

# Research into the possible structural impacts of Dutch agrifood exports to Africa

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## Key findings

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1. 'Vulnerable' African countries imported around \$ 1 billion worth of agricultural products from the Netherlands in 2023, or around 2% of their total, with Dutch exports declining over time;
2. Onion exports to Senegal and potato exports to Côte d'Ivoire were selected for in-depth research given their likelihood of causing structural impacts as they represent substantial Dutch trade volumes and import market share (\$ 33.3 million volume and 71% market share for onions to Senegal; \$ 10.0 million and 84% for potatoes to Côte d'Ivoire);
3. In-depth research found no statistical evidence or other indications that Dutch onion exports cause structural negative effects on prices for local onion farmers in Senegal. In Côte d'Ivoire, the sector's small size limited the ability to detect statistically significant results, but no indications of structural negative effects were found. In both cases, current trade was seen as complementary rather than competition;
4. The absence of structural impacts in both case studies is due to a Senegalese government limiting imports to protect domestic producers, and Ivorian farmers not producing potatoes but other crops; In both cases, Dutch companies are supplying high-quality seeds, considered essential to enhance domestic onion and potato production; and
5. Trade impacts were complex, context specific, and shaped by local actors. While it is impossible to rule out structural impacts in every instance of Dutch exports to 'vulnerable' countries, it is very likely that impacts of imports from the Netherlands not examined in detail would be at most very limited, as they constitute only a limited share or volume of an African country's total import of that product.

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## Acronyms

ANADER	National Agency for Rural Development Support
APPT-CI	Potato Producers Association of Côte d'Ivoire
ARM	Market Regulation Agency
CAP	Common Agricultural Policy
CET	Common External Tariff
CSDDD	Corporate Sustainability Due Diligence Directive
CSRD	Corporate Sustainability Reporting Directive
DIPA	Declaration of Importation of Food Products
ECOWAS	Economic Community of West African States
EU	European Union
EUDR	Deforestation Regulation
FONGS	Federation of Non-Governmental Organisations of Senegal
FPMN	Fédération des Producteurs Maraîchers de la zone des Niayes
GDP	Gross Domestic Product
HOA	Holland Onion Association
HS	Harmonised System
ISRA	Senegalese Institute of Agricultural Research
MFTD	Ministry of Foreign Trade and Development
NAO	Dutch Potato Organisation
NGO	Non-Governmental Organisation
PND	National Development Plan
UN	United Nations
USD	United States Dollar
WTO	World Trade Organisation

## Summary

This study explores and assesses the structural impacts of Dutch food exports to vulnerable contexts on the basis of two in-depth case studies. The overall purpose is to inform the Dutch government on structural impacts of Netherlands' agrifood export on local markets and smallholder farmers in countries where building stable sustainable food systems and promoting a healthy nutritious diet is a challenge. The direct reason for this study is to respond to the parliamentary motion 29 237 no. 196 by Members THIJSEN and AMHAOUCH submitted during the debate on the Africa Strategy on the 26th of October 2023 (Tweede Kamer, 2023), and Motion 36 410 XVII nr. 32 by member BOSWIJK et al. proposed on the 31st of January 2024 during the Adoption of the budget statement of Foreign Trade and Development cooperation (Tweede Kamer, 2024), calling on the government to investigate where Dutch food exports hinder food production, particularly by small-scale farmers, and the development of local markets in third (developing) countries. The practical goal of this study is to provide a basis for input into the Dutch government's trade and food security strategies.

Concerning these debates, the Netherlands is a major global food trader, combining domestic production with re-exports through its important logistics and agrifood cluster. International trade plays a dual role in food security—supporting availability, affordability, and resilience, but also creating competitive pressures and structural risks in vulnerable markets. The EU–Africa trade relationship exemplifies this duality: the EU exports high-value commodities while importing essential staples, a pattern that can both integrate and destabilise local food systems in Africa. Although successive reforms of the Common Agricultural Policy have significantly reduced market distortions, EU subsidies and regulations still influence market dynamics and development outcomes abroad, albeit to a much lesser extent than in the past.

Using criteria such as trade value, import share, and local food system vulnerability, two case studies were selected for in-depth research: Senegal, where Dutch onions are imported alongside a growing local sector in a context of high consumption and urban and rural poverty, and Côte d'Ivoire where Dutch potatoes dominate imports *and* consumption, as local production is practically non-existent.

Import data for Dutch onions in Senegal show a clear seasonal pattern: Dutch onions enter the country outside the local growing season. Senegal pursues a protective policy where imports are prevented during the onion harvest season by means of an import ban, and even when imports are possible, import tariffs are

levied. These trade measures are currently not officially contested by the EU or the Netherlands, showing the space for Senegal's government to use trade tools to support its agricultural development.

Statistical analyses reveal that the export of Dutch onions does not structurally influence the local onion market in Senegal; there is no evidence that Dutch export volumes structurally influence domestic prices, or that lower Dutch export prices lead to higher import volumes in Senegal. Finally, while the prices of local and imported onions do influence each other in the short term, any pressure on local prices disappears very quickly. All in all, Senegalese imports of Dutch onions appear to be complementary to local production, primarily determined by the country's trade policy.

Côte d'Ivoire is near-completely dependent on imports of both ware and seed potatoes which are mainly sourced from the Netherlands. Given the small sector size, market data availability is an issue because it affects the robustness and reliability of the results of the statistical analysis. However, it is possible to confer that lower Dutch prices lead to more imports. This relationship is driven by international market dynamics, where lower prices make imported potatoes more affordable to consumers. In the near-absence of domestic producers, this does not add pressures on current production. Côte d'Ivoire is a successful agricultural producer and exporter, but not in potatoes, stemming from high startup costs, limited profitability, and less-than-ideal growing conditions.

Hence, current potato imports are complementary, not competitive, primarily because local production falls far short of domestic demand and other exporters than the Dutch can supply Côte d'Ivoire. In Côte d'Ivoire, future domestic sector growth is less about protecting existing producers but rather supporting the creation of new ones through investment, with a smaller role to be played by trade restrictions. In the medium-to-long term, domestic potato production could increase if several input, production, finance and storage issues could be overcome.

While local market impacts depend on complex, context specific factors and local actors' actions, these case studies suggest that structural effects from Dutch exports to fragile African countries are very limited at most. Since the analysed cases represent the highest Dutch market shares, it is highly probable that impacts on other, smaller trade flows not examined in detail would be absent or at most very limited.

## 1. Introduction: Dutch food exports to vulnerable contexts

### 1.1 The Netherlands is a major food exporter

The Netherlands is a major food trader and consistently ranks among the world's largest agricultural exporters by trade value. In 2024, Dutch agrifood exports reached €128.9 billion, an increase of 4.8% compared to the previous year. These headline figures, however, require context. Imports remain substantial, at €86.1 billion, leaving a trade surplus of €42.8 billion. Roughly two-thirds of exports (ie, €84.3 billion) are domestically produced, while the remainder consists of re-exports (Jukema et al., 2025). For a densely populated country of relatively small size - ranking 134th in land mass and 26th in population density - this volume of trade is unusual and reflects the Netherlands' position as a highly efficient food producer with a potent value-adding processing sector, and as a major trading hub connecting the Netherlands, Europe and the world.

The Netherlands' role is supported by its extensive logistical infrastructure and agrifood cluster dynamics. The Port of Rotterdam, the largest in Europe, and Amsterdam Schiphol Airport, the continent's fourth-largest, serve as gateways for both Dutch and international goods. This is complemented by an agrifood cluster that tightly connects production, processing, input provision, research, and finance. The interplay of infrastructure, location, and cluster dynamics helps explain the scale of Dutch agrifood exports relative to the country's size, and why Dutch products can be prominent in European markets and beyond.

### 1.2 Vulnerable African countries import about \$1 billion from the Netherlands

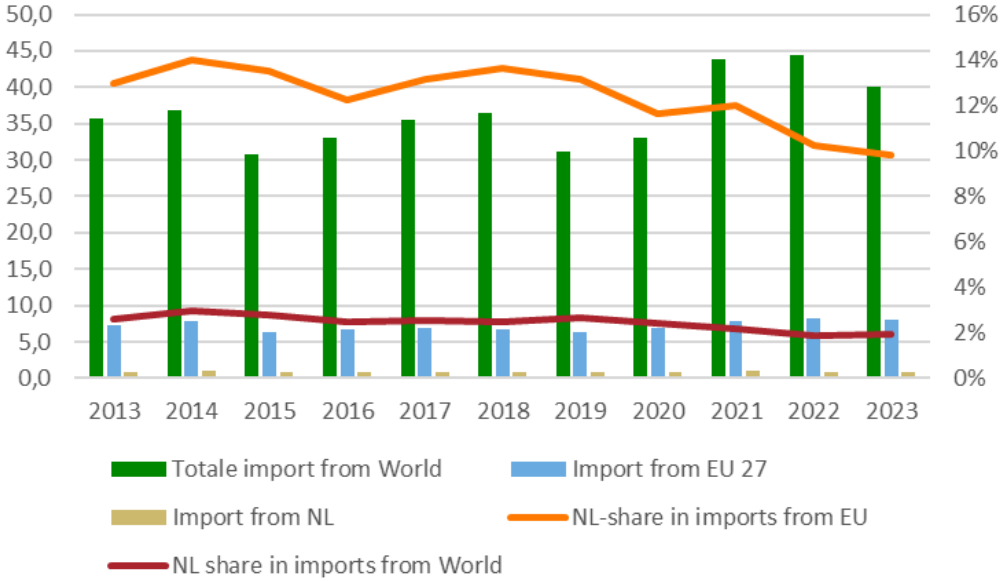
Africa<sup>1</sup> imports of agricultural and food products (HS01-24, excluding fish HS03) have risen to \$42.7 billion on average in recent years, which is significantly higher than the average import value in the period 2013-2020 (34.1 billion, see Fig. 1). Imports from EU27 fluctuate around \$6.5 and 8.0 billion over the whole period. Imports from the Netherlands are just below \$1 billion, accounting for 10-12% of Africa's imports from the EU. Netherlands' share of the total African food import market has fallen below 2% following a ten-year decline.<sup>2</sup>

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<sup>1</sup> For the purpose of this study, 'Africa' refers to the Sub-Saharan region, excluding South Africa, to focus on markets characterised by higher structural vulnerability and lower levels of industrial agricultural development.

<sup>2</sup> Note that there is a significant discrepancy between the export figures reported by the Dutch authorities to UN COMTRADE and the import figures recorded and reported to UN COMTRADE by the receiving (African) countries. The export figures are substantially higher than the import figures. There are several reasons for this, such as differences in product definitions, transportation and other costs included, time of registration and update of trade flow, or different conversion rates to USD. Because we want to align trade data with supply and demand

**Figure 1: Food imports of selected African countries from the world, EU, and Netherlands (\$billion), including Dutch market shares (%).**



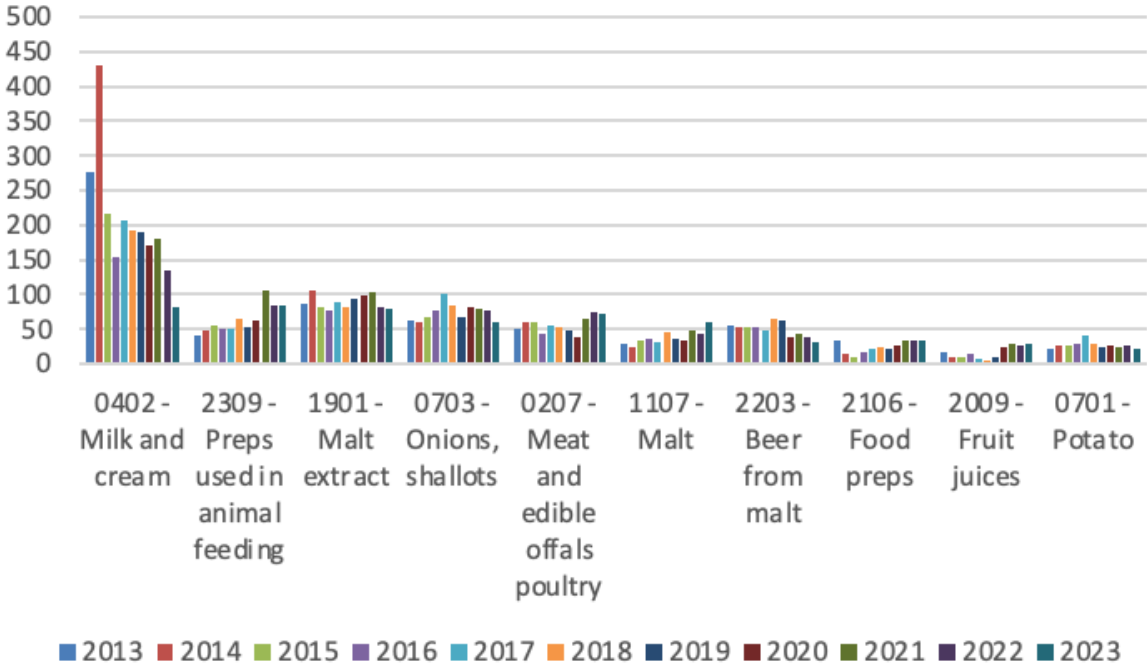
Source: UN Comtrade

### 1.3 Trends in Dutch exports to vulnerable African countries

Figure 2 presents the top-10 of Dutch exported products imported by African countries and shows the trend over the period 2013-23. 'Milk and cream' (in concentrated form) constitutes by far the largest import flow but has lost its dominance by 2023 as import values of 'Preparations used in animal feeding' and 'Malt extract' in that year were almost equal to the import value of Milk and cream. The import of 'Preparations used in animal feeding' shows a clear upward trend as do 'Meat and offal of poultry' (since 2020), 'Food preparations' and 'Fruit juices'. Potato imports have remained more or less stable over the period, as have imports of onions since 2018.

developments in domestic markets, we use import data from countries that receive products from the Netherlands, not Dutch export data.

**Figure 2: Netherlands major export products to Africa (in \$million).**



Source: UN COMTRADE

## 2. Reviewing the food trade debate: balancing food security, local production, and livelihoods

### 2.1 Food trade benefits food security but can lead to underinvestment

The discussion around impacts of trade – mostly from high-income countries – on the food security of developing countries are well researched (e.g., van Berkum, 2021; Ragasa et al., 2020). International trade is a key component of national food security, with positive associations with most dimensions of food security (van Berkum, 2021). Benefits can accrue to both consumers and producers. For consumers, trade enables access to a wider variety of food (Khoury et al., 2014). Imports can also improve affordability, especially in urban areas where they help stabilise staple food prices. For producers, trade provides access to new markets and opportunities to diversify sales. More broadly, trade also plays a stabilising role by helping manage supply chain disruptions and offset local food shortage. It provides a means to mitigate the impacts of regional crop failures, ensuring that food can be moved from where there is a surplus to deficit areas. Furthermore, with the impacts of climate change growing, trade becomes even more important for resilience, especially for hard-hit sub-Saharan Africa (Janssens et al., 2020).

However, there can also be drawbacks for certain groups and areas – creating winners and losers. Benefits of trade may flow more to consumers in terms of lower prices (especially urban poor) while farmers may face competitive pressures. For consumers, trade may increase access to both healthy and unhealthy food, with the latter contributing to obesity, especially in developing countries, while trade agreements may constrain the policy space available to governments seeking to tackle overnutrition (An et al., 2019; Springmann et al., 2023). For producers, trade can *replace* domestic products with cheaper imports, or *discourage* investments, leading to a cycle of (over-)reliance on international markets and weakened food systems. As opportunities in farming decline, rural viability is threatened, fuelling migration to urban centres. In many African contexts, this is compounded by a lack of elite interest in developing agriculture (or industrial bias; Resnick, 2020), which limits policy attention and investment in rural areas.

The development impacts of food exports are complex and highly context-dependent. Market conditions shift over time and differ across competitors, while outcomes vary between rural areas, consumer groups, and production systems. Imported products can expand consumer choice and meet demand that cannot be met locally; but they can also replace or discourage local producers. Agroecological conditions and local demand patterns shape how imports interact with domestic supply, and inequality influences who benefits and who loses. These dynamics unfold within the framework of global trade rules, including WTO trade rules and anti-dumping measures, which set boundaries but do not eliminate asymmetries.

The overall result can be structural underdevelopment, where agriculture no longer provides the foundation for wider economic transformation (Gollin, 2023). It is traditionally understood that productivity increases in the agricultural sector are necessary to trigger structural transformation into industry (Timmer, 1988), and weakened agri-sectors can therefore affect broader development and national resilience. These issues can produce unstable, insecure areas in the importing countries, but can also have unintended consequences for exporting countries in terms of security risks, less market development, reputation concerns, and unwanted international migration.

Not all imports are dependencies, or not all dependencies are equally important. Jukema et al. (2025) distinguishes between three types of import dependencies for the EU that can be useful to think about food import dependency elsewhere: *general*, where imports form a large share of supply and come from few non-EU countries; *strategic*, where imports concern products vital to national or EU

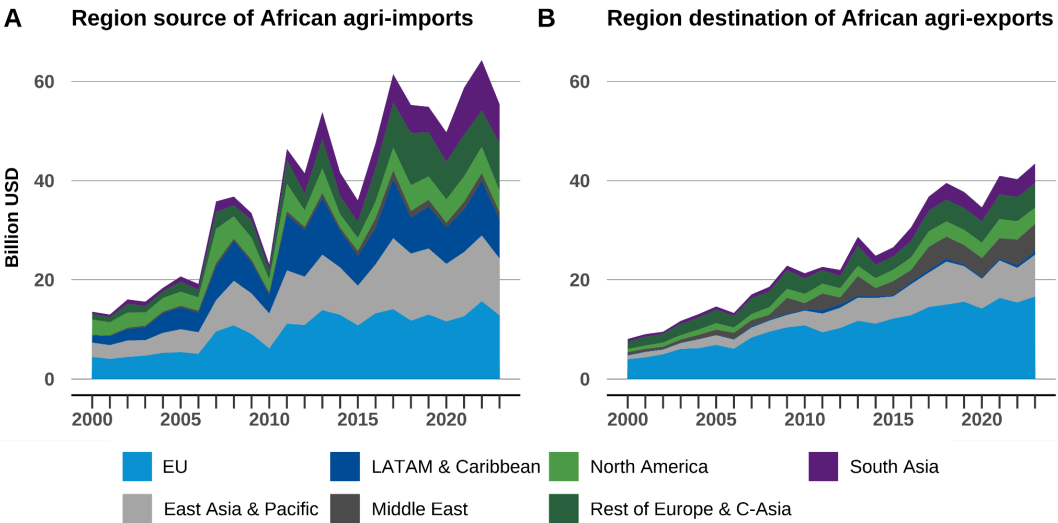
interests; and *risky strategic*, where high concentration or limited substitution creates vulnerability to supply disruptions.

The interaction between local food systems and foreign trade thus takes place against a backdrop of internal and external forces that can reinforce each other. Cheaper imports can weaken incentives to invest in domestic production, while limited policy attention and support leave farmers less able to compete. At the same time, trade remains important for food and nutrition security, resilience, and for the commercial opportunities it offers to producers able to access export markets. This complexity is also readily apparent in EU-Africa trade, as discussed below.

**2.2 Recent EU-Africa food trade shows some of the opportunities and disadvantages of trade**

The EU is Africa’s largest food trading partner and thus the two continents shape each other’s food systems. The EU imports high-value African products such as coffee, cocoa, and fruits—commodities that generate crucial foreign exchange and connect millions of African farmers to global value chains. At the same time, the EU supplies about 23% of Africa’s food imports, making it the continent’s leading external source of food, with East Asia & the Pacific close behind (Dekeyser, 2025). The structure of this exchange differs sharply across regions: while North Africa remains a net food importer, sub-Saharan Africa exports more food in monetary value to the EU than it imports.

**Figure 3. The EU remains the most important region for international sourcing and destination of African food.**



Source: FAOSTAT adapted by Dekeyser, 2025

Preferential trade agreements have expanded market access and driven higher trade volumes. In 2019, more than 90% of African exports entered the EU duty-free. Tariffs persist on some processed or sensitive products, but their overall influence on Africa–EU trade has steadily declined. The main barriers today are non-tariff measures: strict EU requirements on food safety, quality, and sustainability that can be costly for small exporters to meet. Even so, African food exports to the EU continue to grow, particularly in competitive and highly regulated value chains such as horticulture and farmed fish (Bureau & Swinnen, 2018).

The EU’s approach to agricultural trade has evolved. Protective of its domestic markets in the 1960s, the EU began liberalising agriculture in the 1990s. Recently, however, attention has shifted toward reducing external dependencies—especially for fertilisers and protein crops—reflecting a broader turn toward viewing trade through a security and resilience lens (Dekeyser, 2025).

Africa’s trade with the EU thus reveals a dual dynamic. The continent is both a supplier and a buyer in EU-linked food systems—exporting high-value commodities while importing essential staples. This integration creates opportunities for some producers but exposes others to structural pressures and unequal competition. The outcome is a complex trade relationship shaped by differences in scale, product type, and market position—where the same trade that fuels growth for some actors can entrench vulnerability for others.

### 2.3 Food dumping and other distortions

Civil society organisations, such as the Dutch Oxfam Novib, have long raised concerns about food exports to developing countries. Their critiques centre on the risk that products from Europe, buoyed by subsidies and/or unfair trade agreements, gets *dumped* (ie, products exported over a sustained period with prices lower than in the country of origin or below the cost of production) in Africa and then undercut farmers in those markets.

Humundi, a Brussels-based NGO, released in 2019 a campaign criticising EU milk powder exports, often skimmed to make butter and then blended with palm oil, as these exports could be displacing locally produced fresh milk in African countries. The NGO identified responsible drivers for this displacement being trade agreements, EU farm subsidies and the 2015 abolishment of milk quotas. The EU is singled out as the largest trade distorting factor on world milk markets (Choplin, 2019). In parallel, NGOs supported the campaigns *Mon Lait est Local* in West Africa to entice local milk development in West Africa (Oxfam Novib, 2020). FIAN and others (CSTNZ, 2008) warned already in 2008 about the possible impact that trade agreements and EU subsidies could have on Zambia’s milk market. EU subsidies and unfair trade policies are also the culprit in Forin’s (2018) post on how

Italian tomatoes devastate West African tomato production. Researchers have made similar observations about the risk of EU policy leading to food dumping (de Steenhuijsen Piters, 2023; de Steenhuijsen Piters et al., 2023). In South Africa, the EU's diplomatic service responded to allegations that the EU 'dumps' chicken bone-in parts on South Africa (EEAS, 2017).

Particular attention in the food dumping discussion is on the EU's farm bill, the Common Agricultural Policy (CAP). The CAP has long been seen as a spectacular example of policy incoherence for development (Matthews, 2008). Especially contentious were its export refunds which covered the gap between high internal EU prices and lower world market prices and made it possible for EU farmers to sell their products abroad more cheaply – without losing money – while keeping EU domestic prices high. Again, impacts differed: consumers in importing countries in effect received an EU subsidy through the export refunds, but local producers were disadvantaged (Matthews, 2008).

Recent studies point to a drastically improved coherence between the EU's CAP and development, as a result of successive CAP reforms (Bureau & Swinnen, 2018; Matthews & Soldi, 2019; Matthews et al., 2017). Export refunds, for example, have been phased out since 2010, and most support shifted to decoupled direct support. In the CAP 2023–27, more than seventy percent of its budget is direct support, which is dominated by an annual area-based payment and is 'decoupled', meaning that it is not tied to producing specific products.

While coherence vastly improved, some distortions remain: Matthew and Soldi (2019) evaluated the impacts of EU farm subsidies on developing countries and found that, overall, EU farm subsidies influenced the price somewhat of milk powders, not significant for tomato paste, and non-existing for chicken meat. The distortions in the milk powder market stemmed from several factors: subsidies that keep farms in operation that might not be otherwise and thus keeps production capacity in place, the temporary overproduction following the abolition of milk quotas, and mechanisms supporting farmers during periods of price volatility.

Many countries support their agricultural sectors in ways that can distort trade. In 2020, the CAP accounted for 36% of all agricultural subsidies across OECD countries. Other major economies also intervene heavily: the United States of America and Japan provided roughly €97 billion and €50 billion in support respectively in 2020, while China's agricultural support expanded dramatically—from €52 billion in 2008 to €234 billion in 2020 (OECD, 2022).

Meanwhile, new regulatory instruments such as the EU Deforestation Regulation (EUDR), Corporate Sustainability Due Diligence Directive (CSDDD), and the Corporate Sustainability Reporting Directive (CSRD) also shape trade conditions by creating added costs to trading with Europe or for European companies (Byiers et al., 2023). On the farm bill side, in the Commission's recent budget proposal for 2028–33, the minimum floor for farmer payments is under discussion.

### **3. Methodological approach and case study selection**

#### **3.1 The methodology combines data analysis with interviews and case studies**

The study uses a mixed-methods approach based on detailed case studies to assess the impact of Dutch agricultural exports on local markets. On the quantitative side, researchers analyse economic data, such as import volumes, export prices, and local retail prices. This statistical analysis allows them to identify broad market trends and explore whether imports are economically competing with domestic farmers.

This quantitative analysis will be combined with interviews from the relevant actors engaged in the selected case studies, including producers, importers, middlemen, traders, public officials, and researchers, amongst others. This combined approach seeks to both provide overarching insights on the relations between Dutch food exports and importing markets, and explanatory notes and stakeholder perspectives of such linkages.

#### **3.2 Data analysis approach**

The quantitative design investigates how Dutch onions to Senegal and potatoes to Côte d'Ivoire – the two selected case studies – impact local markets and producers. It focuses on testing three core hypotheses: whether larger volumes of Dutch imports drive down local market prices, whether cheaper Dutch export prices trigger an increase in import volumes, and how closely local prices track the prices of Dutch exports over time.

The analysis uses time-series regression models that track how these different economic variables interact while controlling for regular seasonal market patterns. Because statistical tests showed that local prices and import variables often share a long-term equilibrium, an error correction model is used to correct for this.

This model can show two distinct market dynamics: the immediate, short-term effects of a change (such as how local prices react in the exact month imports surge) and the long-term adjustments, which reveal how quickly the market corrects itself and returns to balance after a sudden disruption or shock. The initial design included a comparison of these effects between regions, to assess whether regions close to ports respond more strongly to changes in import prices and/or quantities. However, data of sufficient quality was not available at a regional level for either case study to perform this analysis. A detailed methodological note is provided in the annex.

### 3.3 Case study selection

#### 3.3.1 Africa's imports of Dutch products by category and market share

Table 1 shows who the largest importers of Dutch agricultural products are and the share of Dutch products imported in a country's total import for that product. Nigeria and Côte d'Ivoire are the largest importers, followed by Senegal and Ghana, and Uganda and Gabon. Table 1 also shows, by country, the three most important import products from the Netherlands and import products (of the ten largest import flows from the Netherlands) that have an import share of more than 35% of the total import of that product. The 35% is considered a threshold above which the import flow could potentially have a dominant, market-influencing position. For Nigeria, this last point applies only to fruit drinks (which account for almost 36% of Nigeria's imports of this product). For Côte d'Ivoire, five products meet this criterion, for Senegal three, for Ghana two, and for Uganda and Gabon three products each.

**Table 1. Netherland major export destinations in Africa, the major products, and the Dutch market share**

*(based on reported imports by African countries, in \$million 2020–2022 average; note that 2023 and 2024 data for quite a few African countries are missing in UN COMTRADE)*

<b>Netherlands most important export destinations in Africa</b>	<b>Total (HS1-24) imports av. 2020–2022 (\$million)</b>	<b>Netherlands major export products to Africa (HS-code, product name, value in \$million)</b>	<b>NL top 10 export products with a share of the country's total imports &gt;35% (%-share and value in \$million)</b>
Nigeria	149.5	0402 - Milk and cream: 40.4 1901 - Malt extract: 25.1 2106 - Food preparations: 18.7	2009 - Fruit juices: 36% (17.2)
Côte d'Ivoire	130.5	0703 - Onions, shallots: 31.4 1901 - Malt extract: 23.4 0402 - Milk and cream: 21.6	0703 - Onions, shallots: 62% (31.2), 2309 - Preparations in animal feeding: 43% (17.3) 0701 - Potato: 84% (10.0) 2009 - Fruit juices: 39% (4.2),
Senegal	96.4	0703 - Onions and shallots: 33.3 1901 - Malt extract: 23.0 0701 - Potato: 9.2	0703 - Onions, shallots: 75% (33.3) 0701 - Potato: 63% (9.2) 0706 - Carrots etc.: 39% (2.3)
Ghana	89.3	1517 - Margarine and shortening: 18.2 0207 - Poultry meat: 8.8 0402 - Milk and cream: 7.3	1517 - Margarine and shortening: 39% (18.2) 0105 - Poultry: 46% (6.0)
Uganda	45.5	2309 - Preparations in animal feeding: 36.1 2203 - Beer made from malt: 4.3 0402 - Milk and cream: 1.6	2309 - Preparations of a kind used in animal feeding: 36.3% (36.1) 0402 - Milk and cream: 60% (1.6) 0106 - Other animals: 89% (0.2)
Gabon	40.4	0402 - Milk and cream: 16.3 0207 - Meat and edible offal of poultry: 7.9 2203 - Beer made from malt: 5.0	0402 - Milk and cream: 48% (16.3) 2203 - Beer made from malt: 71% (5.0) 0703 - Onions, shallots: 62% (1.6)
Cameroun	35.4	402 - Milk and cream: 17.1 2103 - Sauces and preparations therefor: 5.6 2203 - Beer made from malt: 4.1	2103 - Sauces and preparations therefor: 53% (5.6) 407 - Birds' eggs: 67% (3.2) 2202 - Water etc.: 61% (2.0)
Angola	34.4	1107 - Malt: 9.5 0402 - Milk and cream: 7.1, 0207 - Meat and edible offal of poultry: 6.7	All <35%
Congo DR	33.9	0402 - Milk and cream: 6.4 0703 - Onions, shallots: 5.4 1107 - Malt: 5.4	0402 - Milk and cream: 36% (6.4) 0703 - Onions, shallots: 52.8% (5.4) 1101 - Wheat meal: 35% (3.4) 0810 - Fresh strawberries, etc.: 42% (0.9)

(Table Continues)

**Table 1.** Continued

<b>Netherlands most important export destinations in Africa</b>	<b>Total (HS1-24) imports av. 2020-2022 (\$million)</b>	<b>Netherlands major export products to Africa (HS-code, product name, value in \$million)</b>	<b>NL top 10 export products with a share of the country's total imports &gt;35% (%-share and value in \$million)</b>
Kenya	29.7	0402 - Milk and cream: 9.8 2203 - Beer made from malt: 3.0 2309 - Preparations used in animal feeding: 2.8	2203 - Beer made from malt: 47% (3.0) 2004 - Vegetables prepared etc.: 64% (1.2) 2206 - Cider, perry, mead: 46% (1.2)

*Source: UN COMTRADE, data retrieved on December 9, 2025*

### 3.3.2 Onions to Senegal and potatoes to Côte d'Ivoire have a high potential for structural impacts

The most promising case studies are summarised in Table A.1 (in the Annex) and combined with relevant factors mentioned in the parliamentary motions to guide the selection of two case studies. The selection of promising case studies was based on the combination of average import values and import shares for 2020–2022, as shown in Table 1 above, and combined with an initial value chain analysis. Some products–country combinations from Table 1 show relatively high import values but low import shares—for instance, milk and cream imports from the Netherlands of Nigeria amount to \$40.4 million yet account for only a small fraction of the country's total dairy imports, reflecting the scale of Nigeria's overall market – are excluded, as they could then point to a limited degree of potential impacts of these products on Nigeria's market and producers. Also excluded are compound or composite products with ingredients coming from other countries: margarine, for example, results from a complex value chain and contains a changing variety of different oils, a number of them coming from outside of Europe (e.g, palm oil, coconut oil), making Dutch attribution difficult. Box 1 summarises our selection criteria.

### **Box 1: Selection criteria**

The study applied a set of filters in identifying Dutch food export chains with potential structural impacts on African markets:

1. **Excluding re-exports:** Only products genuinely produced in the Netherlands were considered, not those merely transshipped through Dutch infrastructure or processed for re-export. For formulated products (e.g. margarine), a significant share of ingredients must be traceable to Dutch farmers.
2. **Market relevance:** Products selected represent a significant share of local imports or domestic market supply, ensuring meaningful potential impact.
3. **Context sensitivity:** Focus on vulnerable or fragile food markets, where Dutch food exports could influence local production, prices, or food security.
4. **Scope limitation:** Fish and seafood products were excluded, given their distinct value chains and governance frameworks.

The export of onions to Senegal and potatoes to Côte d'Ivoire presents a high potential for structural impact. In Senegal, Dutch onion exports constitute a significant annual value of \$33.3 million and a dominant market share of 75%, suggesting a high risk of market disruption within a context of high consumption and socio-economic vulnerability. While Dutch potato exports to Côte d'Ivoire are lower—valued at \$10 million annually and 84% import share—the lack of strong local cultivation may itself be an indicator of long-term structural competition. Côte d'Ivoire is also an interesting case study because the country is a significant destination for Dutch exports to Africa.

Unfortunately, onions to Senegal and potatoes to Côte d'Ivoire risk a certain degree of research overlap as they have similar characteristics - namely, an unprocessed product traded to geographically adjacent West African nations. This might limit the study's findings and forgo insights into the distinct dynamics of processed product value chains or different regional contexts. However, alternative product-country combinations are limited, as other potential cases demonstrate a significantly lower likelihood of generating measurable structural impacts. Based on feedback from the project's reference group were three cases added for consideration: poultry to Ghana and milk powders to the DRC and

Uganda. All three potential cases face at least one problematic factor that complicates the achievement of the research objectives. Ghana's import of poultry meat from the Netherlands accounts for less than 10% of the country's imports of poultry meat; imports from Belgium, Brazil and the USA are much more significant than from the Netherlands. Also, Uganda's import of milk powder from the Netherlands represents less than 10% the country's overall import of milk powder and appears to be of limited relevance to the scope of this research, due to low import volumes relative to robust local dairy production. This limits the potential impact of external trade flows on the structural market distortion. A case study in DRC faces the challenges of the questionable official data and hard-to-reach potentially affected small farmers in politically unstable regions of the country, which makes it very difficult to look beyond anecdotal evidence to map the structural consequences for the local value chain. A detailed rationale for the exclusion of these three suggested cases is provided in the Annex.

## 4. Case study 1: Onions to Senegal

### 4.1 Dutch onion exports

The Netherlands produces 1.3–1.7 million tonnes of onions annually (period 2020–25, CBS). Export volumes vary as production fluctuates due to weather and market conditions<sup>3</sup>, but accounts for roughly 90% of production volumes (around 1.1–1.2 million tonnes in recent years). Export destinations are other EU countries (32% of total exports) with third countries accounting for the major share (68% of exports in 2024/2025; HOA, 2026). Africa is an important export destination, with Senegal and Côte d'Ivoire as major markets (around 160,000–180,000 tonnes in 2024/2025 to each of the two countries). Logistics is mainly by lorries to EU destinations, and by freighter to other continents such as Africa and Asia. Costs of logistics are estimated 5 ct/kg (example Kruiningen–Paris per truck) and 2–2.5 ct/kg by container ship (examples Vlissingen/Antwerp–Dakar; Vlissingen–Malaysia; oral information). Although onions are grown in various provinces—with the largest areas in Flevoland and North Brabant—Zeeland is the heart of the sector, where approximately 80% of the onions are sorted, processed, and packaged. Onions produced for exports in the other provinces are often transported by inland waterway to the port of Vlissingen, where they begin their overseas journey in refrigerated containers (HOA, 2026).

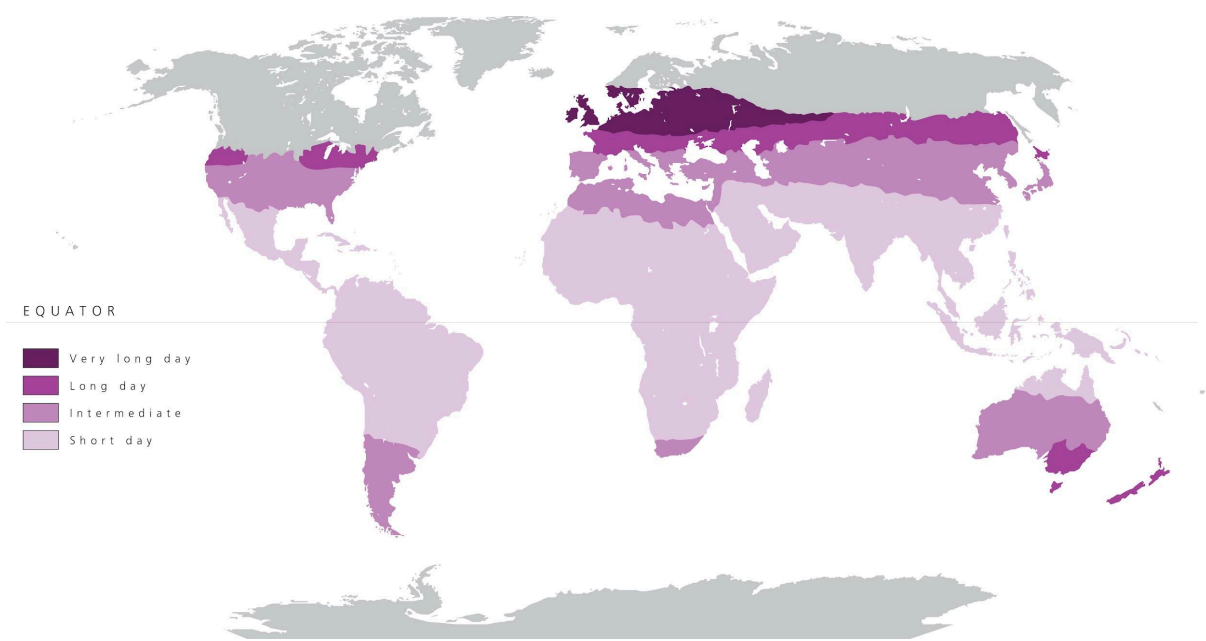
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<sup>3</sup> Onion cultivation is not covered by the direct market regulation under the Common Agricultural Policy (CAP) 2023–2027), but arable farmers can receive additional subsidies for onion cultivation through the general eco-scheme by focusing on sustainability. Onions are considered an important arable crop in the rotation. The area under onions in the Netherlands is around 32–34,000 hectares and approximately 3,400 arable farmers cultivate onions (CBS website).

The onion is a seasonal crop that usually grows in the Netherlands from April/May to late July/August (if started as a small bulb/onion set - in Dutch: plantui) or to late summer/early autumn (if started as seed onion, planted in February/March). Due to its quality and, in particular, its shelf life (combined with good storage and cooling facilities), the Netherlands is able to supply outside the harvest season. As a result, it has built a strong international competitive position and exports to approximately 140 countries worldwide (HOA , 2026).

A wide variety of onions are grown in the world. In the Netherlands, the so-called long-day onion varieties are grown. A number of Dutch breeders (seed companies) and packers/exporters are active in other parts of the world, breeding and producing local varieties that often need to thrive in a short growing season with shorter days.

**Figure 4: World map of onion growing season**



Source: De Groot and Slot [send directly], n.d.

**4.2 Senegalese imports of Dutch onions**

**4.2.1 Senegal onion consumption, imports and production**

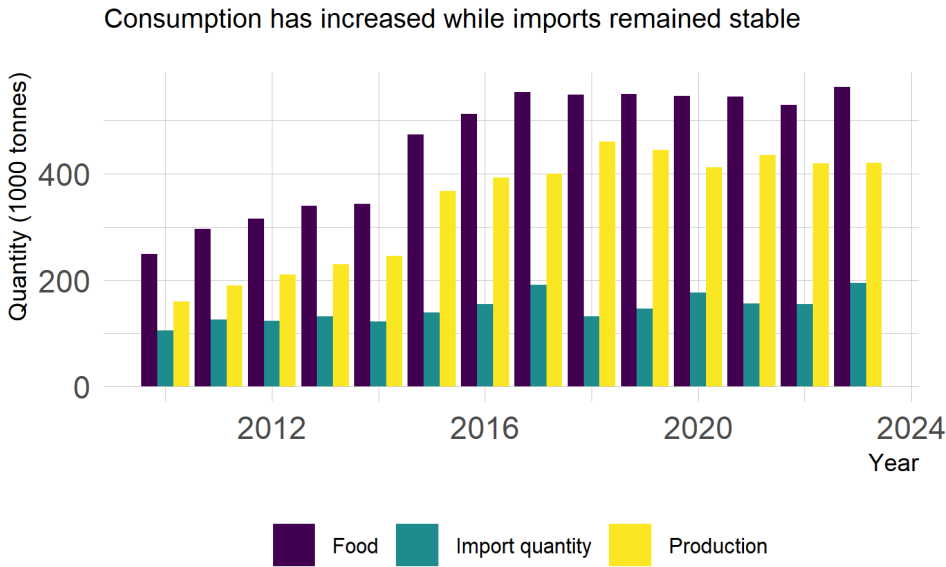
Senegal is a lower-middle income country (1,810 \$/capita in 2025) in West Africa. Its population is 18.5 million (2025; World Bank, 2025). Dakar is the largest city – the population of the Metropolitan area of Dakar was at 4 million people – and a center of government, banking and trade. Senegal has a relatively thriving tourist and telecommunication sector, which contributes to relative high GDP contribution of services (around 60%); agriculture contributes less than 20% to the

country’s GDP while 40–50% of the labor force has its occupation in agriculture and fisheries, indicating relatively low levels of income in agriculture and fisheries.

This disparity underscores a significant productivity gap: while urban centers like Dakar have poverty rates around 15%, rural areas are closer to 55% (World Bank, 2024). The agricultural sector is characterised by low-income smallholder farming, with the country remaining a net food importer, maintaining an agricultural export-to-import ratio of 0.79 as of 2024 (ReSAKKS, 2026).

Senegal’s onion sector is characterised by very high national consumption, a growing domestic production, and strong government interventions. With per capita consumption estimated at approximately 30–35 kg per year – among the highest globally – onions are a staple commodity for Senegalese households and feature heavily in its national cuisine.<sup>4</sup>

**Figure 5: Senegal onion consumption, imports and production**



Source: FAOSTAT Food Balances

Domestic production has increased significantly over the last two decades, to the point where Senegal produces about 65–75% of its own needs. This growth has been primarily driven by land expansion, and to a lesser extent by yield improvements. The harvested area expanded from 2,000 to 13,000 hectares between 1990–2024, thanks in part to better water management and irrigation. Yields rose from 14.5 to 31.6 (Faostat, 2026). While yield gains are meaningful and reflect better agronomy, varieties, and good agricultural practices, its proportional contribution to total production growth is smaller than that of area expansion. The crop is critical for producers, particularly in the Niayes zone (peak harvest

<sup>4</sup> For comparison, per capita onion consumption in the Netherlands is estimated at ~7 kg.

March–April) and the Senegal River Valley (peak harvest May–June). These water-rich areas account for more than two-thirds of national onion production.

Production is dominated by many small farms under two hectares coupled with a few larger agribusinesses. The smaller farmers have limited access to finance, mechanisation, and professional management. Farm sizes, especially in the Niayes zone close to Dakar, are under urbanisation pressures, with production shifting inland. Producer organisation is perceived to be limited, with little coordination between producer zones.

Post-harvest losses are a major problem, with estimates that 20% to 40% of local production is lost before it ever reaches the consumer (RVO, 2021). On the farm, heavy urea use leads to large, water-heavy bulbs that spoil quickly once harvested. Farmers around the equator also use a 'short-day' onion type, which grows very quickly but lacks the brown protective skins of Dutch-type 'longer-day' onions, which are drier and far more suitable for transport and months-long storage. Farmers rush the onions to the markets, hoping to avoid peak harvest and corresponding low prices. Lack of good workers at harvest time is estimated to be responsible for 5–10% of loss (RVO, 2021).

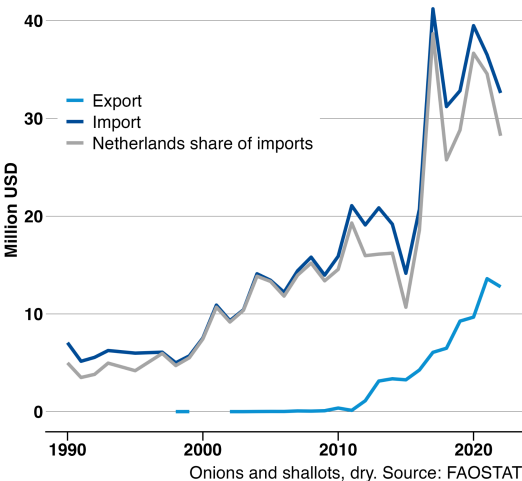
A lack of post-harvest infrastructure amplifies these spoilage issues. Production grew out of step with storage capacity, and in the absence of proper storage facilities, onions are often stored in open-air conditions. Supply is highly seasonal, with much of the harvest reaching the market over a short period (March–June), saturating distribution channels and causing a sharp fall in producer prices. One of the main ways in which onions are distributed – and which also show the crop's special status in Senegal – is through 'parcs d'oignons', or onion parks, which are open-air hubs for the collection, storage, and bulk sale of onions.

There is widespread use of uncertified "farm-saved" seeds—notably the *Violet de Galmi* variety—but these suffer from decreasing genetic quality, impacting amongst others the shelf life of the harvest crops. While domestic certification exists, adherence is voluntary. The national agricultural research institute (ISRA) produces certified seeds, but quality and quantity is insufficient. As a result, quality onion seeds are mainly imported, and hail mostly from the Netherlands.

#### 4.2.2 Senegal onion import dynamics

Overwhelmingly, Senegal's onion imports originate from the Netherlands, which has maintained a dominant market position for decades (Fig. 6). Since 2015, there is a strong increase in trade value, but not in traded volumes. A rising export flow is mostly from a few agribusinesses to the United Kingdom and Spain.

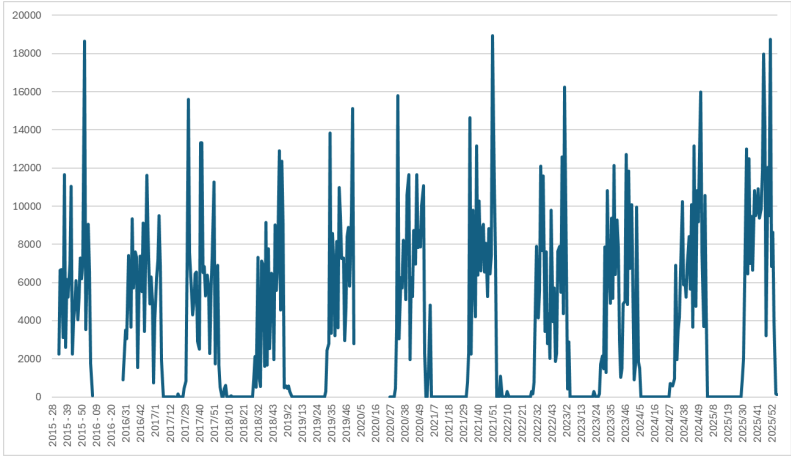
**Figure 6: Senegal onion trade**



A defining feature of the Senegalese onion (and potato) market is the government's regulation of import windows and volumes, setting price floors and ceilings, while also intervening in domestic distribution. The Senegalese government protects its farmers from foreign competition by a high import tariff and import quota system, combined with import bans during the period local produce enters the market and thus linking trade measures with agricultural production (Ecofin Agency, 2025c).

Dutch interviewees' claims that the Netherlands only supplies onions for six months at this market are supported by Dutch export data, showing exports to Senegal starting in weeks 28-30 (July) and ending in weeks 3-5 (January) of each year (see fig. 7 with export volume figures during 2016-2026). In Senegal, Dutch onions begin to be seen in the markets in August and continue to circulate through February. There is an overlap period of 10-15 days in which both imported and Senegalese onions are on the markets and when there is thus direct competition.

**Figure 7: Dutch exports of onions to Senegal, 2015–2026 (in metric tonnes, weekly data, HOA website)**



Dutch onions enter Senegalese markets thus primarily to address seasonal supply gaps, with Senegal’s low season corresponding with the Netherlands’ harvest season. Dutch onions are perceived as having superior storability, uniform quality, taste and competitive pricing. Even with imported onions being more expensive than local ones, consumers prefer the imported onions as they store much longer and spoil less. In the recent overlap window (ie, when both imported and locally produced onions are available; February 2026), a parc d’oignon trader in Dakar stated that consumers preferred the more expensive imported onions when given the choice.

The Senegalese import quota system is primarily managed by the Market Regulation Agency (ARM) through an administrative instrument known as the Declaration of Importation of Food Products (DIPA) provided by the Department of Domestic Trade. Each year, ARM collaborates with sector stakeholders to determine the overall volume of onions that will be allowed into the country during the open trade window, adjusting these targets based on national production estimates provided by the Directorate of Horticulture and the Senegal River Development Authority, and current domestic stock levels. Once the total allowable volume is established, individual importers must apply for permits to import a specific quota.

The distribution of these quotas has been linked to the importer's facilities for importation since 2017 and, crucially, the volume of locally produced onions they purchase. As such, import quotas are used to promote domestic onion production. Because of this quota system, import was perceived to be highly concentrated, with two importers rumoured to receive 70% of import quota. The quota is complemented by high tariff protection. Using ECOWAS's common external tariff, and classifying onions as a strategic consumer good, allows to set

the rate of 35% (RVO, 2021). Onion seeds were taxed at the much lower CET band of 5%. In addition, Senegal occasionally uses the 'Conjunctural Import Tax', which is a safeguard in the event of a sharp fall in world prices, to raise tariffs further.

#### 4.2.3 Senegal limits onion imports, with no trade retaliation

Senegal's policy of import limitation is part of an overall self-sufficiency drive, which translates for the food sector into 'food sovereignty'. Its 'Ministry of Agriculture and Rural Equipment', for example, changed in 2022 its name to the 'Ministry of Agriculture, *Food Sovereignty*, and Livestock', indicating their orientation to support self-sufficiency. In 2023, Senegal launched its national food sovereignty strategy (République du Sénégal, 2023), prodded by global shocks such as COVID-19 and the Russia-Ukraine war. The strategy's aim is to achieve full food and nutritional security by 2035 by prioritising local production over international trade flows, especially for rice, maize, wheat and vegetable oil. Onions are identified as a high-priority horticulture crop and 100% self-sufficiency is to be achieved from 2025 onwards through investments in storage, yields, and marketing.

In its Vision 2050, which carries the slogan '*...for a sovereign, prosperous and united nation*', this self-sufficiency ambition and transformation of the agricultural sector is linked with the country's overall development (Presidency of Senegal, 2025). In the national development strategy 2025-2029, agriculture will receive the largest share of public investments (Republique du Senegal, 2025). Among the flagship projects are the 'Agropoles', which are specialised processing zones, with the northern one prioritising onions.

Import limitation and substitution is thus used as a crucial tool for achieving Senegal's long-term national ambitions. Such protectionism has thus far not encountered headwinds from the Netherlands. A review of trade reporting, WTO documentation, and EU-West Africa trade relations reveal no documented evidence of reciprocal trade restrictions imposed on Senegal as a result of its seasonal onion import suspensions. Senegal's measures have consistently been temporary and seasonal in nature (Ecofin Agency, 2025a; 2026), and are framed domestically as market regulation tools designed to protect local producers during peak harvest periods rather than as discriminatory trade sanctions.

Within the broader trade law context, WTO rules and the ECOWAS Common external tariff framework discourage quantitative restrictions; however, temporary agricultural safeguard-type measures are commonly practiced across member states without automatically triggering formal disputes (WTO, 2018; ECOWAS, 2015). Despite periodic disruptions to Dutch onion exporters, there is no evidence

of retaliatory export bans, sanctions, or punitive tariffs imposed by the Netherlands or the European Union (RVO, 2021; WTO, 2018). Instead, available reporting suggests that Dutch exporters adjust shipment timing to align with Senegal's import windows rather than initiate formal trade disputes (Afrikamart, 2025).

The absence of reciprocal trade measures could be explained by Senegal's status as a developing country, the open trade window, and a tolerance for protectionism in development-sensitive sectors. First, Senegal's status as a developing country allows for more leeway in restricting imports, although applying this leeway often falls in a legal grey zone. Second, Senegal's import restrictions are seasonal and predictable, allowing exporters—particularly from the Netherlands—to adjust shipment schedules in advance, thereby reducing incentives for formal dispute escalation (RVO, 2021; see also Box 2 for Senegal's interventions in onion imports applied in 2025). Last, seasonal import restrictions could be tolerated as part of domestic agricultural policy in developing countries and development-sensitive trade relations.

### **Box 2: A timeline of government intervention in 2025**

Senegal's government maintains an interventionist market policy that regulates trade and domestic distribution in alignment with agricultural cycles to protect both Senegalese producers through import limitations and price floors, and consumers through price ceilings.

a) **Freeze on imports** (25 January 2025): In early 2025, Senegal's Agence de Régulation des Marchés (ARM), acting under the Ministry of Industry and Commerce, ordered a freeze on onion imports starting 25 January 2025. The measure aimed to protect domestic producers during the main harvest period, as authorities anticipated sufficient local supply to meet national demand for a period (Ecofin Agency, 2025a).

Key aspects:

- The freeze coincided with the start of domestic harvest flows into wholesale markets (Ecofin Agency, 2025a).
- Government officials and producer organisations framed the decision as a strategy to reduce import dependence and improve market access for Senegalese growers (Afrikamart, 2025).

b) **Lifting the import freeze** (19 September–31 December 2025): Later in 2025, once domestic stocks were seen as insufficient, the government authorised onion imports from 19 September to 31 December 2025 through quotas. This reopening targeted the lean supply season and sought to stabilise consumer markets ahead of the next production cycle (Ecofin Agency, 2025b). The timing illustrates the balancing act between producer protection and consumer price stability (Afrikamart, 2025).

c) **Domestic market restrictions** (April 2025): In April 2025, ARM temporarily suspended the movement and sale of onions between certain Senegalese production zones and wholesale markets following a domestic oversupply and price collapse. The measure aimed to prioritise marketing from more remote production zones (Ecofin Agency, 2025c). This intervention indicates that Senegal increasingly combines trade controls with internal market regulation tools to manage price (Ecofin Agency, 2025c).

d) **Freeze on imports** (January 2026): At the beginning of the 2025–2026 agricultural marketing season, Senegal reaffirmed its suspension of onion (and potato) imports around mid-January 2026 (Ecofin Agency, 2026).

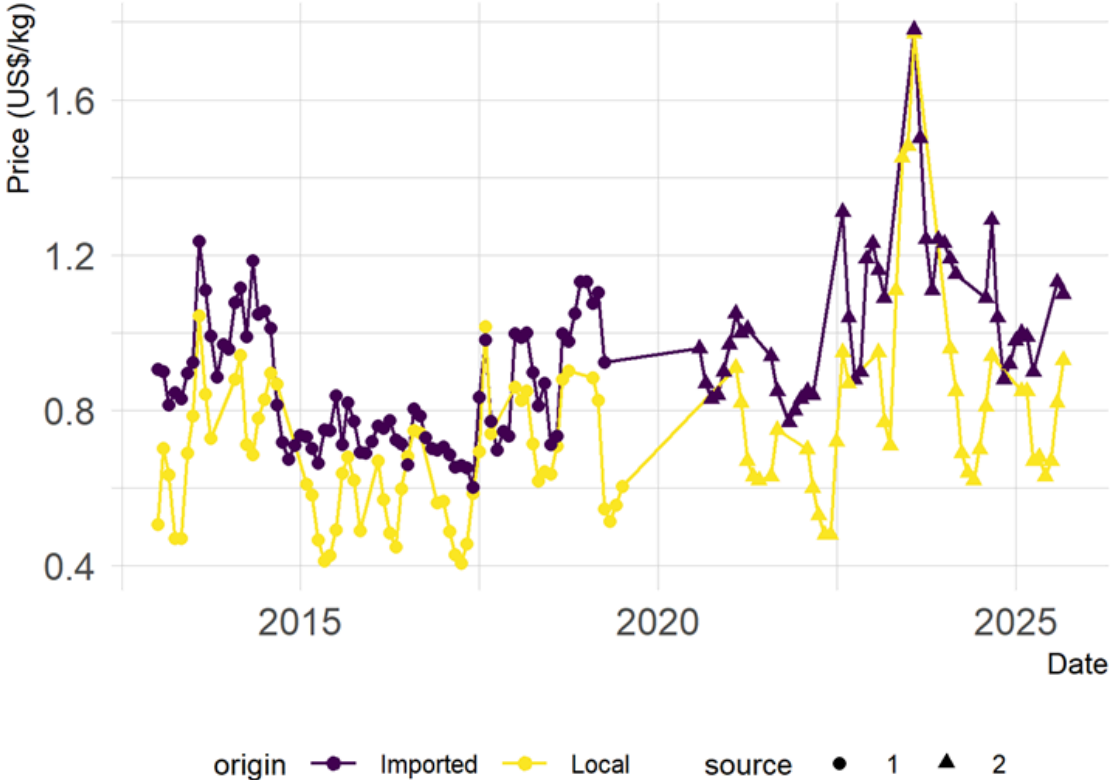
## 4.3 Structural impacts of Dutch onions exports to Senegal

### 4.3.1 Data analysis of structural impacts in Senegal

The data reveals that importing Dutch onions does not drive down the prices that local Senegalese farmers receive for their crops. In fact, when the volume of Dutch imports increases, local onion prices actually rise slightly at the same time. This positive relationship happens because imports are fundamentally driven by local demand and a low supply of domestic onions. Therefore, imports act to fill a market gap rather than directly competing with or undercutting local production.

Furthermore, there is no evidence to suggest that Dutch exporters artificially lower their prices to flood the market and hurt local farmers. The analysis shows that lower Dutch export prices do not lead to higher volumes of imports entering Senegal. Instead, the data indicates that when demand is high, both the volume of imported onions and the price of those Dutch exports tend to rise together. This means there is no statistical support for the idea that Dutch exports expand by slashing prices to put local producers out of business.

**Figure 8: Retail onion prices in Senegal**



Sources: *Direction de l'Horticulture (1); FAO FPMA (2)*

Finally, while the prices of local and imported onions do influence each other in the short term, any pressure on local prices disappears very quickly. The data shows a strong short-term link where a rise in imported prices corresponds to a rise in local prices, but the market corrects these price differences rapidly, eliminating about 71% of the imbalance within a single month. Because Dutch onions mostly arrive during the season when local Senegalese onions are scarce, these price changes are short-lived and do not cause prolonged distortions or long-term financial harm to local producers.

4.3.2 Why are there no structural impacts of Dutch onion exports to Senegal?

**1. Current onion trade is complementary, rather than competition**

There is no direct competition between Dutch and Senegalese onions as the Senegalese government actively restricts the simultaneous presence of onions from both countries to be present in the markets through import limitations in volume and time. Senegalese farmers cannot supply onions year-round due to poor farm practices, seasonal production windows, and poor storage - there are almost no senegalese onions anymore on the market when Dutch onions come in.

Representatives from producer organisations (CNCR, FONGS and FPMN) noted that while the simultaneous presence of Dutch and Senegalese onions would constitute unfair competition—due to disparities in technology, infrastructure, and institutional support—the current seasonal separation effectively avoids such unfair competition. Because Dutch onions consistently command a higher price point than local varieties, they do not undercut domestic production; this is further evidenced by the robust growth in Senegalese onion output – but not import quantities – over the past decade. This implies exports from the Netherlands are much more of a complement to local production than a competitor.

## **2. Using trade measures for agricultural development**

Some of the discussion around EU–Africa trade assumes that African countries have little room to steer trade policy and to pursue their trade and development policies. In the case of Senegal’ onion trade regime trade ban measures are officially prohibited under WTO rules but in practice were tolerated. On the back of a drive for food self-sufficiency, Senegal wants to further reduce imports in favour of local production. Until 2025, in practice, however, this pursuit of self-sufficiency is primarily enforced through administrative trade barriers rather than through structural investments in the agricultural sector towards quality, productivity and long-term competitiveness. Senegal’s agricultural expenditure as a share of the total declined for the last ten years from 12% in 2014 to 3.2% in 2024 (ReSAKKS, 2026). While new agriculture investments ambitions are announced, Senegal is in 2026 in the midst of a severe public debt crisis, putting strain on the fiscal space for large public investments (Ndiaye & Kessler, 2026).

## **3. Trade of onion seeds helps local production**

While often framed in terms of competition, trade also can provide the tools to enhance local production. Better seeds, for example, are necessary for the sector’s growth. In the Senegalese onion sector, Dutch public and private actors are working to improve the quality and quantity of Senegalese onion production, including by supplying high-quality Dutch onion seeds. On storage, Dutch investors have backed onion and potato storage ventures like Agro Expedition in Senegal, while firms such as Fero Design develop innovative cooling solutions. In 2026, the Dutch will organise an innovation mission to Abidjan and Dakar, focused on the horticultural seed sector (RVO, 2026). As such, the Netherlands is not only the origin of imported onions, but also a source for improving local production and storage.

A key element remains that Senegalese onion production is up considerably, showing an active and relatively successful private sector. There is widespread expectation that imports indeed will become less and less as post-harvest losses

decrease. The Senegalese potato sector, though smaller, serves as a blueprint for the onion industry; its import window has been limited to a single month to prioritise domestic production. In all, current winners of the government's approach are onion producers, which are shielded from higher-quality imported onions, with the disadvantages – in terms of reduced choice – spread to onion consumers, which are numerous. More investments in storage could further support producers. A Germany-backed \$307 million storage investment for onions and potatoes was launched in 2026, highlighting possible alternative routes for achieving the debt-strapped government's ambitions (Ecofin Agency, 2025d). Under the current government strategy, when local onions are available year-round, imports would be further brought down.

## **5. Case study 2: Potatoes to Côte d'Ivoire**

### **5.1 Dutch potato exports in an international context**

The Netherlands plays a leading, strategic role in the global potato sector, even though, in terms of volume it does not belong to the very largest producers (such as China or India). Global potato production in 2024 reached an approximated 390 million tonnes (FAOSTAT, 2026), underscoring the crop's continued importance in global food systems. Harvested area expanded slightly to 17.08 million hectares, with average yields rising marginally to 22.86 tonnes/hectare (Pieterse, 2026). Despite large production volumes, international trade in potatoes remains relatively thin. This limited trade exposure means potato prices are primarily determined by domestic supply and demand conditions rather than international commodity exchanges.

Three types of potatoes are grown in the Netherlands: seed potatoes (1.6 million tonnes on approximately 40,000 hectares), ware potatoes (4.2 million tonnes on 83,000 hectares) and starch potatoes (1.7 million tonnes on 33,000 hectares, CBS, 2025 data). The Netherlands primarily exports seed potatoes (825,000 tonnes in 2024), 60% of which goes to other EU countries. In Africa, Algeria, Egypt, and Morocco are the largest buyers (together 140,000 tonnes of the 162,000 tonnes). Exports of ware potatoes (360,000 tonnes in 2024) are also primarily destined for other EU countries (70%), with only about 15% shipped to Africa. Senegal and Côte d'Ivoire are major destinations of Dutch exports of ware potatoes (see also [NAO.nl/marktinformatie](https://nao.nl/marktinformatie)).

Dutch exports of ware potatoes (sold as fresh potatoes but also to frites and chips factories) reach many destinations where export volumes can vary annually. This indicates that the Dutch potato chain is well organised and able to respond

quickly when countries call for imports because domestic production is disappointing or where other exporters are missing out. Africa is a growing market for ware potatoes. Dutch ware potatoes are highly regarded there for their quality and logistical efficiency. Exports to Africa depend on market space (market demand, often supplementing domestic production), import regulations (some countries apply tariffs as well as periods of the year when imports are prohibited), and transportation costs. Transport to African markets takes place by ship, in refrigerated containers or ship's holds, and after arrival in a hot equatorial country, they cannot be stored for long outside of cooling facilities. In general, ware potatoes imported from the Netherlands will not remain on the local market for very long due to their limited shelf life.

The Netherlands has a number of specialised seed potato companies that are strongly export-oriented and global players. In Africa, these companies are primarily active in the northern countries (Algeria, Egypt, Morocco) and in countries like Kenya - West Africa (with the exception of Senegal) hardly imports any seed potatoes (NAO.nl/marktinfo). Interviewees emphasise that seed potatoes serve as the basic material for local production. These seed potatoes are not sold directly to farmers, but to local propagators who require multiple production or propagation rounds to make them affordable for smallholder farmers. Hence, Dutch exports do not only deliver a final product, but also a means of production that generates local production. Due to the multiplier effect - 1 kg of seed potatoes yields approximately 5 kg of propagated seed potatoes, which then yields dozens of kilos of table potatoes - a small volume of 100 kg imported seed potatoes may equal more than 2,500 kg of local table potatoes. In this way, almost all value generated is local for local, which indicates that with relatively very small imports of good starting material, the local economic impact can be very large.

The Netherlands enjoys an unprecedentedly strong position thanks to its modern (seed) potato varieties and cultivation, market (organisation) expertise and logistical efficiency. Dutch seed potato companies are also active in international supply chain development, often through partnerships or joint ventures. For example, they participate in supply chain programs, often with ministries and researchers, providing knowledge, training, varieties, and guidance to local propagators and farmers, thus encouraging local-for-local production. However, experience shows that supply chain development takes years and requires extensive training, infrastructure (including cooling facilities), and collaboration.

## 5.2 Ivorian imports of Dutch potatoes

### 5.2.1 Potato consumption, imports and production

Côte d'Ivoire is a lower-middle income country (2,720 \$/capita in 2024) in West Africa, with a population of almost 32 million (2024; World Bank Data, 2026). Abidjan is the largest city, with 6.5 million people; its second-largest city, Bouaké, is around 700,000. The country is described as the 'locomotive' of Francophone West Africa as it maintained high growth rates over the last few years while neighbouring countries struggled.

Côte d'Ivoire's economic development has largely been built on agriculture. The country is a net agricultural exporter, by far: it's the world's largest producer of cocoa (40% of the world's output), has become the world's leading producer and exporter of raw cashew nuts, and remains the largest exporter of rubber, palm oil, bananas, pineapples and copra in Africa. As a result, its agricultural export-to-import ratio is 3.4 (ReSAKKS, 2026), meaning it exports more than three times the monetary value that it imports. The country is also self-sufficient in a variety of staple foods – e.g. maize, sorghum, millet, yam, cassava, plantain – with growing exports to the sub-region, the only exception being rice for which it imports about half of its needs.

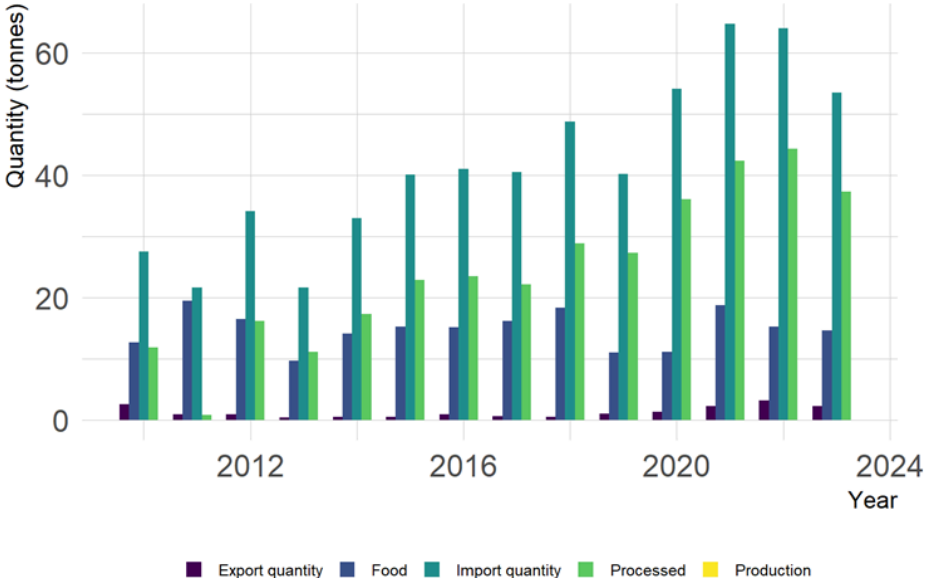
The sector contributes to about 22% of the GDP and is the main source of foreign exchange earnings. In addition, a considerable share of the manufacturing and transport sectors depends on agriculture. The sector provides employment to about 45% of the working population and is smallholder dominated, who farm 95% of cultivated land. It is expected that the agricultural sector still is and will remain a main provider of employment in the future (World Bank, 2020).

Côte d'Ivoire's potato sector is characterised by a low consumption, a quasi non-existing domestic production, and weak government support. Per capita consumption of ware potatoes was 0.5 kg in 2023, showing potatoes as a niche consumer product. While per capita potato consumption looks stagnant, a growing population – Côte d'Ivoire's population grew by more than 25% in the last ten years with 7.5 million people – translates into a rising volume of consumed potatoes. In addition, urban areas have higher potato consumption; Abidjanais(e)s consume around 1.2 kg (AISA, 2022).

More potato – and especially fries – consumption is part of a diet and food environment shift (PND 2021-2025). Urbanisation and lifestyle change means more out-of-home catering, delivery services, and modern distribution channels (MARIGO, 2025). In particular, there is a rise of out-of-home catering such as

(international) fast-food outlets and restaurants, large-scale distribution and modern channels with quality standards (grading, visual appearance). Lastly, there are small-and-medium processors that locally produce crisps and chips, which is easier with the imported variety and quality (Ceresco, 2018; EUCORD, 2024).

**Figure 9: Ivorian potato consumption, trade and production**



Source: FAOSTAT Supply Utilization Accounts

Domestic production is virtually non-existent. Official figures show less than 100 tonnes per year, or a few hectares of production. While this may be an undercounting, there is widespread agreement that domestic production is, and almost always has been<sup>5</sup>, very small. As a result, rising domestic demand has been met completely by imports, mostly from the Netherlands. But change may be afoot: while it is still in an early phase, the potato producer association (APPT-CI) seeks to structure the sector more, and has recently made an agreement with ANADER, the country’s extension services, to start considering the sector more and providing support.

5.2.2 Potato import dynamics

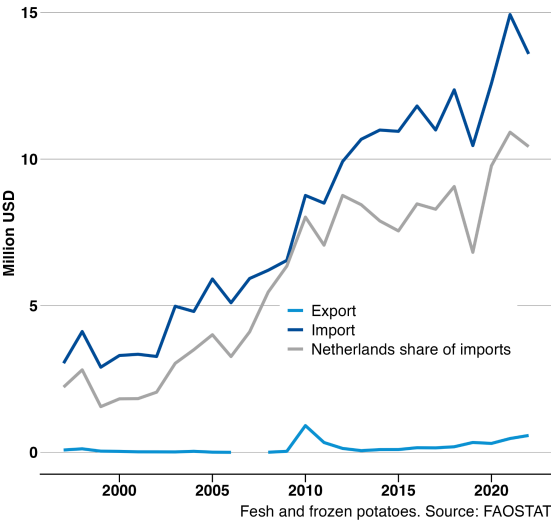
A defining feature of the Ivorian potato sector is its near-total dependence on imports. The Netherlands has emerged as the dominant supplier, maintaining a commanding market position for decades. In 2024, Dutch exporters provided roughly \$13 million of the country’s \$17.4 million in total potato imports. Dutch

<sup>5</sup> Potato cultivation in Côte d’Ivoire began in the Touba region in 1941 to counter WWII-related import shortages (GUDE-PME, 2023). However, state-led attempts to industrialise the value chain since the 1970s have largely fallen short of expectations.

potatoes enter the Ivorian market virtually all as ware potatoes and act primarily to satisfy a structural deficit that local producers have been unable to bridge.

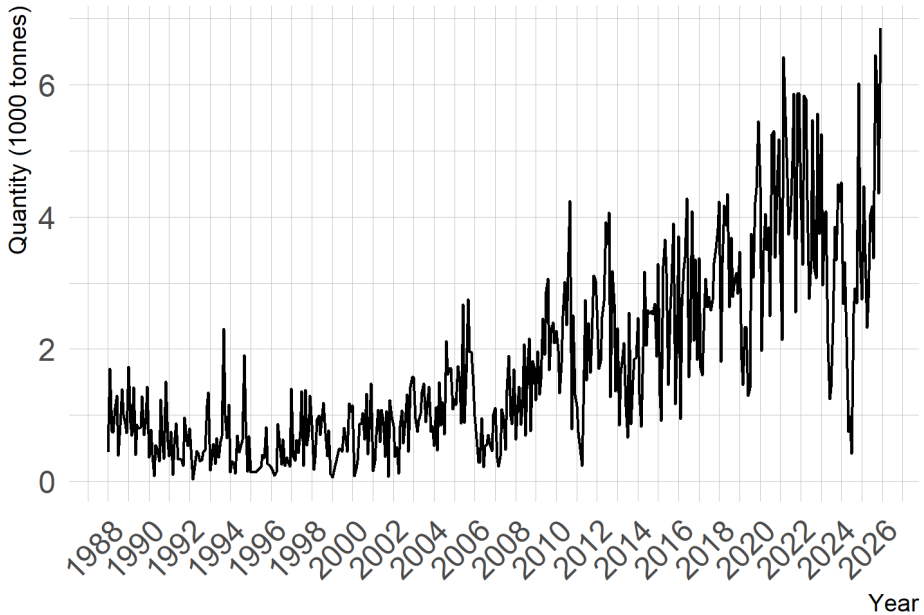
While import volumes fluctuated slightly reaching approximately 55,000 tonnes in 2021–2022 and roughly 40,000 tonnes in 2023, the Netherlands consistently accounts for 70–80% of the total market share. Although the Netherlands is the primary partner, Côte d'Ivoire also imports from Egypt, Morocco, and Mali in 2023, and from France and Belgium in 2022 (OEC, 2026). Notably, Côte d'Ivoire functions overwhelmingly as an importing destination, with few recorded (re-)exports.

**Figure 10: Côte d'Ivoire potato trade**



The primary trade instrument governing import flows is the ECOWAS Common External Tariff (CET). Fresh potatoes are classified within a high-priority band, attracting a 20% customs duty, though this can rise to 35% as potatoes are part of the specific ECOWAS protections for strategic goods. In contrast, potato seeds - intended to encourage local production - face a significantly lower tariff of only 5%.

**Figure II: Monthly Dutch potato exports to Côte d'Ivoire show no clear seasonal pattern**



Source: EUROSTAT

Compared to potatoes from neighboring countries like Burkina Faso or Niger, Dutch potatoes are perceived by Ivorian wholesalers and consumers as superior in shelf life, uniformity, and consistency (FreshPlaza, 2024; Agroberichten Buitenland, 2024). Consequently, these imports enjoy a dominant position within formal wholesale markets and modern retail channels. Dutch, Belgian and French potatoes are the preferred type to make fries or in a stew, which are the main ways to consume potatoes in Côte d'Ivoire (IndexBox, 2024; FreshPlaza, 2024; Ceresco, 2018).

**5.2.3 Côte d'Ivoire is a successful agricultural producer and exporter, but not in potatoes**

Côte d'Ivoire’s agricultural policy is largely driven by the country’s elite and political focus on high-value "industrial" commodities such as cocoa, cashew, and mango, which attract much government attention. Its cocoa market board ‘Conseil du Café-Cacao’, for example, is a state regulatory body that oversees the sector, sets farmgate prices, organises distribution and exports, and should ensure the sector’s sustainable development, but has a controversial track record of governance.

Northern Côte d'Ivoire enjoys favorable conditions for potato production due to the coolness during dry seasons, available irrigation, suitable soil, interested producers, and proximity to markets such as Korhogo (EUCord, 2024). Despite

poor road connections, the western region of Tonkpi also enjoys favorable conditions. However, particularly in the north of the country, a great deal of cotton and cashew nuts are cultivated, which offer higher profitability. This economic preference is reinforced by a lack of government support programs for potato cultivation. While Ivorian farmers are experienced with sweet potatoes, they have little history with ware potatoes—a gap that reflects the broader developmental lag of the nation's horticultural sector. This may have gendered impacts, as cash crops are more dominated by men, and domestic-market oriented crops more by women.

Start-up costs for a potato chain are high. Interviews with Dutch companies indicate that for a profitable potato chain one needs reliable local propagators, with cold storage, ventilation, and expertise; good infrastructure, such as cooling and irrigation; and, professional buyers (of fresh potatoes or french fry factories) so that farmers have sales security. Moreover, farmers need training, guidance, and management skills to realise yields (proper agricultural practices, which is a combination of Seed, environment, and management). It takes years to build an efficiently functioning potato chain.

Although potential potato yields are estimated at a respectable 15 to 20 tonnes per hectare with adapted varieties (MARIGO, 2025), the country has a number of major bottlenecks to overcome to establish an economically viable potato cultivation and supply chain. While the National Development Plan (PND) 2021–2025 expresses a clear political will to diversify the economy through food crops, implementation lags. A result of this is little producer training and underfunded national research.

Ivorian potato producers face high costs. About 40–60% of total costs are driven by imported seeds, fertilisers, and chemicals, all subject to volatile exchange rates and transport fees (GUDE-PME, 2024). These high costs are exacerbated by a lack of mechanisation – which increases labour requirements – and inadequate storage facilities for the country's tropical climate. In humid regions like Tonkpi, the combination of heat and humidity creates intense fungal pressure, potentially causing 100% crop loss without expensive fungicide treatments. Lastly, the sector lacks "tropicalised" varieties suited for local rainfall. Although Côte d'Ivoire has seed certification standards, it is rarely applied to local, informal seed channels (MARIGO, 2025).

### 5.3 Quantitative analysis of structural impacts in Côte d'Ivoire

There is limited data available on prices of ware potatoes in Côte d'Ivoire; price series that are available either span no more than three years or are unofficial, with both kinds having gaps where no data is available for multiple consecutive months. This paucity of data reflects the limited role potatoes play in Ivorian diets, making it unimportant for price indices. The data on import quantities and prices show that when prices for Dutch ware potatoes are low, larger quantities are imported. This finding is unsurprising, as it reflects a downwards sloping demand curve (where lower prices lead to more demand), but it could potentially indicate Dutch exports are driving down local prices and outcompete local growers. There is, however, no evidence of this happening. The price series that are available are stable and gently rising, which would not cause problems for local growers. However, longer and higher-quality time series would be needed to formally test this, and assess whether potato imports have a price-depressing effect on local markets. Without such data, it is difficult to draw firm conclusions from the findings on the link between quantity of imports and their prices.

### 5.4 Why are there no structural impacts of Dutch potato exports to Côte d'Ivoire?

#### **1. Current potato trade is complementary, rather than competition**

There is no direct competition between imported Dutch and Ivorian ware potatoes as the domestic sector is currently unable to meet the consistent demand of urban consumers. This is because the sector (potato cultivation, trade, and processing) is small and bears the characteristics of an early stage of development.

Consequently, the imported ware potatoes do not appear to pose a threat to local livelihoods—after all, there are hardly any specialised potato growers in the country. The potato producers' association (APPT-CI<sup>6</sup>) argues that they do not consider Dutch imports (yet) to be competition, as setting up domestic production is still in an early stage. A domestic seed potato sector is in an even more rudimentary stage. And just as with the Senegalese onion model, Ivorian farmers cannot yet guarantee a year-round supply due to limited technical capacity, seasonal production periods, and a lack of specialised storage infrastructure. Imports of ware potatoes thus fill a structural gap.

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<sup>6</sup> Association des Producteurs de Pomme de Terre de Côte d'Ivoire.

## **2. Côte d'Ivoire is a successful agricultural producer and exporter, but not in potatoes**

There are no indications that Dutch exports limit the development of domestic potato production. Côte d'Ivoire is highly successful in other agricultural crops; the reason for a lagging potato production seems to stem from potato's high startup costs, limited profitability – especially when considering seed costs – low government support, and less-than-ideal growing conditions. Trade tools could be a way by which the government can create a more favourable environment for domestic production. After all, Côte d'Ivoire could increase tariffs on potatoes or use other trade tools – like done by Senegal – that could support Ivorian farmers. But restricting the flow of (Dutch) potatoes is unlikely to be a game changer: Dutch exports could be partly replaced by ones from France and Belgium, neighbouring countries, or Morocco and Egypt. Unlike trade with the EU, imports from within the ECOWAS bloc could be more diplomatically challenging to restrict supply from neighboring producers. AfCFTA implementation could as well limit the restrictions laid on imports from Morocco and Egypt.

## **3. Trade of potato seeds crucial for success local production**

Seed potatoes are necessary to start profitable potato production, and Côte d'Ivoire is currently facing a shortage of high-quality seed potatoes. These are imported from the Netherlands but yet in very modest volumes corresponding with its low potato production; approximately 300–400 tons. In recent years (note that Côte d'Ivoire imported 500 tons from Egypt in 2024, where it previously imported much less). The presence of high-quality imports has also created modernisation incentives within the domestic sector. Familiarisation with Dutch production standards and supply chain organisation has sparked interest in improved seed potato varieties, better agronomic practices, and improved post-harvest management. In this context, cooperation with Dutch stakeholders has emerged as a potential avenue for technology transfer, knowledge exchange, and investment in productivity-enhancing systems (Agroberichten Buitenland, 2024). The Netherlands supports knowledge transfer and training, such as through the HortIvoire project, and is exploring support for northern Côte d'Ivoire's potato and onion production through the HortiNord programme.

## 6. Conclusion on structural impacts of Dutch food exports

This study analyses the structural impact of Dutch exports on food markets and small farmers in fragile (vulnerable) countries. The analysis shows that a limited number of African countries rely heavily on the Netherlands for a small number of specific goods. Two potential cases of structural impacts were analysed in detail: Dutch exports of onions to Senegal and Dutch potato exports to Côte d'Ivoire. The analyses—based on interviews in the Netherlands, Senegal, and Côte d'Ivoire, as well as data and statistical (econometric) analyses—indicate no evidence of a structural impact.

In both case studies, it is concluded that the import flows are primarily complementary to local production and not competitive, a perspective also shared with Senegalese and Ivorian producer associations. This also applies to seed onions and seed potatoes from the Netherlands: these can be considered essential inputs for strengthening the competitiveness of the sector in both African countries.

The Senegalese onion value chain is at a turning point. The progress of local production is real and substantial and underpinned by a proactive government policy that uses strict import regulations—such as seasonal bans that allow imports only when there is no local supply—to protect, support and improve domestic production. As such, Senegal uses trade measures to advance its perspective on agricultural development, which is generally prohibited but unchallenged by the EU under current international (ie, WTO) trade rules. However, such tolerance can also run out, so agricultural investments also have to play their part: Senegal's transition from partial import substitution to onion self-sufficiency will depend above all on the ability to solve problems of storage, seeds, quality, and market organisation.

Dutch imports are no longer only a matter of volume; they also reveal the standards of quality, reliability, and financing that the local system will have to progressively internalise. In the short term, they will probably continue to play a seasonal adjustment role. In the medium term, their place could shrink if the announced investments in infrastructure, research, and regulation materialise. Dutch imports play a dual role here. They fill seasonal deficits, but they also serve as an implicit benchmark for commercial standards that the Senegalese value chain must gradually internalise. The strategic question is therefore not simply to restrict imports, but to reduce the competitiveness gaps that make them attractive.

The potato sector in Côte d'Ivoire is near-completely dependent on imports, with Dutch ware potatoes filling in a gap that domestic production does not meet, but also helping sustain an emerging consumer market. In the short term, Dutch potatoes are likely to continue supplying Ivorian markets and be the 'benchmark' for other competitors – being imported or produced locally. As in Senegal, Dutch traders provide the dual role of trading the final product and an essential input – in the form of seed onions and seed potatoes – for domestic production.

In Côte d'Ivoire, domestic sector growth is less about protecting existing producers but rather supporting the creation of new ones. There is a renewed interest in expanding domestic production through a partnership with public agricultural institutes and those interested in potato production. In the medium-to-long term, domestic potato production could increase if several input, production, finance and storage issues could be overcome.

Trade restrictions might play a smaller role in supporting such domestic production. Côte d'Ivoire's potato market is highly susceptible to substitution, where importers can pivot from Dutch importers to other global ones. As a member of ECOWAS, Côte d'Ivoire also has less leeway to protect their markets from neighbours. Support, then, should perhaps come more from investments in domestic production rather than through trade protectionism.

These case studies do not rule out the possibility that Dutch exports have structural impacts on vulnerable countries in other instances, though it is likely that such impacts would be at most very limited. The analysis of the effects of a specific import on local markets is complex and determined by the context, such as demand trends and consumer preferences, and substitution options that, for farmers, are also determined by agroecological conditions, among other factors. In addition, government policy (whether or not it supports local production) is also an important factor as the case of Senegal certainly demonstrates. However, both cases were chosen because of the significant share that Dutch exports hold in the import of the case products. For the export flows not examined in detail, the situation holds that they represent only a limited share of an African country's imports. This makes it very plausible to assume that the impact of the Dutch export stream on local markets is absent or, at most, very limited.

## Annexes

### Case study selection overview table

**Table A.1. Selected potential case studies overview.**

Country	Item	World Bank income status	NLD item trade value (\$million)	NLD share of item import market (%)	Potential disruption	Fragility*	Secondary data	NLD development relationship (on <a href="#">MFTD country priority list</a> )
Senegal	Onions	lower-middle	\$33.3	71%	High	Medium	High	Yes
Côte d'Ivoire	Potatoes	Lower-middle	\$10.0	84%	High	Medium	High	Yes
Gabon	Milk powders	Upper-middle	\$16.3	48%	Medium	Medium	High	No
Ghana	Poultry	Lower-middle	\$6.0	46%	Low	Medium	High	Yes
Democratic Republic of the Congo	Milk powders	Low	\$6.4	36.4%	High	High	Low	No
Uganda	Milk powders	Low	\$1.6	60%	Low	Medium	high	No

*Colour grading: Green: very good/relevant; yellow: relevant; orange: less relevant; red: problematic for attaining the research goals.*

\*Fragility is defined as 'supply chain fragility', meaning that farmers and other actors in the chain are vulnerable due to their small scale of operations, limited market linkages, and import competition

## Reasons for non-selection

Milk and cream to Gabon involves a substantial annual trade flow (\$16.3 million) and almost half of the import share was Dutch. The country's underdeveloped agricultural base suggests that Dutch imports still exercise significant influence over local market dynamics. However, Gabon's status as an upper-middle-income nation mitigates the risk of structural impacts.

The cases of poultry to Ghana and milk powders to the DRC and Uganda suffer from at least one problematic factor for attaining the research goals.

Poultry exports from the Netherlands to Ghana comprise two primary categories: poultry meat and live birds. Imports of poultry meat from the Netherlands are valued at \$8.8 million on average in 2020–22, representing less than 10% of Ghana's total import value of the commodity.<sup>7</sup> Conversely, in the live poultry sector, Dutch origins account for nearly 50% of imports, worth \$6 million. As the total live poultry import market is a relatively small \$14 million—modest for a population of 36 million—this trade appears linked to poultry genetics (e.g., the Netherlands has with Hendrix Genetics a leading genetics firm), a niche that presents low potential for competition with domestic producers.

Milk powder to the Democratic Republic of the Congo is promising due to its alignment with the research's fragility focus: it involves a low-income country with a high potential for market disruption, given that Dutch milk powders account for approximately a third of its import volume. Its problematic factor is the availability and reliability of secondary data. Even though the country possesses a substantial cattle population of approximately 1.7 million head, official statistics record very low domestic milk production (around 9.7 million litres). This large discrepancy suggests that official figures fail to capture a vast, informal production sector. When higher milk production figures are mentioned, they come from questionable source data. What seems more accepted is that the DRC's main milk producing regions are in North and South Kivu, in the eastern DRC, and far from the likely main Dutch powder consumption area, the capital Kinshasa located in the West. The challenge, therefore, is twofold: to overcome the doubtful official data and move beyond anecdotal evidence to accurately pinpoint the structural impacts on the local value chain, and to be able to research the potentially impacted smallholder farmers, who may be inaccessible.

The case of Dutch milk powder exports to Uganda seems to have limited relevance to the study's scope due to the minimal scale of imports relative to robust local production. Specifically, the total annual milk import into Uganda is only approximately 4,000 tonnes, and powder 1,600 tonnes, while the domestic fresh milk market produces a volume of around 3 million tonnes, thus limiting the potential for external trade flows to cause structural market disruption.

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<sup>7</sup> Poultry trade between the Netherlands and Ghana suffers from strong diverging trade data: the Netherlands reports an average of \$78 million of chicken meat exports to Ghana between 2020–22, while Ghana reports only \$8.8 million of imports from the Netherlands. While the reasons for such discrepancies are discussed in footnote 1, the scale of the discrepancy observed in the poultry trade with Ghana is exceptional.

## Quantitative methodology

### Research Questions

The proposed quantitative analysis investigates the following questions:

1. **Import Volumes** → **Local Prices**: How does volume imports from NL affect local market and off-farm prices?
2. **Import Prices** → **Import Volumes**: How do Dutch import prices affect import volumes?
3. **Import Prices** → **Local Prices**: What is the relationship between Dutch import prices and local market prices (differentiated in urban and rural market prices)?
4. **Regional Heterogeneity**: Do these relationships differ between producing and net consuming regions in the importing country?

### Scope

Country	Product	Time Period	Regional Coverage
Senegal	Onions	10 years*	TBD*
Côte d'Ivoire	Potatoes	10 years*	TBD*

\* Subject to data availability

### Q1 Volume-Price

Hypothesis A: **Higher import volumes from the Netherlands are associated with lower local retail prices.**

Hypothesis A: **Higher import volumes from the Netherlands are associated with lower local farm-gate prices.**

Approach: we estimate a time-series regression of import volumes on local prices:

$$P_{local,t} = \alpha + \beta_1 V_{import,t} + \beta_2 V_{import,t-1} + \gamma X_t + \varepsilon_t$$

Where:

- $P_{local,t}$  = local price at time t
- $V_{import,t}$  = import volume at time t
- $X_t$  = controls (seasonality, local production, exchange rates)

The exact specification will depend on data availability, and considerations with respect to tests for stationarity (Augmented Dickey-Fuller test/Kwiatkowski–Phillips–Schmidt–Shin test), cointegration (if non-stationary), and appropriate lag structure (Akaike Information Criterion/Bayesian Information Criterion). Adjustments for seasonality are also like to be necessary.

If we fail to reject the null hypothesis, i.e. higher import volumes are not associated with lower local prices, this may suggest that Dutch exports do not compete directly with local production. However, any estimates are likely to be biased due to endogeneity and interpretation of any coefficients should be done with caution.

## Q2 Price-Volume

Hypothesis: **Lower Dutch export prices lead to higher import volumes (demand elasticity).**

Approach: we estimate import demand elasticity:

$$\ln(V_{import,t}) = \alpha + \beta \ln(P_{import,t}) + \gamma X_t + \varepsilon_t$$

To get around the endogeneity of prices, we may choose to use production costs in the Netherlands as an instrument for export prices.

If we fail to reject the null hypothesis, this suggests that local markets do not respond strongly to price changes in Dutch exports, again suggesting limited competition with local production.

## Q3 Price Transmission

Hypothesis: **Dutch export prices are transmitted to local markets (potentially with lags).**

We analyse price transmission using standard tools:

$$P_{local,t} = \alpha + \beta P_{import,t} + \sum_{k=1}^K \gamma_k P_{import,t-k} + \varepsilon_t$$

Or error correction model if cointegrated:

$$\Delta P_{local,t} = \alpha + \beta \Delta P_{import,t} + \lambda (P_{local,t-1} - \theta P_{import,t-1}) + \varepsilon_t$$

We will test the appropriate model based on stationarity and cointegration tests, and adapt for data availability

If we fail to reject the null hypothesis, this suggests that local prices are not influenced by Dutch export prices, indicating limited market integration.

## Interviews

Interviews were conducted with a series of organisations and actors in the chain (farmers, traders etc). In the Netherlands, we spoke with the Holland Onion Association, the Dutch Potato Organisation, an onion trader/packaging company, a potato trader, and a business developer/trader for seed potatoes. In Senegal, we conducted interviews with the market regulation agency, the Directorate of Horticulture from the Ministry of Agriculture, researchers from the national agricultural research institute (ISRA) and several universities, and producer associations such as the CNCR, FPMN, and FONGS. We also spoke with representatives from trader and consumer unions, a cold storage association, and individual traders operating in local onion parks. In Côte d'Ivoire, we spoke with the Ministry of Agriculture, the national rural development agency, and the interprofessional research fund. Interviews were also conducted with the potato producer association (APPT-CI), several importers and wholesalers, and market sellers. The Dutch Embassy was interviewed in both countries.

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