value addition and non-farm employment

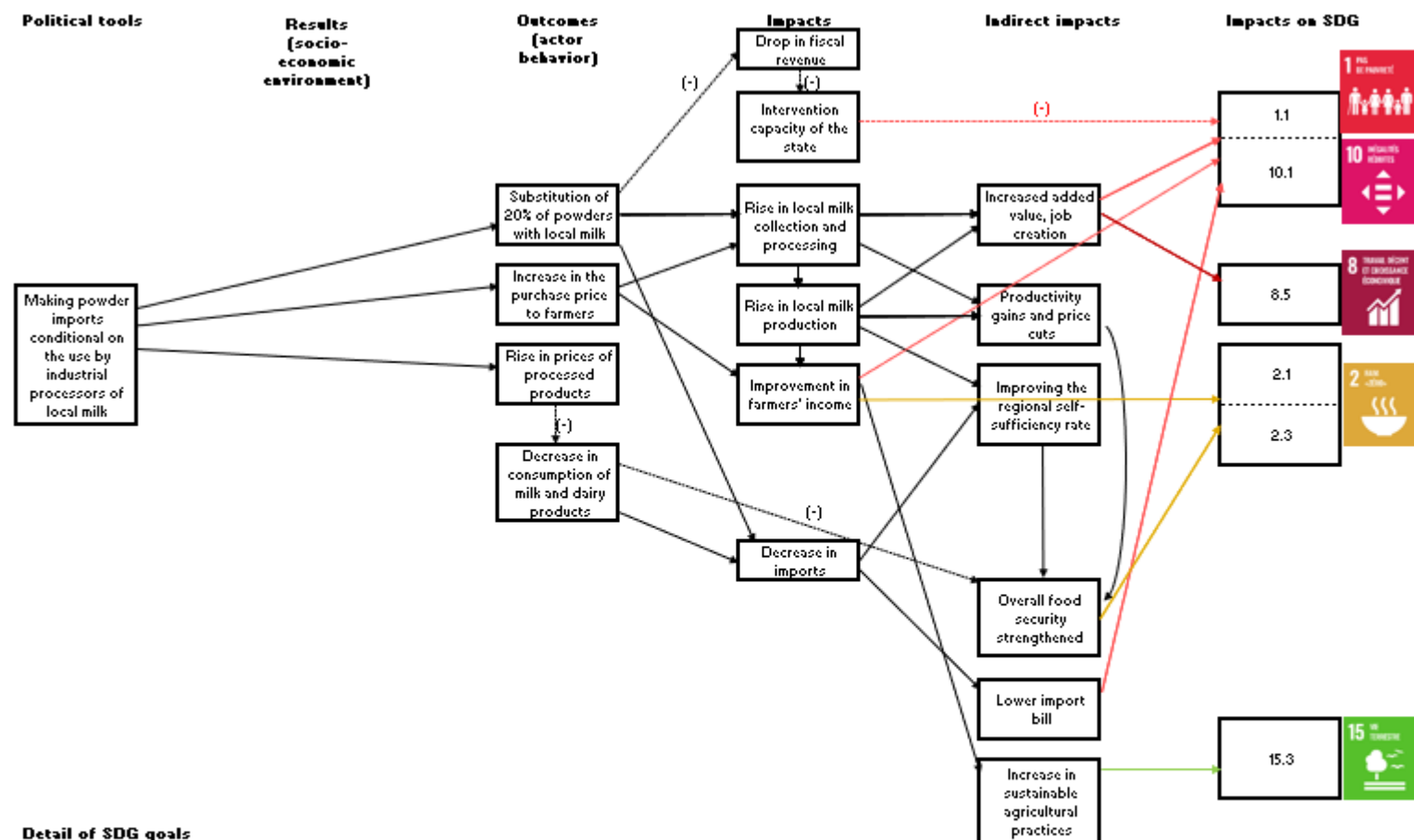
8.5 By 2030, achieve full and productive employment and decent work for all women and men, including for young people and persons with disabilities, and equal pay for work of equal value

10.1 By 2030, progressively achieve and sustain income growth of the bottom 40 per cent of the population at a rate higher than the national average

15.3 By 2030, combat desertification, restore degraded

land and soil, including land affected by desertification, drought and floods, and strive to achieve a land degradation-neutral world

Figure 18 - Impact pathways for making the use of powders conditional on the use of local milk by processors, links to SDGs



Detail of SDG goals

- 1.1 By 2030, eradicate extreme poverty for all people everywhere, currently measured as people living on less than \$1.90 a day
- 2.1 By 2030, end hunger and ensure access by all people, in particular the poor and people in vulnerable situations, including infants, to safe, nutritious and sufficient food all year round
- 2.3 By 2030, double the agricultural productivity and incomes of small-scale food producers, in particular women, indigenous peoples, family farmers, pastoralists and fishers, including through secure and equal access to land, other productive resources and inputs, knowledge, financial services, markets and opportunities for value addition and non-farm employment
- 8.5 By 2030, achieve full and productive employment and decent work for all women and men, including for young people and persons with disabilities, and equal pay for work of equal value
- 10.1 By 2030, progressively achieve and sustain income growth of the bottom 40 per cent of the population at a rate higher than the national average
- 15.3 By 2030, combat desertification, restore degraded land and soil, including land affected by desertification, drought and floods, and strive to achieve a land degradation-neutral world

VIII. CONCLUSIONS AND RECOMMENDATIONS

1) CONCLUSIONS

The rise of the local dairy sector in West Africa is potentially very important in terms of jobs, income, the fight against poverty, and the socio-economic development of pastoral and agro-pastoral areas. Given that these areas have the lowest income levels and the highest levels of poverty and malnutrition and given the current context of increasing conflict and destabilisation in the region, these areas should be prioritised by public policy. Developing the local dairy sector is also essential to ensure food and nutritional independence and security for the population with balanced trade and foreign currency flows. Although milk production has risen steadily over the last twenty years, the rate of growth is insufficient to meet the increase in demand, so that the region's dependence on imports is growing year on year. The region's milk self-sufficiency rate, which was 60% at the turn of the century, is now just 41%. If consumption and production continue to grow at the current pace, this rate will fall to only a third in two decades' time.

Imports come mainly from the European Union and consist mainly of fat filled milk powders – a blend of skimmed milk powder and vegetable fat (usually palm oil) which costs 30% less than whole milk powder. West African consumption of dairy products and derivatives (i.e. derived from fat filled milk powders) consists mainly of fresh liquid milk (mainly in rural areas), yoghurts (sometimes mixed with cereals) and curdled milk and imported powders (often repackaged locally). Other products are also consumed, such as pasteurised milk and cheese. These products are therefore partly manufactured locally and partly imported. Processors (ranging from multinationals to small-scale or individual units) have the option of sourcing either imported powders or local milk. The global market is characterised by the presence of a few major exporters (the European Union, the United States and New Zealand) who sell their surpluses on it (10% of global production) and also by high price volatility.

While imports of dairy products and derivatives help to offset the region's shortfall in milk production, which is subject to a number of constraints, these imports also have the effect of limiting the growth of the local dairy sector. Local dairy sector actors and civil society organisations have therefore begun working together in the *Mon Lait est local (My Milk is Local)* campaign, and subsequently on the *Regional Platform for the Promotion of Local Milk* and in the ECOWAS states, to agree on the definition of a *Regional Offensive for the Promotion of Local Milk Value Chains in West Africa*. In this context, this study, commissioned by Oxfam, focused more specifically on trade and tax policies that are likely to support the development of the local milk sector, given that, because of their price, permanent availability and ease of use, imported powders compete with local milk in terms of processing and consumption, exacerbating the difficulties facing the local dairy sector. Trade and tax policies are tools for regulating this competition. In the longer term, against a backdrop of strong demographic growth and changing dietary habits, competition from imported milk powders and, to an even greater extent, from imported fat filled milk powder is tending to increase the region's food dependency. For this region, food dependency means not only considerable import costs in foreign currencies, but also greater vulnerability for consumers in the event of global price rises, particularly for the poorest urban consumers, as the price surges of 2007-2008 and 2022 showed.

Competition from imported powders is heightened by the low level of protection on the West African market, with a customs duty (Common External Tariff – CET) on bulk powders of just 5%. This low tariff level, which is intended to reduce consumer prices and encourage the development of imported powder processing industries, is a major factor hampering the development of the local dairy sector. The strategy document of the *Regional Offensive for the Promotion of Local Milk Value Chains* refers in this context to 'lax trade policies'.

European actors in the dairy industry are major exporters of milk powders and fat filled milk powders to West Africa. Major corporate groups tend to set up subsidiaries in West Africa to process or repackage imported powders and, in some cases they develop local milk supply networks. European policies have encouraged dumping – which not recognised by the European authorities – on West African markets through CAP subsidies and the absence of market regulation mechanisms since the disappearance of

milk quotas in 2015. In addition, the European Union supports the establishment of European companies in West Africa and does not discourage imports of palm oil intended for re-use by European manufacturers. Lastly, it has negotiated Economic Partnership Agreements (EPAs) with West African countries that provide for the complete liberalisation of the region's market for imported powders intended for processing or repackaging.

In the future, the development of European exports of dairy products and derivatives to West Africa will depend on the growth of consumption in the region, the capacity of regional production to cover additional consumption needs, and the development of production and surpluses in the major exporting countries.

Trade and tax policies are influenced by the political and legal framework at both regional and national levels. In particular, the countries in the region have made commitments within the framework of the World Trade Organisation (WTO) and, in the case of Côte d'Ivoire and Ghana, with the European Union under two Economic Partnership Agreements (EPAs). The ECOWAS member states have a common trade policy, specifically including a CET that applies to a variety of products. Tax policies are a matter for the individual country, but there is some harmonisation within WAEMU and ECOWAS. Some countries implement specific trade or tax policy measures, such as Nigeria, which makes the granting of import licences for milk powders conditional on a commitment from processors to invest in the local milk supply, or Senegal, which has scrapped VAT on pasteurised milk made from fresh milk. In 2018, ECOWAS began a process of defining the *Regional Offensive for the Promotion of Local Milk Value Chains in West Africa*, issuing a regional strategy and a regional priority investment plan (PIP) which were approved by the member states in 2020. The individual countries also undertook to draw up national PIPs. The regional strategy explicitly provides for an increase in the CET and the modification of tax policy.

However, there are differing positions on this issue in West Africa. Although the countries in the region have validated the regional strategy, no concrete decisions have been taken yet. The CET review process in 2024 could be an opportunity to put these guidelines into practice. In the meantime, the country studies carried out in Nigeria, Burkina Faso and Senegal confirm that the actors in the local dairy sector are generally in favour of ambitious trade and tax policy measures, that the large companies (especially multinationals) involved in processing imported powders are generally opposed to them and that the public authorities are interested in the proposals. However, those authorities do express doubts and fears about the effectiveness of such policies, given the uncertainty as to whether the local dairy sector is capable of developing sufficiently to replace the imported powders. They also question its political feasibility (decisions needing to be taken at regional level, WTO commitments) and technical feasibility (the risk of fraud), as well as the possible negative effects for consumers.

At the European level, some actors in the dairy sector are wondering about their social and environmental responsibility (SER) with regard to these exports to West Africa. This is true in particular of the French national interprofessional centre for the dairy economy (CNIEL), which has stated its ambition to develop 'responsible' exports. The aim of this is to encourage French dairy firms to commit to favouring exports of high added value products and to participate in the development of local milk supplies. However, European actors in the dairy sector who raise the question of social and environmental responsibility (SER) in the dairy sector mainly focus on the issue of the environment. The issue of the responsibility of exporting countries is sometimes raised, but this is from the point of view of the commitment of European subsidiaries to developing local milk supplies alongside the processing of imported powders. European dairy industries are not very concerned about the impact of their exports (and in particular fat filled milk powders), and in some cases take the view that they play a positive role in terms of food security. Meanwhile they continue their aggressive exports of cheap milk powders.

Since the early 2010s, a number of farmers' organisations have joined forces with NGOs, and the platform *N'exportons pas nos problèmes (Let's not export our problems)* has been set up in direct collaboration with West African farmers' organisations and the actors in the *Mon lait est local (My milk is local)* campaign. At European Commission level, different positions have been adopted by different Directorates-General. Within DG INTPA, the problem of European milk imports and derivatives competing with local

milk is recognised, but it is emphasised that West African countries have not yet submitted any requests to the European Union, either for dairy products to be treated as sensitive products in the context of EPAs or to provide support for the Regional Offensive for Local Milk. DG Agriculture and DG Trade take the view that European imports contribute to food security overall and do not constitute dumping, as CAP subsidies are classified in the WTO's green box of non-distorting subsidies. In response to campaigns by the civil society, the EU has recognised the problem of the lack of transparency surrounding fat filled milk powders and created a specific tariff line to identify them. Within the European Parliament, a number of MEPs have taken action on these issues, particularly within the Green group.

The study simulated the effects of six options for changes in trade and tax policies, based on:

- raising the CET on powders (35% for fat filled milk powder and 10% for whole milk powder, compared with 5% today) and making CET flexible depending on global market prices, to protect consumers in the event of a surge in global prices and also to protect local actors in the milk sector in the event of a sharp fall in prices (Option 1),
- the abolition of VAT on fresh milk products (Option 2),
- a combination of the measures in Options 1 and 2 (Option 3),
- a ban on the import of fat filled milk powders (Option 4),
- making the import and use of powders by processors subject to a commitment to incorporate 20% local milk in their products (Option 5),
- a combination of the measures in Options 3 and 4 (Option 6).

The simulations carried out were based on the prior development of simplified models of the commodity chain (sixteen commodity chain models according to the type of end product, the type of raw material and whether or not processors are registered for VAT) and assumptions regarding the price and volume effects of the various options considered, based on relatively conservative assumptions for the volume effects. While the assumptions inevitably include margins of error, the simulations clearly reveal certain trends in different parameters depending on which option is chosen.

Generally speaking, in a situation of average prices, all the options would make the following possible, in varying proportions, over a five-year horizon:

- An increase in the prices paid to livestock farmers and therefore in their incomes: as a result of the increased competitiveness of local milk products at consumer level (all options), the higher cost of imported powders compared to local milk (based on the options of raising the CET and banning fat filled milk powders) and an obligation to use local milk (Option 5), there is more demand for local milk, leading to higher prices being paid to farmers and increasing their incomes.
- A rise in consumer prices, but with contrasting situations depending on the options chosen and the product concerned (a higher rise for repackaged fat filled milk powder). However, the question of the 'food price dilemma'⁴⁷ needs to be seen in perspective. This is for two reasons:
 - o first, the price rises are relatively modest, and the average annual cost per consumer increases by no more than FCFA 2,700 (Options 3 and 6);
 - o second, in a situation where global prices, rather than remaining at an average level, rise sharply (as happened in 2022, for example), Options 1 and 3 (increasing the CET and making it flexible) ensure that the price of imported powders for consumers remain stable or even fall slightly, compared with the current situation, thanks to the flexible CET mechanism.

⁴⁷ See Coste Jérôme, Egg Johnny, 2021.

- An increase in added value and employment throughout the dairy sector and the relevant processing sectors, More added value is generated by the local dairy sector than by the import sector. The increase in added value affects rural areas most, because, although the imported powder processing plants (and therefore the added value, jobs and income associated with them) are concentrated mainly in towns and cities, a large proportion of the activities in the local milk sector is located in rural areas.
- A fall in the volume and cost of imports of powder.
- An increase in milk production.
- An increase in regional self-sufficiency in dairy products and derivatives.
- A very sharp increase in milk production processed in the formal sector.

The situation as regards impacts on tax revenues will differ depending on which option is considered. Overall, the effects tend to be relatively slight because the additional revenue (increase in the CET, replacement of imported fat filled milk powder with more expensive whole milk powder, which therefore generates more customs revenue in Options 4 and 6) is offset by revenue losses (the scrapping of VAT on fresh milk products, while substitution of local milk for imported powders leads to a drop in customs revenue).

Generally speaking, the effects on the development of the local dairy sector and its various positive consequences tend to be more marked with Options 6 and 3, which respectively combine three (CET, VAT, fat filled milk powder ban) or two (CET, VAT) highly complementary measures. The regional self-sufficiency rate would rise to 47% and 46% respectively, compared with 41% today, reversing the historical downward trend. These are also the two options that result in the greatest increases in consumer prices for products made from imported powder, based on a situation of average global prices, but, as we have mentioned, this has a relatively limited average impact on purchasing power. Furthermore, with Option 3, the consumer price of products made from imported powder tend by contrast to fall slightly in a situation of surging global prices (i.e. when the threat to purchasing power and food security is greatest), thanks to the flexible CET system.

Options 4 (ban on fat filled milk powders) and 5 (mandatory incorporation of 20% local milk) also have significant effects. The regional self-sufficiency rate would reach 43-44%. With Option 5, consumer prices would change only marginally.

The effects of Option 1 (CET) are less significant, as the increase in the CET alone is insufficient to generate enough of an improvement in the relative competitiveness of local milk to bring about a significant change in actors' behaviour. Increasing the TEC would, however, lead to a significant increase in tax revenues. As in Option 3, consumer prices would fall slightly in the event of a surge in global prices.

Option 2 (VAT) has the weakest effects. This is because a large proportion of local milk products are processed and marketed by actors who are already not registered for VAT and would therefore have no interest in increasing the quantity of local milk in their mix. Moreover, VAT is absent or low in many of these countries and for certain products. However, in countries where the 18% VAT rate actually applies to all dairy products and where a significant proportion of actors are registered for VAT, the effect would be greater (for the purposes of this study the simulation was carried out solely on the basis of an average of the situation in the three countries studied, with numerous VAT exemptions). This option would be neutral for consumers overall.

The study also analysed the conditions for the implementation and success of the various options, the most important of which are set out in the recommendations section below.

2) RECOMMENDATIONS

Based on the results obtained, it appears that Options 3 (CET, VAT) and 6 (CET, VAT, ban on fat filled milk powder) are most likely to boost the development of the local dairy sector and reverse the historical trend towards increased dependence on powder imports. Option 6 appears to be more effective, but results in greater disadvantages for consumers in case of a spike in global prices (+12% for the price of

the least expensive repackaged powder compared with the current situation, compared with -3% in Option 3). Compared with the current situation, Option 3 would both stimulate the local sector and protect consumers in a context of surging prices. In countries where VAT has already been scrapped or reduced on many dairy products, it would be appropriate, in both these options, to replace the VAT cut with another equivalent fiscal measure: either the reinstatement of VAT on products made from imported powder or tax exemptions of another kind for processors of local milk. As far as the pace of implementation is concerned, the CET and VAT measures should be implemented immediately in order to bring about a significant change in the economic environment and encourage a real change in actors' behaviour. As for the ban on fat filled milk powder, it would be preferable to introduce this after maintaining tariffs of 35% for a period of time, so that it is introduced in a context where the actors have already made decisions concerning substitution. Furthermore, given that this measure would result in fat filled milk powder being replaced by more expensive whole milk powder (and probably in part by skimmed milk powder), it is preferable to introduce such a measure at a time of relatively low global prices in order to mitigate the impact on consumers.

Options 4 (ban on fat filled milk powder) and 5 (making powder imports conditional on the incorporation of local milk) would have significant effects and are therefore also worth discussing. Both options are currently being considered by Nigeria. The actors we met seemed to be sympathetic to Option 5 and much more reserved about Option 4, with particularly strong fears being expressed about the impact on consumers. The impact on consumer prices would indeed be significant (+19% to +20% on products made from fat filled milk powder, after its replacement by whole milk powder), although, as we have mentioned, the overall impact on per capita food expenditure would be limited. However, Option 5 would benefit from further expert consideration to verify its technical feasibility in countries where not all importers are processors. The combination of Options 3 and 5 was not simulated, but it would also be worth considering and we can assume that its effects would be similar to those of Option 6. Making the use of imported powder conditional on the use of 20% local milk by processors is a measure that could only be introduced gradually in stages (over five years, for example), to give processors and collectors time to make the necessary investments and to give farmers time to develop their production.

The effects of Options 1 (CET) and 2 (VAT) appear to be insufficient to provide a significant boost to the local milk sector.

Whichever option is chosen, the following recommendations can be made to ensure that the conditions are right for its implementation and success. Most of the recommendations are aimed at West African actors, and some of them are aimed at the European actors.

Conditions for implementation:

- An increase in the CET would lead to a minority of countries being in breach of their WTO commitments. Countries in the region could, however, argue within the WTO that, in overall regional terms and taking into account the relative importance of each country's powder imports, an increase in the CET would remain well below the regional commitment ceiling calculated in this way (in particular, the bound tariff for Nigeria alone is 150% for both whole milk powder and fat filled milk powder). With regard to making the CET more flexible for reasons of consumer food security and protection of the local dairy sector, the countries of the region would have strong grounds for defending such measures at the WTO, given the economic, social, environmental and security situation and the challenges that the region faces (particularly in rural areas). Increasing the CET would pose specific problems for Côte d'Ivoire and Ghana, which have signed EPAs with the European Union in which they undertake to completely liberalise trade in bulk milk powders and fat filled milk powders. This specific provision would need to be renegotiated

in order to classify all dairy products and derivatives as sensitive products. It should be noted that the non-tariff measures envisaged in certain options (ban on imports of fat filled milk powder and making the use of powder conditional on the use of local milk) are also contrary to WTO commitments, so a strong political will would be required to defend them.

As part of its commitment to ensuring that its policies are consistent with development, the EU should facilitate the acceptance of these changes at both WTO and EPA level, since they are justified by the specific challenges facing the West African region. A clear message from the European Union supporting West Africa's desire to implement trade and tax policies that benefit local milk, and support in discussions on trade agreements, would help to create an environment conducive to ambitious decisions by the countries in the region.

- With regard to decisions on VAT, it is desirable to classify dairy products made from fresh milk as basic necessities (which can be exempted from VAT) in the ECOWAS common VAT harmonisation framework.
- Given the legitimate fears of political decision-makers and also the influence of certain actors who have no interest in changing trade and tax policies in favour of local milk in the West African region, it is important that representatives of the local dairy sector, civil society organisations and their allies in the political sphere and the institutions ensure that they have the resources to make a properly substantiated and effective case, both to individual countries in the region and to ECOWAS. Donors, international cooperation actors and multinationals must not be overlooked either, and from this point of view, European actors with an awareness of the issues and a commitment to supporting the West African actors also have a role to play. Generally speaking, it is important to take all the factors influencing changes in public policy into account, in particular the conjunction of the '3 Is', i.e. interests of the actors, institutions (formal and informal rules depending on the choices that are made previously) and ideas (frames of reference and paradigms)⁴⁸.

Conditions for success:

- Whichever option is considered, the region's capacity for increases in milk production is one essential condition for success, its collection and processing capacity is more essential still. Increasing production during the dry season is a particular challenge in certain regions where production is highly seasonal. The use of trade and tax policy measures can therefore be a powerful way of encouraging this growth, but unless the other constraints are remedied, these measures would have negative impacts overall, specifically on consumer purchasing power. This is why the implementation of trade and tax policy measures must be part of the more general framework for operationalisation of the guidelines in the *Regional Offensive for the Promotion of Local Milk Value Chains in West Africa*.
- In addition, the policy of developing the local dairy sector could be a success yet still have negative effects for certain actors who should really be supported: competition from large industrial companies for supplies of local milk, creating difficulties for small-scale and semi-industrial businesses that already source local milk; exclusive development of industrial farms, sidelining the development of the agro-pastoral and pastoral areas; and the exclusion of women, who currently play a

⁴⁸ On this, see Coste Jérôme *et al.*, 2021, especially the introduction and conclusion.

central role in the production and informal marketing of milk, due to the prospect of higher milk sales in the formal sector. Concerted and inclusive public policies, mobilisation of the actors involved and affirmation of the value of women's work should help to prevent these risks.

- Alongside the policy of boosting the local milk sector, and in order to reinforce it, measures should be taken to promote local milk among consumers, and to comply with (and if necessary reinforce) regulations on product packaging and advertising to combat consumer misinformation, which is very common in sales outlets in the region. More could be done to supply schools and other establishments with local milk, along the lines of what is already being done in various countries in the region.
- For all these reasons, those involved internationally, particularly in the European Union, should provide or increase their support for all aspects of the *Regional Offensive for the Promotion of Local Milk Value Chains*, so as to contribute to its success and enable the local milk sector to take full advantage of the new environment generated by changes in trade and tax policies.
- It would also be desirable for actors in the European dairy sector to deepen their commitment to Social and Environmental Responsibility by fully taking on board the issue of the use of palm oil, whose production contributes directly or indirectly to deforestation and whose products (fat filled milk powders) represent strong competition for the local dairy sector in West Africa. The question of banning palm oil imports should also be addressed at a political level, given the foreseeable limits of European regulations on imported deforestation.
- The success of trade policy depends on the existence of complementary measures to avoid shifts either to imported manufactured products that are ready for sale, or lower quality, cheaper products. This is why it is important also to apply a 35% tariff to other dairy products, as envisaged in the *Regional Offensive for Local Milk* (which mentions applying this rate to all dairy products), i.e. both processed products (which, with the exception of yoghurt, are currently subject to a 20% tariff) and skimmed milk powder. This measure should be extended to all plant-based food preparations (particularly soya) that could replace dairy products.

APPENDIX 1. PEOPLE WE MET

In West Africa (in addition to the people met during the country studies and discussions within the study steering committee):

- Amadou Hindatou, Association for the Promotion of Livestock in the Savanna and the Sahel (APESS).
- Bio Goura Soulé, Livestock and Pastoralism Technical Assistant, Directorate of Agriculture and Rural Development, ECOWAS Commission.

In Europe:

- Fabienne Alcaraz, Paola de Caro, International Relations Officer, Carlos Martin Ovilo and Brigitte Missonne, Head of Unit, Directorate-General for Agriculture and Rural Development (DG AGRI), European Commission.
- Benoit Biteau and Michèle Rivasi, MEPs (France).
- Jean-René Cuzon, French Development Agency (AFD).
- Benoit De Waegeneer, General Secretary, Humundi (Belgium).
- Fanny Lashcari, CIRAD Ph.D student at the ES (Environment and Societies) Department of the National Interprofessional Centre for the Dairy Economy (CNIEL, France).
- Régis Méritan, agro-economist, and Philippe Thomas, economist, Directorate-General for International Partnerships (DG INTPA), European Commission.
- Kjartan Poulsen, Chair, European Milk Board.
- Benoît Rouyer, Director of Economic Forecasting, CNIEL (France) (with additional input from Frédéric Gaucheron, Dairy Sector Science and Economics team).

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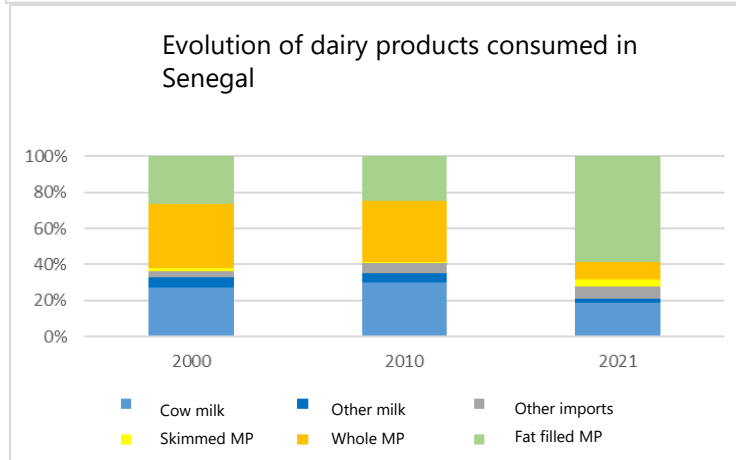
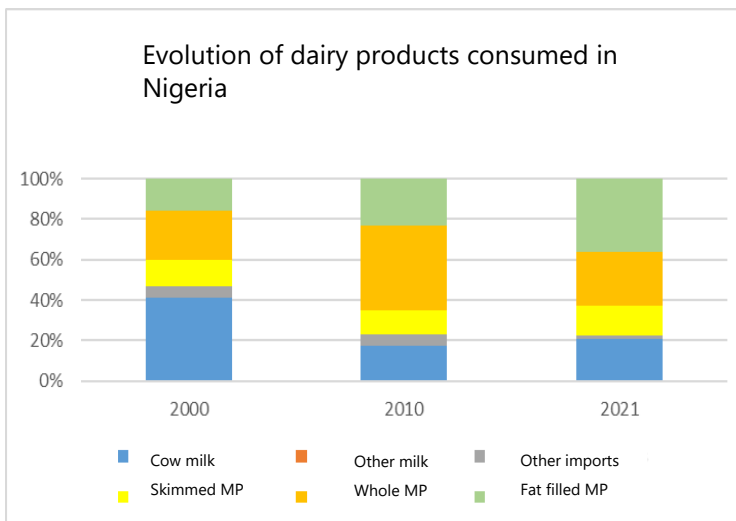
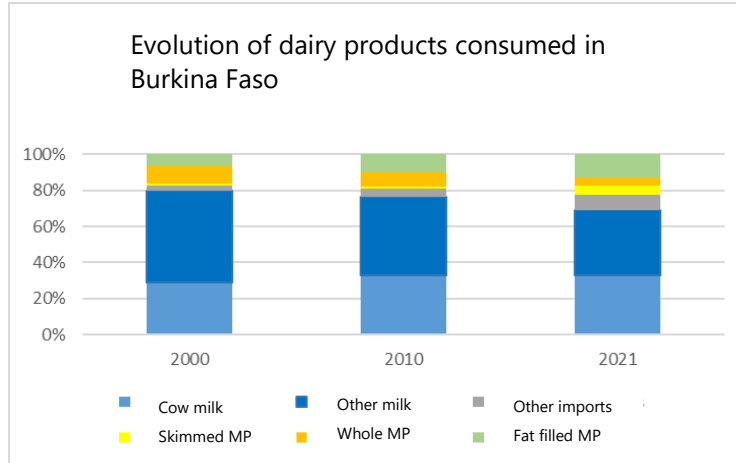
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APPENDIX 3 – ADDITIONAL GRAPHS

Changes in the proportion of dairy products consumed in Burkina Faso, Nigeria and Senegal

Local production (in blue): 'Cow's milk' and 'Other milks' (sheep, goat, camel)

Dairy imports: 'Vegetable fat milk powders', 'Whole milk powder', 'Skimmed milk powder'



APPENDIX 4 - ASSUMPTIONS ON THE STRUCTURE OF CONSUMPTION OF MILK, MILK PRODUCTS AND DERIVATIVES IN WEST AFRICA

Regional production of cow milk	2900	million eq l	(2021)	consom.
Of which: * Autoconsumption and informal chain	92%	2668,0	million eq l	
of which: milk	66%	1914,0	million eq l	450
yoghurt	26%	754,0	million eq l	900
* Processing informal chain VAT	2%	58,0	million eq l	
of which: milk	0,5%	14,5	million eq l	1.100
yoghurt	1,5%	43,5	million eq l	1.300
* Processing formal chain VAT	6%	174,0	million eq l	
of which: milk	2%	58,0	million eq l	1.100
yoghurt	4%	116,0	million eq l	1.432
Imported powders	6.260	millions eq l	(2021)	
Of which: * Whole milk powder	22%	1.377	million eq l	
For: * Direct sale	5%	313	million eq l	1000
* Reconditiong	9%	563	million eq l	
with VAT	6%	376	million eq l	720
without VAT	3%	188	million eq l	720
* Milk production	4%	250	million eq l	
with VAT	4%	250	million eq l	1.100
without VAT	0%	-	million eq l	1.151
* Yoghurt production	4%	250	million eq l	
with VAT	4%	250	million eq l	1.300
without VAT	0%	-	million eq l	1.432
* Fat filled powder	66%	4.132	million eq l	
For: * Direct sale	2%	125	million eq l	850
* Reconditiong	40%	2.504	million eq l	
with VAT	28%	1.753	million eq l	600
without VAT	12%	751	million eq l	600
* Milk production	5%	313	million eq l	
with VAT	3%	188	million eq l	900
without VAT	2%	125	million eq l	938
* Yoghurt production	19%	1.189	million eq l	
with VAT	13%	814	million eq l	1.300
without VAT	6%	376	million eq l	1.425
* Skimmed and infant powder (not considered in the study)	12%	751	million eq l	1500
Other imports	810	million eq l	(2021)	
Exports	0	million eq l		
Production of other milks	1980	million eq l	(2021)	
Apparent consumption	11.950	million eq l		
Population	419	million	(2021)	
Apparent per capita consumption	29	l/pers		

**APPENDICES 5, 6 AND 7 – COUNTRY REPORTS FOR BURKINA FASO,
NIGERIA AND SENEGAL (SEPARATE DOCUMENTS)**