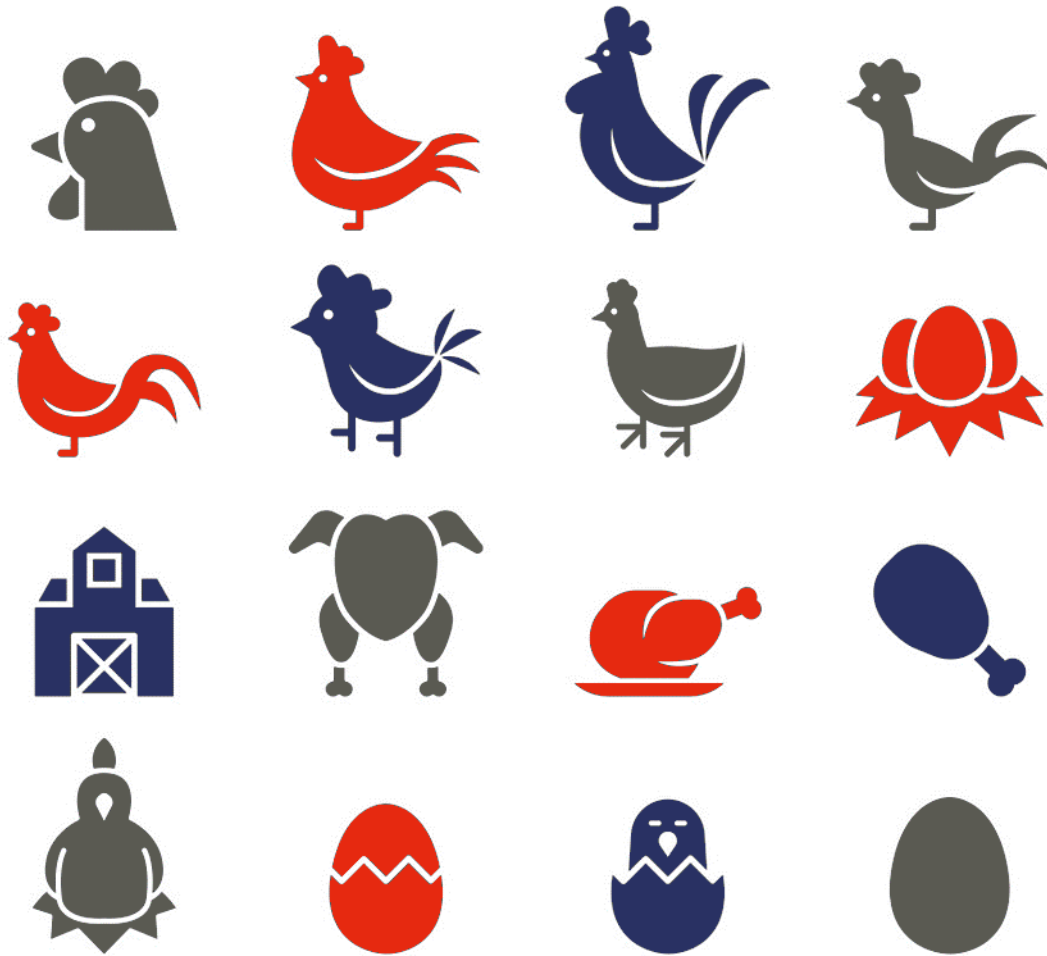


Poultry Sector Morocco: Opportunity Identification Study



03-2022

Preface

This study gives an insight in recent developments and prospects in the Moroccan poultry value chain. The Government policy "*Generation Green 2020-2030*" aims at further improvements and sustainability in this sector, offering opportunities for modern technologies and innovations.

NABC has performed this study on request of the Agricultural Office of the Embassy of the Kingdom of the Netherlands in Rabat, Morocco and with support of the Netherlands Enterprise Agency (RVO) in The Hague, The Netherlands.

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The Netherlands Embassy, RVO and NABC organise a webinar to present this report on the 14th of April 2022. Contact NABC for more details or visit www.nabc.nl to register.

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1. Introduction

Morocco's poultry sector has pockets of modern, high-capacity and competitive companies with export ambitions. However, the average Moroccan consumer still depends on small-scale, under-capitalised, unregulated and inefficient poultry and egg production. Increased urbanisation and consequent uptake in chicken consumption puts pressure on these systems. This results in the familiar development process of backyard operations evolving to small and medium scale integrations through local investments and the arrival of large-scale industrial farms. Depending on where you look, the Moroccan poultry sector is either traditional, small-scale and local, or modern, intensive and globalised. For the Moroccan government this poses the natural challenge of modernisation; namely that the intensifying agriculture results in higher productivity but renders the smallholder operations many families depend upon unprofitable. Nonetheless, the modernization of the poultry sector is widely desired and possibly inevitable.

The consumption of poultry products in Morocco has grown significantly over the last few years. From 2010 to 2020 the consumption of meat increased by 11.1% and the egg consumption rose to 177 eggs per capita per year. The increased consumption is also visible in the achieved sector turnover, rising from MDA 24 billion (EU 2,25 billion) in 2010 to MDA 34 billion (EU 3,18 billion) in 2019.

But, the sector faces several challenges; inefficient production of DOC's, under-developed supply chains, weak access to capital, knowledge gaps and high production costs are holding the sector back. Yet, the rising demand for poultry meat also presents interesting opportunities for scaling up and modernising the sector. Currently, only 52% of the 1 million tons of consumed poultry is produced domestically, the rest being imported. The poultry sector also receives significant attention from the Moroccan government as a vehicle for foreign investments, food security and trade.

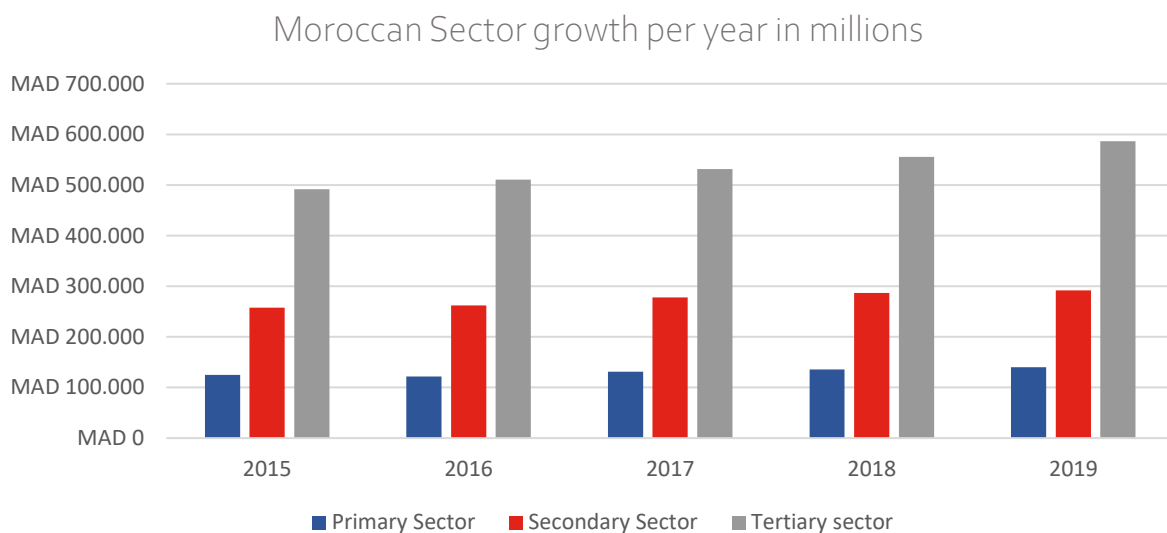
The Dutch poultry sector is one of the most advanced in the world. The private sector, knowledge institutes, NGO's and governmental agents are involved furthering the poultry sector in Africa. Dutch companies are thus well-positioned to contribute to the development of the poultry sector in Morocco. The aim of this study is to firstly give an overview of the Moroccan poultry sector, its challenges, growth patterns and of course the opportunities. Secondly, the study aims to give insight into the needs and wants of the Moroccan public and private sector and how these can be met by the Dutch poultry sector. These opportunities for the Dutch sector are separated in the parts of the sector that offer the most interesting possibilities namely: I Breeding operations/Hatcheries and day-old chick production, II Feed, III Meat Processing, IV Egg Processing. Throughout the document the text will refer to the annex. Annex I contains important data of the poultry sector in a single overview. The colour codes indicate if a value is higher (green) or lower relative to the previous year. Annex II and IV are a graphical representation of the broiler and layer value chains in Morocco, including volumes. These graphs can be used as reference material together with Annex III and V which contain the same information but for the Netherlands.

2. Sector Development and Institutional setting

Socio-economic transformation

In the decade preceding COVID-19 (2010-2019), Morocco's economy (GDP) recorded average per annum growth of 3.46%, outperforming average growth in the Middle East and North Africa (MENA) region (2.87%). However, the COVID-19 pandemic threatens the country's economic acceleration. Indeed, as a consequence of the pandemic, the Moroccan economy is experiencing its first recession in more than two decades. As per the African Development Bank data, Morocco's real GDP decreased by -5.9% in 2020, after recording a 2.5% growth in 2019¹. Morocco's economy, as the World Bank projects, is expected to rebound to 4.2% as it recovers from severe economic slump.

Morocco's GDP is dominated by the tertiary sector, with services providing over half of the domestic production. The secondary sector, comprised mostly of mining, electricity, construction and processing industry, accounts for about 30% of GDP, electricity and water being the most productive industries within that sector. The remaining 15% of GDP is provided by the primary sector, which is actually growing more rapidly than the secondary sector at 3.4% from 2018-2019 and the secondary sector growth in the same period was only 1.73%. Still, the tertiary sector has been growing with an even greater 5.48% in the period 2018-2019.



Despite the primary sector being the least productive compared to the secondary and tertiary sector, agriculture still accounts for almost 13% of the Moroccan GDP, a 13 billion Euro industry. However, the agricultural sector has also been hit by the Covid-19 pandemic. The achieved revenues in the poultry sector in 2020 were 40% less than the MAD 32.5 billion² (3 billion EU) turnover achieved in 2019. This decline has been attributed to decreased demand as a result of restaurant and hotel lockdowns and disrupted supply chains.

¹ World bank data

² Interprofessional Federation of the Poultry Sector (FISA)

<https://www.moroccoworldnews.com/2020/09/319941/covid-19-cost-moroccos-poultry-sector-443-million-in-6-months>

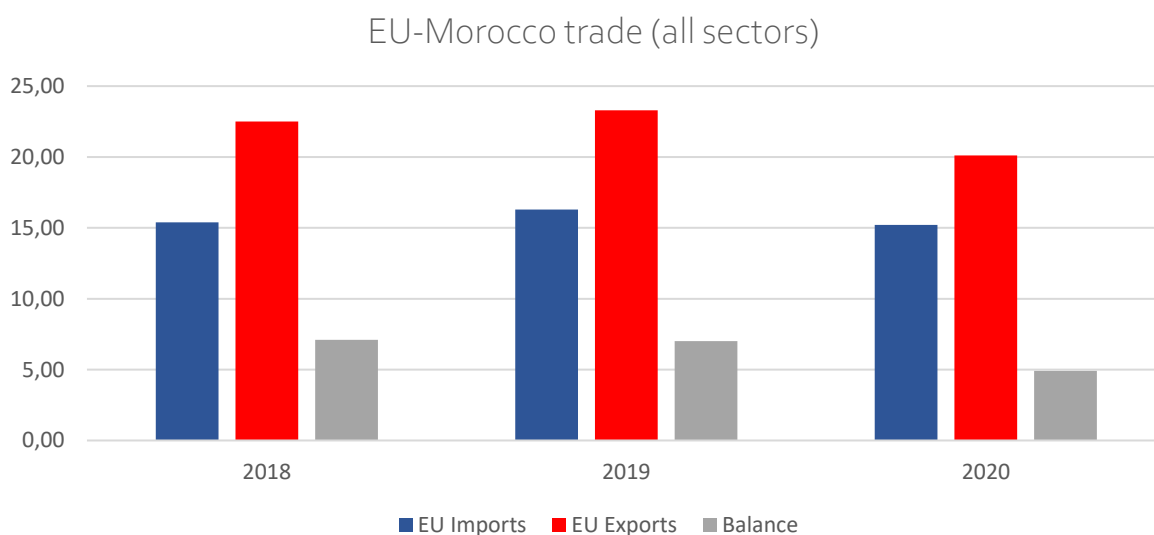
Trade

Morocco is a net importer of agriculture products, with its biggest trade partner being the EU. In general, Morocco imports bulk products and exports high-value consumer products, especially fruits and vegetables. The total trade between the EU and Morocco amounted to €35.3 billion. The EU's imports from Morocco amounted to €15.2 billion in 2020 and was made up of the following product categories (European Commission, 2020):

1. *Electrical Machinery and transport equipment (€6.1 billion, 40,1%)*
2. *Agri-food (€2.5 billion, 16,4%)*
3. *Textiles and clothing (€2.3 billion, 15,1%)*

Exports from EU to Morocco amounted to 20.1 billion and was made up of similar categories:

1. *Electrical machinery and transport equipment (€4.7 billion, 23,3%)*
2. *Chemicals (€2.2 billion, 10,9%)*
3. *Fuel and petroleum products (€1.9 billion, 9,4%)*
4. *Agri-food (€2.2 billion, 10,9%)*
5. *Textiles and clothing (€1.4 billion, 6,9%)*



Approximately 8% of Morocco's global export takes place within Africa. The main destinations are Ivory Coast (11%), Djibouti (11%) and Senegal (9%). The main products Morocco exports within Africa are (World Bank, 2020):

1. *Fertilisers (22%)*
2. *Prepared fish (11%)*
3. *Frozen fish (5%)*

Only 3% of Morocco's imports are from other African countries, mainly Egypt, Algeria and Tunisia. The main products are (idem):

1. *Petroleum gas (26%)*
2. *Fruits (7%)*
3. *Bran (4%)*

The table below also shows the trade volumes of different meat sectors between Morocco and the EU. The trade overview between Morocco and the EU shows the limited amount of meat product categories being traded. Processed meats, such as sausages and deli meats are categorised as meat preparations by the EU. Morocco is a net importer of these products from the EU.

Table 1: EU meat exports to Morocco value in mln. EUR ³	2016	2017	2018	2019	2020
Live animals	56	67	78	82	76
Bovine meat, fresh, chilled and frozen	8	9	11	12	8
Pigmeat fresh chilled and frozen	0	0	0	0	0
Poultry meat, fresh chilled and frozen	0	0	1	1	0
Sheep and goat meat fresh chilled and frozen	0	0	0	0	0
Offal, animal fats and other meats, fresh, chilled and frozen	32	45	49	52	55
Meat preparations	5	4	6	9	6
Table 2: EU meat imports from Morocco value in mln. EUR					
Live animals	5	6	9	10	12
bovine meat, fresh, chilled and frozen	0	0	0	0	0
Pig meat fresh chilled and frozen	0	0	0	0	0
Poultry meat, fresh chilled and frozen	0	0	0	0	0
Sheep and goat meat fresh chilled and frozen	0	0	0	0	0
Offal, animal fats and other meats, fresh, chilled and frozen	54	62	66	78	83
Meat preparations	0	0	0	0	0

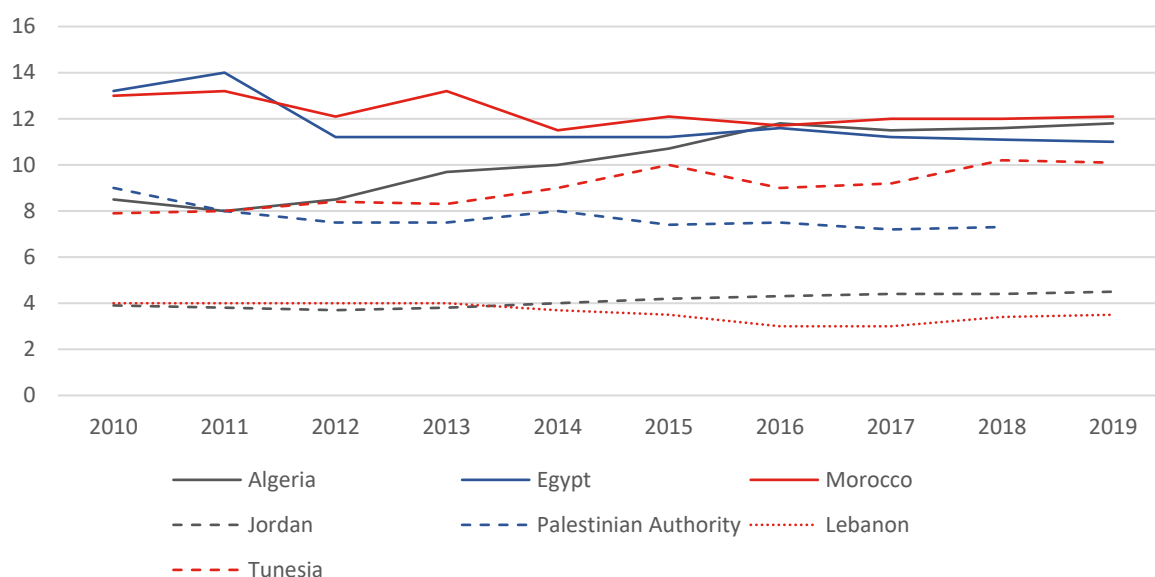
³ (European Commission, 2021)

Agriculture in Morocco

The graph below shows the share of agriculture in the European Southern Neighbourhood. It shows that Morocco's GDP is more strongly influenced by agriculture results than comparable countries in the region. The agriculture sector can be considered to have three distinct categories:

- Modern, high-tech, capital intensive globally oriented farms focussed on fruits and vegetables
- Large scale, dam irrigated field focussed on the domestic market for dairy, sugar, seeds, fruits and vegetables.
- Rain-fed agriculture for grains, olives, pulses and dairy in the north, or grains and sheep in the south.

Agri, forestry and fishing value added (% of GDP) in MED countries



Many farmers in Morocco lack access to high quality inputs and machines. The Moroccan government also struggles with the natural antagonisms that exist within economies of scale; production benefits from increased capitalization that are necessary for modernization, are at odds with the protection of small-scale farmers livelihoods and the social structures of rural society. Table 3 gives an indication of the distribution of agriculture production excluding poultry.

Table 3 Agriculture production		2014	2015	2016	2017
Cattle	1000 heads	3.250	3.291	3.338	-
Sheep	1000 heads	19.231	18.510	19.863	-
Goats	1000 heads	6.147	6.231	5.965	5.741
Fishery products	1000 Tonnes	1.354	1.355	1.449	-
vegetable crops	1000 Tonnes	7.694	7.845	6.528	1.881

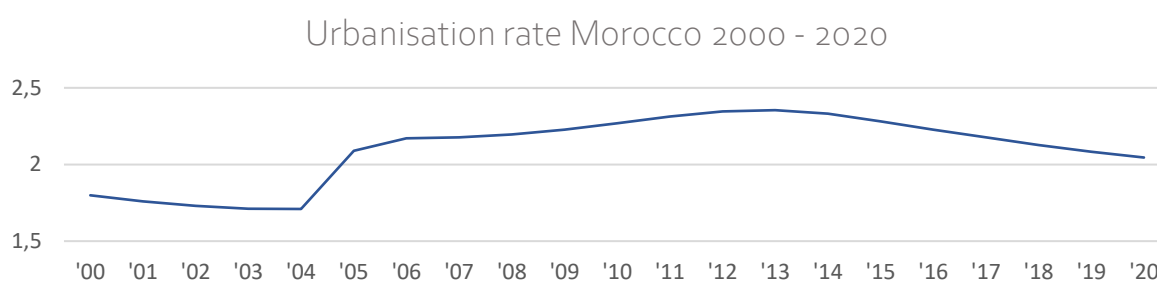
Demography

The pre-pandemic growth decade brought about a steady expansion of Morocco's middle class. In the same period, Morocco had recorded a population growth rate of 1.28% per annum⁴, with a current population size of 36.4 million. A total of 63% of Morocco's population lives in urban areas with an expected increase of city-dwellers of 2% a year.

Table 4 Demography Morocco ⁵	1971	1982	1994	2004	2014
Total	15,379,000	20,419,000	26,074,000	29,892,000	33,848,000
Urban	35,2%	42,7%	51,4%	55,1%	60,3%
<15 years of age	45,9%	42,2%	37%	31,2%	28%
15-60 Years of age	47%	51,5%	55,9%	61,2%	62,4%
>60 Years of age	7,1%	6,1%	7,1%	8,1%	9,6%

The historical demography overview in table 4 show the steady urbanisation that Morocco has undergone in the last few decades. The share of city dwellers has kept rising since 2014, reaching 16,3% in 2020⁵. The population of Morocco has grown in a linear fashion since the 1960's and stands at almost 37 million today with an expected peak population of 47 million in 2060. Although the share of <15 has declined over the decades, Morocco remains a demographically young country with a median age of 29,5⁶.

The urbanisation rate has been relatively stable over the last two decades after a sharp but minor increase in 2004. Stable and continuous urbanisation also suggests the need for intensification of agriculture since there are less participants but higher demand for production output. The majority of the Moroccan population has become urban over the last thirty years, which is in step with the service sector becoming the most productive.



Morocco's food manufacturing industry: Trends, challenges, and prospects

The convergence of the above-mentioned economic and demographic changes has set in motion a transformation of dietary preferences in Morocco. First, with a growing middle-income population, animal protein is increasingly preferred over plant-based protein, with poultry produce accounting for close to a third of animal protein consumed in Morocco. Secondly, given time demands and a need for convenience, the growing urban population is increasingly substituting consumption of foods with long preparation times for processed and ready-to-eat foods. These two consumer dietary trends present opportunities for the Moroccan poultry sector. The data in annex I shows the production, trade, investment, labour and consumption patterns in the Moroccan poultry sector over the last decade.

⁴

⁵ CERES Data

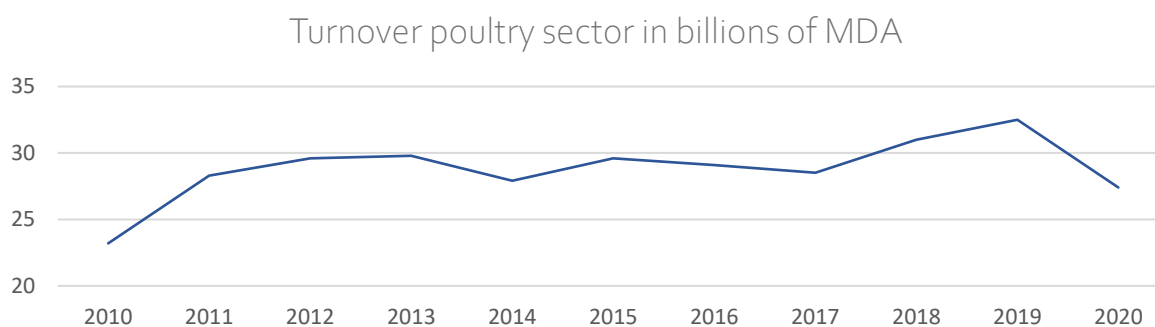
⁶ World Bank Data

Increasing demand

According to data from the Moroccan Poultry Federation (FISA), between 2010 and 2020, average annual per capita consumption of poultry meat in Morocco expanded by 11.1%, with current per capita poultry meat consumption at 19 kg. per annum. Equally, the level of egg consumption is on the rise, with an estimated average annual growth of 2.5% between 2010 and 2020. As of 2020, per capita egg consumption in Morocco is 177 eggs, one of the highest rates in the MENA region. However, the 2020 consumption has slumped compared to 2019 when the country reached peak consumption of 22,1 kg of poultry meat and 195 eggs per annum.

Production and meeting levels of demand

The rising demand for poultry products—particularly poultry meat—presents substantial growth opportunities for the domestic poultry sector. However, the Moroccan poultry sector is yet to realize a bulk of the available potential. For instance, of the 1.02 million tonnes of poultry meat consumed in Morocco, domestic producers accounted for a mere 52%, with the remainder (493, 800 tonnes) satisfied through imports. Moreover, although egg consumption in Morocco has risen in the past years, current per capita consumption level of (below that of Tunisia (9.68), Algeria (8.75kg), Saudi Arabia (7.84) and other MENA countries) is artificially low because the Moroccan egg market is highly dominated by the table-eggs segment, whereas the industrialised and non-industrialised bakery confectionery and dairy produce manufacturing—a rapidly growing sector—accounts for less than a third of egg consumption, relying mostly on imported egg products.



The annual turnover in the Moroccan poultry sector has been growing, albeit somewhat capriciously. The growth chart clearly shows the effects of the Covid-19 pandemic. Interestingly, the severe droughts of 2016 which are very visible in the poultry production data (see annex I), do not seem to have had a severe impact on the turnovers achieved in that year.

⁷ FISA Data: Annex I

Figure 1 shows the main production locations for poultry in Morocco. The urban areas of Rabat, Casablanca, Marrakech and Fez are also the main production areas for poultry products.

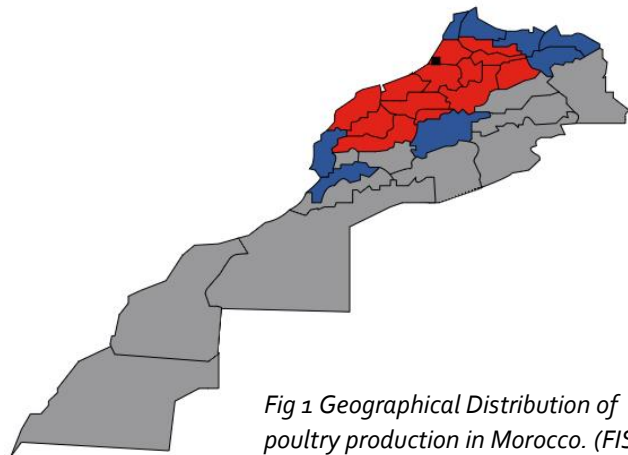
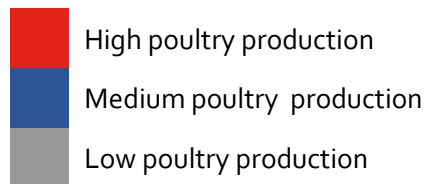


Fig 1 Geographical Distribution of poultry production in Morocco. (FISA)

The Moroccan poultry sector's inability to, as of yet, realise these opportunities, point to the existence of systemic constraints. Interviews with local stakeholders suggest the sector is restricted by five main challenges; these include:

- a. Inefficient production of DOCs and poor-quality of raw materials
- b. Knowledge gaps contributing to poor farm management, low productivity, and high production costs
- c. Inadequate poultry-processing facilities and cold-chain infrastructure
- d. Under-developed supply-chains and agro-logistics infrastructure
- e. Weak access to capital goods and finance

Despite these challenges, the sector is poised for growth. High cost of imported poultry input and finished products—due to the Dirham's weak performance relative to international trading currencies—has catalysed interest in domestically manufactured substitutes.

2. Institutional environment in Morocco

Morocco's legislation for private investments provides several advantages for the poultry sector. The passive benefits -those benefits that do not require action from the beneficiary- are mostly in the form of tax exemptions. Double taxation agreements are in place with several European countries, including the Netherlands. Morocco also provides benefits for both and foreign and domestic investments in different sectors.

Foreign investments

The Moroccan government considers foreign direct investment as a structural part of its development strategy and has implemented policies to bolster the attractiveness of the country for FDI. Firstly, the Moroccan government guarantees foreign investments against the risks of nationalization and expropriation. Secondly, foreigners can hold all of the share capital of companies operating in Morocco unless otherwise specified. Foreigners are also free to transfer investments to other non-Moroccans and are able to transfer income from investments and capital repatriation through approved intermediaries.

Regional investment centres

The government established and supports several regional investment offices (RIC) that can help investors with procedures and are mainly concerned with promotion and development of investment. They can assist entrepreneurs with establishing a formal business, acquire the authorization and manoeuvre state bureaucracy. In 2020, an inter-ministerial committee was launched to increase the effectiveness of the RIC's. The committee aims to achieve three goals for the RIC's:

1. Financial and administrative autonomy
2. Various commissions related to RIC's will merge into an umbrella organisation
3. RIC's should mediate between public and private actors and provide economic incentives for potential investors.

Industrial acceleration plan (2021-2025)

The Industrial Acceleration Plan (IAP) 21-25 is the direct descendent of the previous IAP 2014-2020. The aim of the new IAP is to generalize the successful results of the first plan to other regions in the country. The focus of the plan is scaling up existing industries by encouraging merging of SME's and further including new sectors. The 2014-2020 plan was successful in creating 54 industrial systems together with 32 sector associations and universities. Concretely, the plan increased the vehicle production capacity of Morocco to 700,000 units per year with 117.000 new jobs, 1200 new textile companies employing 185.00 people and increased revenues in phosphates, offshoring, food industry and aeronautical industries by 20%⁸.

The poultry sector has received significant attention from the government over the last few years, who consider it a pivotal industry for attracting foreign investments as well as domestic employment, food security and trade. Governmental support for the sector has enabled the poultry value chain to grow rapidly but has also put into place numerous frameworks and regulations to ensure sanitary upgrading.

⁸ <https://www.moroccoworldnews.com/2019/12/290145/morocco-car-production-africa-vehicles>

Table 5 shows an overview of the most important organisations that are concerned with the poultry industry in Morocco. FISA is the most prominent organisation since it represents a big part of the sector through its specific associations.

Table 5 Poultry organisations in Morocco		
Fédération Interprofessionnelle du Secteur Avicole FISA	Moroccan Poultry Federation	Umbrella organisation for AFAC, ANAM, APV, ANPO and ANAVI)
Association des Fabricants d'Aliments Composés AFAC	Feed Millers Association	Private sector representatives
Association Nationale des Accouveurs Marocains ANAM	Moroccan Hatcheries association	Private sector representatives
Association Nationale des Producteurs des Viandes de Volailles APV	Poultry meat producers association	Private sector representatives
Association Nationale des Producteurs d'oeufs ANPO	Egg producers association	Private sector representatives
Association Nationale des Abattoirs Industriels Avicoles ANAVI	Poultry Processing Plant Association	Private sector representatives
Office National de Sécurité Sanitaire des Produits Alimentaires ONSSA	National Office of Sanitary Safety for food Products	Falls under the Ministry of Agriculture, Fisheries, Maritime, Rural Development and Water and Forests

Since 2000, the government approach to poultry has been specifically aimed at health management. In 2008 law 49/99 has been put in place, regulating health protection, production and marketing of poultry. The law was part of the Green Morocco Programme, a multi-year programme to further develop the agriculture sector of Morocco.

The Green Morocco plan was launched in 2008 in order to mobilise investments towards agriculture. In recent years the investment in Moroccan agriculture has come mostly from the Gulf countries, who themselves import 85% of their food-supply. The focus of the programme was agro-processing and value-added industries, for this reason the government still prohibits foreign investors from acquiring agricultural land⁹.

In 2011 the programme contract between the government of Morocco and the poultry sector was launched which lasted till 2020. The programme had the following objectives:

- Guarantee the countries food security in animal protein
- Investments towards modernization of breeding units, further commercialization of poultry products and development of aggregation and integration models
- 140.000 new jobs
- Improving efficiency and competitiveness of the sector, reduce production costs 10-15%
- Diversification of poultry production with alternative breeding to reach 11% of total (100.000 tonnes) in 2020
- Increase export quantities of poultry products from 400 tonnes in 2010 to 4400 tonnes in 2020

The required investments to achieve this goals were estimated at 3.7 Billion Moroccan Dirham (~€350 million).

⁹ (Castlereagh Associates, 2019).

Governmental grants are also integrated in the Green Morocco Plan under three types:

1. *Grants for equipment and irrigation*

Awarded for investments that increase production or aggregation.

2. *Grants for valorisation*

Awarded to projects that improve commercialization of products (i.e. Egg processing)

3. *Lump sum grants*

Aimed at improved organisation, supervision and access to technology. Amounts in the livestock sector range from 70 (€6,50) to 7500 (€692) MAD per tonne.

The government has formulated the following commitments with regards to poultry for itself:

- Promotion of investment.
- Implement provisions governing the sector (legislative and regulatory texts)
- Promotion of the sector
- Strengthening the professional organisation
- Promote consumption of poultry products
- Financial contribution of the state (funding FISA)
- Reduce circulation of avian diseases between farms

The table 6 shows the goals for the programme and to what extent they were achieved. The results show that the programme goals were realistic and achievable. If it was not for the Covid-19 pandemic more progress would have been. 2020 is therefore a tricky benchmark year, since the situation for most indicators was a lot more positive in pre-pandemic 2019 (see table 6).

Table 6 GMP achievements ¹⁰	Reference year 2008	Target 2020	Situation in 2020	Difference %
Poultry meat production (in tonnes)	440.000	900.000	782.000*	87
Production table eggs (in Billion)	2,9	7,2	5,5	76
Meat consumption (in Kg per capita per annum)	15,4	25	19,2	77
Egg consumption (in egg per capita per annum)	117	200	177	89
Investment in the sector (in billion Dirham)	8,3	13,8	13,7	99
Turnover (in billion Dirham)	20,6	38	27,4	72
Employment	320.000	500.000	460.000	92
Export hatching eggs (in thousands)	400	4.400,00	4.479,00	102
Foreign currency contribution (in million Dirham)	14	172	20*	12

*2019

¹⁰ MAPM 2020

3. The Poultry Sector and its opportunities

The previous chapter gave an overview of the overall status of Morocco's social and economic status and their approach to agriculture and poultry in particular. This chapter will focus on individual value chains that are vital to the poultry sector but are constricted in one way or another. The constraints offer potential opportunities for the Dutch poultry sector to remedy, either through knowledge, technology, equipment or a combination. Each value chain is described in terms of market potential, opportunities & challenges, crucial factors and risk & mitigation.

Meat processing

Market potential

The amount and activity of abattoirs in Morocco has risen steadily over the last few years. Industrial processed tonnage has increased from 30.674 metric tonnes in 2010 to 46.710 in 2020, peaking a year before in 2019 at 55.494 Metric tonnes¹¹. The processing of poultry for the Moroccan consumer can go through either of two routes; a formal route through certified large scale abattoirs, or an informal route, through butcher shops known locally as "ryachats". According to FISA, 87,5% of the processed chicken supply comes to the consumer via the ryachats. The Director of the National Association of Poultry Industrial Abattoirs (ANAVI) estimates that over 90% of chicken and turkey pass through these retail slaughter locations. The Ministry of Health and the Ministry of Agriculture have expressed their concern for the lack of sanitary measures in the informal slaughter circuit and are fearful of the enabling environment for disease. Morocco has a total of 27 approved industrial poultry slaughterhouses and an approximate 15.000 ryachats (see annex II for a complete overview of the Moroccan Broiler value chain).

Table 7 poultry processing ¹²		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Production chicken meat	1000 tonnes	440	460	440	420	456	520	470	550	570	625	535
Chicken meat through slaughterhouse	1000 tonnes	30	36	38	35	42	42	39	44	45	55	46
% through slaughterhouse	Percent age	6.8%	7,8%	8,6 %	8,3 %	9,2 %	8%	8,3%	8%	7,8 %	8,8 %	8,6 %
Production Turkey meat	1000 tonnes	70	80	70	75	78	90	90	90	100	107	100
Turkey meat through slaughterhouse	1000 tonnes	61	57	62	62	68	73	63	81	71	93	94
% through slaughterhouse	Percent age	87%	71%	88%	83%	87%	81%	70%	90%	71%	87%	94%

¹¹ FISA Data 2020

¹² MAPM 2020

Although not dominant, the industrial slaughterhouses have several advantages over the ryachat:

- Live poultry is inspected before entering the slaughterhouse
- Uniform quality and size
- Improved waste management
- Cold chain reduces sanitary risks
- Proper storage and packaging
- Traceability

Although the ryachats dominate the processing and retail end of the poultry market, 94% of turkey processing is done via official slaughterhouses. Turkey is a smaller market overall but total produced weight has been growing relatively faster than that of chicken. According to production and processing statistics in table 7, about 46.000 metric tonnes of poultry and 94.000 metric tonnes of turkey move through one of the 27 slaughterhouses. This represents about 94% of the domestic turkey production but only 8,6% of total chicken production. Even though the production of both poultry and turkey has risen steadily over the years, the share that was processed through modern and industrialized slaughterhouses has been hovering around the same 8% for poultry and 90% for Turkey. Total produced weight of turkey is only 18% of the total produced weight of chicken meat. Modern slaughterhouses are experimenting with new products and techniques such as slicing, mechanically separating meat and further processing. However, the high price of industrially processed meats and the lack of logistics infrastructure is holding back growth in the sector.

Opportunities and Challenges

Since poultry production is expected to grow in the coming years, in tandem with consumption, the pressure on both formal and informal slaughterhouses will increase. Additionally, the Moroccan government is implementing stricter hygienic regulations with more stringent enforcement. These rules will affect the ryachats in particular, resulting in higher demand for industrially slaughtered products. Where 90% of chicken is now bought alive and slaughtered on the spot in the ryachat, the government is keen to formalise the poultry value chain and move away from the ryachats. However, there are still a lot of people dependent on the informal and opaque processes that dominate the tail-end of the value chain now. Besides, the consumer is completely focussed on the lowest price, which the ryachats can offer. The price offered by the ryachats (12.5 MAD per kg) makes it very difficult for industrial abattoirs to turn a profit in the domestic market.

Although price plays an important part in the dominance of ryachats, there are also cultural elements at play. The Moroccan consumer is used to buying their chicken alive and having it freshly slaughtered on the spot. Additionally, older generations are distrustful of large scale operations, concerned that the traditional Halal slaughtering methods are not applied properly.

These socio-economic and cultural aspects of ryachats have restrained the Moroccan government from acting too strictly on sanitary regulations. At some point the government did provide subsidies to ryachats so they could switch to more hygienic operations but as of yet this has not had a breakthrough effect. Nonetheless, the younger generations are more keen on buying industrially processed meat and so there is a slow but steady shift away from ryachats in the big cities.

There is also a strong demand in Morocco for Mechanically Separated Meat (MSM), a by-product of the industrial slaughter process. Currently, MSM has a strong market in Morocco but is mostly imported. Producing MSM locally requires additional treatment technology and packaging equipment. Only three companies in Morocco currently have the technology to produce MSM.

The expectation is that ryachats will eventually be forced to clean up their operation in one way or another. This will result in the clustering and scaling up of ryachat operations, where they will start to resemble more the industrial abattoirs that already exist in the country. At the same time, the existing industrial processing operations will see the demand for their product increase.

To achieve the necessary biosecurity and hygiene measures along the chain, the industry will have to take significant measures and invest in equipment, logistics, operating procedures and biosecurity products. The Dutch poultry sector has ample experience with this technology, equipment and operations.

Crucial factors:

Government policy: The weight that the Moroccan government puts on biosecurity and their willingness to enforce new regulations will determine how fast the ryachats will adapt to modern slaughtering practices.

Target group: For suppliers of slaughtering equipment it is important to decide on the target group. Although the existing industrial slaughtering houses have the necessary capital for investment, their products are already priced out of the market. Any investment therefore needs to guarantee a sharp cost reduction that allows for a more affordable price of the end product. The ryachats have very little investment capital and are hyper-focused on price, a subsidy scheme or forced use of new technology could be an excellent way to reach this group.

Traditional consumer: The biases of the consumer determine the practices of the producer. The Moroccan consumer has a traditional preference for buying a live chicken that is slaughtered in accordance with Halal.

Risks & mitigation:

Slow government action: The change from ryachats to industrial slaughterhouse is currently moving slow but steadily. However, if the government does not act with resolve, the ryachats informal practices will remain dominant for a long time. Seeing how the government has already attempted to subsidize increased sanitation and this topic is emphasized in the new 2021-2025 Industrial Acceleration Plan (page 17), the likelihood of the government abandoning their sanitation policy line is considerably small. However, it is also difficult to mitigate on the short-term and forces a passive attitude.

Demand: The traditional consumer patterns in Morocco do not guarantee that further processed meat against a slightly higher price will succeed, despite the fact that the younger generation are more keen to buy industrially processed meats and the market seems to be growing. But, the significant imports of MSM and other poultry meats indicate that the demand is there. Additionally, Morocco's growing economy signals the viability for more expensive foodstuffs. Thus there is only a small chance that demand will not keep up with supply, nonetheless, if economic growth slumps and demand does fall, it will be difficult to mitigate.

Feed:

Market Potential

North Africa's feed industry is among the fastest growing feed regions in the world¹³. Industrial compound feed production totals 5.1 million metric tons in Morocco with 80 percent going to the poultry industry (2021). There are 40 companies in Morocco for the production of compound feeds, with poultry feed as their main product in most cases¹⁴. Additionally, poultry consumption is expected to grow 5% year-on-year from 2021 to 2025¹⁵.

In 2019 the total production was 3.7 million tons for poultry and 1 million tons for ruminants, with a total production estimated at about 5 million tons¹⁶. There is quite a fierce competition for market share between factories, leading to a continuous quest to improve costs and quality¹⁷. A significant number of egg-laying and large breeding farms have their own feed manufacturing units and together process nearly 600,000 tons/year (on-farm manufacturing). Well-known brands on the Moroccan market are: Alf Maghreb: chicken & dairy, additives and premixes: controls 18% of the market Alf Sahel: chicken & dairy INAAM: dairy, chicken, horses, cats and dogs Sofalim: chicken and dairy¹⁸. These feed industries use domestic products as raw materials, like cereals (corn, barley), legumes, cakes, by-products of other food industries and imported products like food additives and raw materials.

Apart from fish meal there is almost no raw material available locally for feed manufacturers. Close to 93% of raw materials are imported, mainly from the United States and South American countries. The relatively recent prominence of maize and soya in feed formulas has pushed up imports from main production countries of these crops such as the U.S. and Brazil. In the past, Moroccan manufacturers used a wider variety of crops, such as barley, sunflower, bran wheat, etc. Now, only the phosphate and calcium carbonate is generally sourced locally.

For industrial poultry farms, the feed distributed is a complete compound feed manufactured in factories specializing in poultry feed. In general, these foods are cereal-based (but especially barley, sorghum, from cereals), oilseed cakes (soya and sunflower), fishmeal, minerals and premixes. The majority of ingredients (maize, soybeans, sorghum, minerals and vitamins, additives) are imported and the rest is produced wholly or partly domestically.

¹³ (U.S. Soybean Export Council USSEC, 2020)

¹⁴ (Agriwork and Partners, 2021)

¹⁵ (Fitch Solutions, 2021)

¹⁶ (Agriwork and Partners, 2021)

¹⁷ *Fabrication d'aliments*. Aviculture Au Maroc. (Aviculture Maroc, 2021)

¹⁸ (Aviculture Maroc, 2021)

Opportunities & Challenges

Feed accounts for 70% of the poultry production cost and is therefore a critical point for any poultry integration. In abstract terms, poultry production is simply the transformation of low-grade protein into high-grade protein through the chickens' meat or its eggs. Naturally, the quality of the inputs determine for a large part the quality of the outputs. The higher the quality of the feed that is available for the chickens, the higher quality of the meat and eggs that are available for the consumer.

The quality of the feed also influences the feed conversion ratio (FCR), a number that indicates the amount of feed is necessary to produce 1 kg of meat or eggs. The ingredient prices for feed vary throughout the year, since the raw materials are globally traded commodities.

Morocco has an arid climate and rainfall is scarce, this makes it difficult to grow crucial raw materials for feed such as maize and soy. Agriculture investments are also more focussed on high-value horticulture such as fruits and legumes. But, since Morocco does not have tariffs for feed raw materials with the US or EU, imports are relatively cheap. Considering the high productivity of soy and maize in, for example, the US, local Moroccan farmers will be challenged to compete in this market without the presence of severe import duties.

Current feed producers suffer from informality and chaos in the sector. This volatility stems from the fact that 85%/90% of the chicken meat is sold alive with little uniformity in the product. Often the farmers only pay the feed companies after they have sold their chickens and thus the feed companies' compensation depends on the success of farmers to get a fair price. The feed production in Morocco is done by either specialized industrial feed-millers or on-site at layer farms. About 55% layer farms produce their own feed-mix. In total, the farms produce about 500.000 tonnes of feed per year against about 2,8 million tonnes produces by the industrial millers. Total feed production capacity is estimated at 6.000.000 tonnes per year by the AFAC, of which 3.700.000 tonnes is poultry feed.

Approximate prices of feed in Morocco:

Feed type	Price per kg in Dirham	Price per kg in EU ¹⁹
Starter feed	4,69	€0,44
Grower feed	4,50	€0,42
Finisher feed	4,30	€0,40

¹⁹ Exchange rate 18/02/2022

Morocco has the ambition to become a regional player for poultry, aiming to start exporting meat and eggs to neighbouring African countries. At the same time, the middle-class is growing and poultry consumption is therefore expected to rise. The demand for poultry products, and investments in this sector, is therefore rising steadily. The opportunities for foreign investors in the feed sector are:

Growing market: The middle-class is growing and consuming more and more poultry products

Ambitious sector: Poultry sector attracts attention from the government, both from a food security perspective as well as a vehicle for economic growth.

Equipment: Hygiene and quality control is becoming more important, feed testing equipment and quality control technology can contribute to improved control of feed.

Training: A significant portion of the total feed is still produced at the farm level and could therefore benefit from insights and training on feed milling and quality control.

There are several challenges the poultry sector in Morocco faces with regards to feed. Dutch business might be well positioned to address the costs, quality and standards in Moroccan feed industry. Another challenge that might be an opportunity is waste management. At the moment, it is illegal to recycle slaughtering waste into feed because of sanitary reasons. These proteins are thus lost instead of recaptured in the poultry chain. Seeing how the raw-materials for feed are expensive and scarce, improving the practices in slaughterhouses and organising the sector with regards to waste is an opportunity to hit two birds with one stone: solve a waste issue on the processing side while resolving an input issue on the feed side. If the slaughterhouses can adhere to pre-determined sanitary principles and the organisation is in place to process the waste from the slaughterhouse into useable protein, a new value chain might be established.

Crucial Factors

The success of a feed company in Morocco depends on many factors. Considering the above opportunities and challenges, there are a few aspects that are instrumental to success.

High quality: Feed operations can distinguish themselves in two categories: quality and price, neither of which can be neglected. Achieving a competitive quality requires complete control of the mixing process and the necessary technology to assess the quality of the inputs and outputs. Balancing the quantities of raw materials, vitamins and minerals accurately requires experience and the help of technology. These technologies also create the possibility of doing more with the locally grown raw materials such as barley, oats, alfalfa and even sugar beets. This can provide a competitive advantage.

Attractive pricing: The pricing of the feed and its attractiveness for buyers is essentially a matter of arithmetic. For the broiler farm, every kg of feed represents a kg of meat with a price attached. Depending on the quality of the feed, the ratio of *kg of feed* to *kg of meat* indicates what price point is attractive. Extremely cheap feed is unattractive if it results in unhealthy chickens with minimal weight gain.

Supply chain: The dominance of maize and soy in feed formulas means that feed inputs are for a large part completely liberalized and access is determined through world grain market. Morocco's feed manufacturers are therefore subject to price volatility of these global commodities. These commodities are some of the most traded products in the world, any feed producer in Morocco therefore needs to have an aptitude for global purchasing and logistics. Supply management is a crucial position for the competitiveness of the feed company. Additionally, raw materials need to be perhaps dried and saved to protect against price fluctuations in the future. This means the purchasing strategy needs to reflect a level of understanding and predictability of where world market might be heading.

Energy: Managing inputs properly requires reliable energy supply but this can be unreliable in some parts of the country.

Finance: In many cases the farmers can only pay their input supplier after having sold the products. Small to medium farms should have better access to credit to be able to pre-finance their inputs.

Risk & mitigation:

Although Morocco offers many opportunities, and has well-established poultry and feed companies. The country also comes with certain risks that any investor needs to be aware of.

Currency: All materials need to be imported from global market and are subject to currency risk. The Dirham is forecasted to depreciate slightly through to 2025, which will increase costs for Moroccan producers. However, a slightly depreciating currency can also give the export oriented companies a boost. Through increased export it's possible to hedge against the increased price of inputs. There is a real likelihood of currency depreciation but the impact is not severe nor expected to be necessarily impactful.

Raw Materials: Morocco runs a consistent maize deficit which is forecasted to remain until 2025²⁰. New trade routes established with the Ukraine to combat this deficit seem precarious in light of the current situation. Shortages can this be expected to stay in the foreseeable future. Nonetheless, the shortages have always been there and the sector is designed to deal with this fact. Resolving the shortage therefore offers an interesting opportunity.

Logistics: The dependence on sea-freight for raw materials from South America and the U.S. making the business case vulnerable to global price movements of freight. As we have seen during the Covid-19 pandemic, it is not unheard of for the sea-freight prices to be volatile. However, the rebooting of the global transport system with the waning of Covid-19 suggests that the worst is over in terms of transport delays and price hikes.

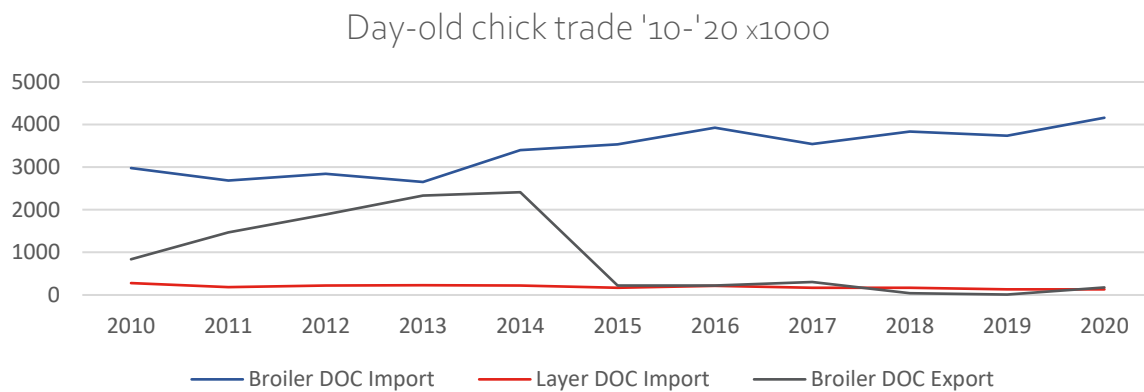
Demand: The Covid-19 pandemic has stagnated or in some cases reduced consumption of poultry products. The long-term effects are not clear yet but any introduction of new restrictions will most likely result in reduced consumption. However, the data clearly shows that the reduced demand of the past 2 years was the result of Covid-19 in an otherwise upward trend.

²⁰ (Fitch Solutions, 2021)

Day-old chicks

Market potential

The production of broiler Day-old chicks (DOC) has been growing slowly in Morocco over the last decade. Collectively the country produced around 350 million broiler DOC's in 2010, growing to an all-time high of 490 million in 2017 before dropping back to 380 million in 2020 after reaching 480 million in 2019. The production of layer DOC's has been even more unpredictable, moving from 14 million in 2010 to 15 million in 2020 while peaking at 20 million in both 2011 and 2014. The Moroccan poultry sector is still dependent on Day-old chick imports.



Locally bred DOC quality depends on the genetics and circumstances of the parent stock. The parent stock needs to have access to clean water, plenty of nutrients, hygienic environment. A weak parent stock will inevitably lead to weak chicks, who will be more susceptible to disease. Since Morocco imports most of their DOC's and this is reflected back in the poultry price, more hatcheries are needed to supply the local market.

Opportunities & Challenges

Since Morocco is still dependent on the imports of Day-Old Chicks, specialist hatching operations to supply poultry farmers with DOC's or hatching eggs could be a great opportunity. This hatching operation could be established and run by existing large scale Moroccan integrations. Dutch investors looking to enter the market or current DOC/Hatching eggs exporters to Morocco looking to solidify their market share.

Broiler production in Morocco has increased 37% from 2010 to 2019 (350 million to 480 million birds). Although a slight dip in 2020 because of the Covid-19 pandemic, poultry production is estimated to grow with almost 20% between 2019 and 2025.

Table 8 poultry production prognosis ²¹	2019	2020	2021	2022	2023	2024	2025
Poultry production, '000 tonnes	782.0	800.0	820.0	855.0	887.0	910.0	930.0
Poultry production, % y-o-y	8.6	2.3	2.5	4.3	3.7	2.6	2.2
Poultry consumption, '000 tonnes	759.2	776.7	811.6	858.7	905.9	953.9	990.2
Poultry consumption, % y-o-y	4.0	2.3	4.5	5.8	5.5	5.3	3.8
Poultry consumption, kg per capita	20.8	21.0	21.7	22.7	23.7	24.7	25.4
Poultry production balance, '000 tonnes	22.8	23.3	8.4	-3.7	-18.9	-43.9	-60.2

This production will be made possible through industrial integrated production systems, these farms can achieve a cost reduction through local production of DOC's and hatching eggs since they are usually more affordable than imported material. The most dominant broiler breeds that are currently being used are:

- Ross (75%)
- Cobb (20%)
- Guba (5%)

Guba and Cobb used to be more popular but there was a perceived lack of performance from these breeds in the last few years, leading to Ross becoming the most popular breed. For laying hens, the most popular breeds come from Hendrix Genetics.

In Q3 and Q4 of 2021 the price of DOC's had risen sharply because commercial hatcheries started underproducing. The price went up from an earlier average of 2 DH per chick to about 7 DH²². According to Moroccan poultry farmers, the 40 or so hatcheries in the country are associated and therefore able to control downstream prices. Reality shows that this is not always the case, the hatcheries can at times be fiercely competitive with prices dropping sharply for a period of time. As a result, poultry prices are highly cyclical, following periods of over- and underproduction.

The cost reduction of a local hatchery can provide market efficiency throughout the entire Moroccan value chain. The significant pressure of existing hatcheries to supply the market and the risks of DOC import creates reasonable opportunities for new breeding operations to gain market share. Additionally, growing poultry production also leads to increased demand for hatching eggs and DOC's. Although about 40 hatcheries are currently active, the growing market and demand for higher quality could result in increased scale with less players or equal scale but more competitors.

²¹ MAPM 2020

²² (Jaidani, 2021)

Crucial Factors

Technical and operations: Breeding requires close attention and management of the health of the stock. A weakness in the parent stock can have a knock-on effect and negatively affect growth rates and health of the broilers. Vaccination regimes and feed rations are also vital to the success of the operation.

Supply chain: Timely input of flock and output of chicks needs to be exceptionally well timed. Especially considering any regulatory controls and checks, it is important to rotate the flock as efficiently as possible.

Regulatory compliance: Importing parent stock is controlled in Morocco and requires quarantine. The health of the birds must also be monitored continuously.

Energy infrastructure: Continuous climate control is essential for a successful breeding operation. The temperature, light and airflow need to be carefully controlled, 24 hours a day. A reliable energy supply is necessary to prevent interruptions in these operations.

Risks & Mitigation

Dumping: Increased self-sufficiency in hatching eggs and Day-old chicks could lead to current suppliers from the Americas opting for dumping strategies to dissuade and disincentivize local hatcheries and breeding operations. Although the risk of sustained dumping by current suppliers is relatively low, it is also difficult to contest. Those companies that would suffer from overseas dumping can only put their faith in the government and their willingness to install import duties to level the playing field.

Supply chain: As mentioned, the timeliness of flock rotation is essential for proper operations, supply chain disruptions as seen in 2020/2021 as a result of the COVID-19 pandemic can have severe consequences when starting out. Knowledge and experience in supply-chain management is essential in mitigating this risk and is indispensable in this sector.

Disease: Disease is always a risk when handling birds. A dedicated in-house veterinarian is therefore essential.

Egg processing

Market Potential

The Moroccan egg products sector is relatively young, with only three companies specializing in egg processing. The first egg breaker was launched in 2005, followed by a second one in 2006 and a third one in 2017. All three installations only produce pasteurized liquid eggs. The majority of the products consist of whole egg pasteurization (84%), followed by egg white pasteurization (11%) and then egg yolk pasteurization (6%). The sector today creates around 300 direct and indirect jobs (Kmicou, 2021).

Pasteurized liquid eggs are mainly consumed on the local market by industrial biscuits and pastry shops, traditional bakeries and pastry shops, hotels and restaurants, etc...

The three Moroccan egg processing companies have a combined processing capacity of 15.000 tons per year. However, their combined production only reaches 2.000 tonnes per year. In addition to that, Morocco has a low processing rate for eggs, estimated at less than 1% share of the overall production of shell eggs. While on the other hand, the share of eggs used in processing in the EU as a whole is around 17% with some countries even reaching over 30%. (Kmicou)

This low processing percentage can be explained by the following:

- For some restaurants and food service providers, liquid egg is considered untraditional and may therefore be perceived as non-compatible with their own brand or image. So, even though the supply side is not well developed, the demand side is also slow to adopt processed eggs (see annex IV for an overview of the egg value chain in Morocco). The absence of regulatory obligations imposing the use of egg products by operators in the food industry or by professionals in the catering industry.
- In this sector, the margins are low and competitiveness is linked to the shell eggs that constitute the raw material. Shell eggs prices can be volatile and thus the prices of the pasteurized liquid eggs.

In addition to that, consumers tend to directly compare the prices of shell eggs to the prices of pasteurized liquid eggs, while neglecting the fact that it has been transformed into a new product that has sanitary benefits that significantly lower the risk of cross contamination.

The egg products sector in Morocco needs state support, such as the recovery of non-apparent VAT, which represents up to 10% of the cost price of the finished product in the egg products industry. The recovery of the tax not apparent on the purchase of eggs locally would reduce the cost of the liquid egg processed and push manufacturers to use it. This provision of the circular note No. 726 on the tax provisions of the Finance Act No. 70-15 from 2016, is already granted to pulses, oilseeds, fruits and vegetables, and lately dairy products (Finance Act 2018) for the recovery of VAT not apparent in the above products. The implementation of such a measure would be able to reduce the selling price of egg products and promote the popularization both on the domestic market and export.

Opportunities & Challenges

In a study done by Kmicou, the selected participants mentioned egg loss, labor and time loss as the main problems associated with the usage of shell eggs (shell eggs breaking). 32.7%, 31.6% and 22.7% of the participants in the study respectively selected egg loss, labor and time loss as the problems they face with hand egg breaking.

The processed egg product provides a solution to these problems: the automatic braking process allows to minimize egg losses, increases the yield, while insuring a good separation of the white and the yolk. The minimum capacity of breaking machines present on the market have a minimum capacity of 20.000 eggs/hour, thus saving eggs, time and power.

In addition to that, it is important to emphasize that processed eggs do offer several advantages that policy makers would like to take advantage of. Firstly, the increasing establishment and enforcement of good hygiene practices, health regulations and procedural protocols such as HACCP will become more prevalent in Morocco. In general, liquid, powder or other forms of processed egg will be less risky to store and handle from a health and hygiene perspective since it is less likely to be contaminated and easier to keep without spoiling than shell eggs. When it becomes more urgent for the food service industry to adopt more stringent regulations they might become more interested in processed egg products.

Crucial Factors

Volatility of shell eggs price as a raw material: Shell eggs are the raw material when it comes to producing liquid eggs. The prices of eggs are volatile, since they are linked with feed and chicken prices. This constitutes an additional risk that could increase the processed product's price further but also an opportunity. Processed eggs can be stored longer than regular shell eggs, this allows processors to buy during gluts and sell during shortages.

Policy: Processed eggs producers wish to have a policy that supports their products by making it appealing for consumers when compared with shell eggs. This support is necessary before the current operation can run at full capacity.

Risk

Non-significant adoption: Through policy and improved practices (egg-powder instead of liquid for example) the price can be brought down and make it a more attractive wholesale product. However, the cultural constraints mentioned above could lead to some resistance in adopting the product. Also, current liquid egg manufacturers are producing way under capacity, meaning that demand needs to increase significantly before additional investments become worthwhile.

Cost of liquid eggs cold storage: Pasteurized liquid eggs need to be stored at 4 degrees Celsius, unlike shell eggs. Not breaking the cold chain is important here. This can cause considerable costs.

Cost of equipment and machinery: Egg processing is also a capital intensive industry, requiring considerable investments in machinery and equipment to reach the necessary scale.

Changing the consumer's perspective on liquid eggs: As mentioned previously, Moroccan customers tend to compare prices of liquid eggs with shell eggs while disregarding things such as the fact that it is a transformed product with sanitary advantages. Another thing is consumers considering liquid eggs not traditional. Shifting consumers perspective takes time and is not always successful. A more fruitful approach might be to focus on wholesale market such as hotels, restaurants and industrial bakeries.

Opportunities for partnership

The Moroccan poultry sector has been growing steadily over the last few years and has become 100% self-sufficient in meat and egg production. Nonetheless, the sector faces internal obstacles that will seriously hamper future growth if not addressed. Market constraints, such as feed prices and DOC imports, combined with unsanitary practices and systemic deficiencies in the organisation and integration of the value chain, can also be regarded as opportunities for the Dutch poultry sector.

Table 9 gives an overview of constraints and opportunities in the Moroccan poultry sector. The table also suggests some Dutch companies that are operating in that sphere and could potentially access these opportunities.

Table 9: Constraint	Opportunity	Potential Dutch companies
Higher price of processed egg	-Improved production and -Additional processing methods such as separated dried egg.	- Sanovo Technology group - Moba B.V. - Vencomatic Group
Majority of DOC's are imported.	-Breeding/hatching technology -Genetics -Export of poultry knowledge	- Hendrix Genetics B.V. - Royal Pas Reform - Verbeek Hatchery Holland - Vencomatic Group
Feed produced is considered expensive and could be of higher quality	-Equipment -Training -Feed formulation.	- Agraplan Farmaca B.V. - Cagemax - Champrix B.V. - Koudijs Animal Nutrition B.V. - Trouw Nutrition - Ottevanger Milling Engineerings
Slaughtering industry is largely informal and poses sanitary risk	-Equipment and -Training -Chain control systems	- Marel Stork - Ellpress - Foodmate - Meyn - Mavitec Group - Nijhuis water tech - Colubris clean tech - Schippers Group
Sanitary restrictions prohibit the recycling of protein	-Reduce waste -improve feed raw material stream -Processing equipment	- Marel Stork - Ellpress - Foodmate - Meyn - Mavitec Group

In addition to the overview in table 9, there are several indicators for success that apply to the Moroccan sector as a whole:

- **Policy and regulations:** The success of the development of the sector is dependent on the regulation and policy direction of the Moroccan government. Ryachats, medium-scale farmers and egg processors need active stimulus to modernize and upgrade. At the same time, feed producers and hatcheries can benefit from protection against foreign exporters.
- **Consumption:** Although consumption is growing, the Moroccan consumer could be better informed about the processed poultry products and the sanitary practices of industrial abattoirs.
- **Knowledge transfer:** There is significant poultry knowledge in Morocco but it is concentrated at a few large scale internationally oriented companies. The local market could benefit from training courses and improved practices.
- **Access to finance:** Medium-scale operations have a difficult time to upgrade and modernize the operation because they cannot get credit. Financial services specifically aimed at the poultry sector could be an opportunity.
- **Organisation:** In general the Moroccan poultry sector is disorganised according to its stakeholders. Capacity training for sector associations could contribute to an interlinked sector.

Access to market:

For any company that is interested in these opportunities, the Moroccan government, Dutch government and the Moroccan private sector are good places to start.

The Moroccan government, together with FISA, has been improving the poultry sector through the Green Morocco Programme. The programme is considered successful, getting close to achieving its goals when it ended in 2020 (for poultry), in spite of the difficulties caused by Covid-19.

A new programme contract for the development of the poultry sector, which will cover the period 2022-2030, is expected to be signed between the Moroccan state and FISA this year. Although the framework has not been published, it is likely to follow the goals laid out in the previous programme (see page 14 & 15 of this report). The following sector-wide goals offer interesting angles for foreign investors:

- Increase export
- Increase foreign currency contribution of the sector
- State compensation for health measures and health sanitation programmes
- State contribution to R&D programmes
- State grants for equipment for:
 - o Industrial slaughter
 - o Packaging units
 - o Poultry export
 - o Egg processing

The Green Morocco Programme also offered substantial subsidies, grants and financing for projects aimed at improving organisation and integration of certain parts of the sector. To what extent these programmes will continue is as of yet unclear. FISA and underlying associations together with the regional investment offices (see useful contact on page 29) can assist companies interested in investing in the Moroccan Poultry sector.

RVO instruments

The Dutch Private Sector Development Agency (RVO) is tasked with supporting entrepreneurs in their sustainable, agricultural, innovative and international endeavours. It aims to detect, improve and engender international opportunities for the Dutch private sector. RVO has several methods and instruments at its disposal to achieve this. Besides networking, knowledge sharing and informing, RVO has several financial instruments at its disposal. Depending on the aspired scope of involvement in the Moroccan poultry sector, from a trade relationship to full direct investment, the following instruments or approaches can be used:

1. Start international Business (SIB) Programme (RVO (up to March 31st 2022):

- Coaching voucher
 - o *The coaching voucher can be used to pay a an accredited coach to support the company in doing business internationally. The voucher is worth €2500.*
- Market Entry Voucher
 - o *Market entry voucher can be used to pay for advice from an independent external expert who can introduce you to local contacts, maintain contacts or set up a local branch. The voucher is worth 50% of the costs with a maximum of €2500.*
- Mission voucher
 - o *The mission voucher can be used to take part in a trade mission of join a trade fair exhibit. The voucher is worth 50% of the participation costs with a maximum of €1500 for a trade mission and €2500 for a joint trade fair exhibit.*

The above SIB support vouchers are available till March 31st 2022. At the point of writing it is not decided if the programme will be extended.

2. Partners For International Business (PIB) (RVO)

PIB's are aimed at positioning the Dutch private sector in the "topsectoren" (top-sectors) internationally through a 2-3 year public-private partnership project. Companies (minimum of 5) must be prepared to at least match the government support in hours, material or otherwise.

3. Trade Mission (General)

Trade mission are an efficient way to meet the most important actors in a certain market and sector. Missions can be organised by the government but also by independent organisations (such as NABC) when the demand is there. Trade missions often result in trade deals and even more long-term collaborations.

4. Events (General)

Trade fairs and exhibits are often a good indicator of where the market is heading and how it is currently developed. It is also a good opportunity to meet with many potential clients in a short time. The following three fairs are the most relevant for poultry in Morocco- although it is unclear if they can go through as a result of Covid-19:

- Casablanca Poultry Fair: DAWAJINE
- SIAM - Salon International de l'Agriculture au Maroc
- Morocco FoodExpo

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(Regional) Investment Centers Morocco

Casablanca: <https://casainvest.ma/en>

Rabat: <https://www.rabatinvest.ma/>

Marrakesh: <https://marrakechinvest.ma/>

Tangier: <https://investangier.ma/>

Fez: <https://fesmeknesinvest.ma/>

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The Netherlands Embassy, RVO and NABC organise a webinar to present this report to the Dutch poultry sector on the 14th of April 2022. Contact NABC for more information.

Moroccan Company List

Company name	Activity	Company name	Activity
TO BELDI	SLAUGHTER	CICALIM	POULTRY FEED
ADM MOROCCO	FEED	COMAILI	POULTRY FEED
AFRIC TURKEY	TURKEY BREEDING	COPAG	POULTRY FEED
AGADIR POULTRY	POULTRY LIVESTOCK & SLAUGHTER	COPRALIM	PROCESSED POULTRY MEAT EGGS AND DERIVED PRODUCTS
AGRIAL	PROCESSED MEATS & EGGS	COPROGAL	POULTRY FEED
AGRICULTURAL LIVESTOCK HAJJI	PACKAGING POULTRY FEED	COSSONA	
AGRIMPEX		COUVATLANTIC	BIRTH
AJYAL NEGOCE	PACKAGING EGG	COUVDINDE	BREEDING & POULTRY FEEDS
AKSAM	FEED	COUVNORD	EGGS AND DERIVATIVES & HATCHING
ALF & BREEDING CHTOUKA	HATCHING & POULTRY FEED	Hatcher of the CHAOUIA	BIRTH
ALF AL ATLAS		Hatcher MAGREPOUS	BIRTH
ALF CHAHDA	POULTRY FEED	SOUTHERN HATCHES	EGGS AND DERIVATIVES & HATCHING
ALF DYNACOME	POULTRY FEED	DAR ELFELLOUS	BIRTH
ALF EL FELLOUS	POULTRY FEED	DAWAJINE	POULTRY SLAUGHTER & PROCESSED POULTRY MEAT
ALF ISSEN	POULTRY FEED	Skhirat	
ALF LAASSILAT	POULTRY FEED	DELTA VI	BIRTH
ALF SAHEL	POULTRY FEED	ALASSILE TURKEY	TURKEY BREEDING
ALF TANSIFT	POULTRY FEED	OMEGA TURKEY	TURKEY BREEDING
AMANDINE INTERNATIONAL	PROCESSED MEAT	DINDY	PROCESSED POULTRY MEAT POULTRY
AMAZONIA FOOD SERVICE	POULTRY MEAT HATCHING & FEED FOR	EDDIK	FEED
ATLAS HATCHER	POULTRY MEAT	EL ALF	POULTRY FEED
AVIBERN FARM	BIRTH	ELBENNA FOOD	PROCESSED POULTRY MEAT EGG
POULTRY EL FERDAOUS	EGG PRODUCTION	ELBO OVO	PROCESSING TURKEY FARMING
AVIPOULE	BIRTH	ELDIN	
BCI FOOD	PROCESSED POULTRY MEAT BREEDING &	ABDELLATIVE ESSAFI Dakhla	
BEAUTIFUL TURKEY	SLAUGHING OF TURKEYS HATCHING	69 EURO CHICKS / FEED AND CHICKS BIRTH EI Jadida	BIRTH
BEMAG		CHICKEN EXPRESS	CHICKEN BREEDING
BENAVIC	EGGS AND DERIVED PRODUCTS	FELLOUS MABROUK	BIRTH
BIOZAVIA	POULTRY SLAUGHTER	FELLOUSSE OUED SOUSS	BIRTH
CARVEN	EGGS AND DERIVED PRODUCTS	FOODIPEX	PROCESSED POULTRY MEAT
CASA GRAINS	POULTRY FEED	Bouznika	
CASA MEAT	PROCESSED POULTRY MEAT HATCHING &	75 FOODIS POULTRY MEAT Berrechid	POULTRY SLAUGHTER & PROCESSED POULTRY MEAT
CASAVI	POULTRY FEEDS	SOUTH GALLINA	BIRTH
AIT HAMMOU LAHCEN EGG Conditioning centre	EGG PACKAGING	OUAKKAHA GROUP	PROCESSED POULTRY MEAT EGGS
CHAKIRCOM	PACKAGING OF FARMED TURKEY	HIFEEDS	
CHAOUIA TURKEY	EGGS	HYLINE MOROCCO	BIRTH
MIAMI CHARCUTERIE	PROCESSED POULTRY MEAT CHICKEN	INAAM	POULTRY FEED
CHICKEN CHARK	FARMING	82 LA FONDA FOOD INDUSTRIES POULTRY MEAT Nouasseur	POULTRY SLAUGHTER & PROCESSED POULTRY MEAT
CIAV	BREEDING & POULTRY EQUIPMENT	Jaber Covers	BIRTH

KPCD KIP CHICKEN CHIKEN DAJAJE LA	FARMING	QUALAVI	POULTRY SLAUGHTER & PROCESSED POULTRY MEAT
GRANDE BOUCHERIE DU SOUSS LA	PROCESSED POULTRY MEAT PROCESSED	REDA3	PACKAGING OF EGGS POULTRY
MAISON DU FOIE GRAS	POULTRY MEAT CHICKEN FARMING	STEMAC	EQUIPMENT
LA MAISON DU POULET		SALAM TURKEY	TURKEY BREEDING
THE DELICE OF TURKEY	TURKEY BREEDING	SALZA	POULTRY SLAUGHTER
MADEC	PROCESSED POULTRY MEAT PACKAGING	SAPAK KOUTOUBIA	PROCESSED POULTRY MEAT BREEDING &
MANI AGRI	EGGS TURKEY BREEDING	SAVOB	POULTRY FEEDS BREEDING & POULTRY
TURKEY MARKET		SELIMEK	FEEDS POULTRY FEED
MARKLA DISTRIBUTION	PROCESSED POULTRY MEAT TURKEY	SINEV	
MOROCCO TURKEY	FARMING	SNV POULTRY FEED Temara	BREEDING, BREEDING CHICKEN, TURKEY & POULTRY FEED
MAVIC	BIRTH	SOGAVI	EGGS AND DERIVED PRODUCTS EGG
MERSURGEL	PROCESSED POULTRY MEAT PROCESSED	POULTRY SOCIETY FASSI	PACKAGING EGG PACKAGING EGG
MIPROMER	POULTRY MEAT TURKEY FARMING	SALLOUI POULTRY SOCIETY	PACKAGING EGG PACKAGING
O 'TURKEY		SOCIETE OEUF HANANE ET ADDIBA 136	PROCESSED POULTRY MEAT POULTRY
FLAP EGGS	PACKAGING OF EGGS POULTRY	SOCIETE ORIENTAL OEUFS	FEED
100 OMNIA INTAJ	FEED	SODIVIAS	
101 OPC DISTRIBUTION	EGG PACKAGING	SOBALIM	
Dar Bouazza		SOGAVI	BIRTH
Taza		SOMACOPA	POULTRY EQUIPMENT
Ait Ourir		SOMACOV	BIRTH
Agadir		SOMADIET	POULTRY EQUIPMENT
OVO RIENTAL	EGGS AND DERIVED PRODUCTS	SOMAFACO	PROCESSED POULTRY MEAT
OVODIS	EGG PACKAGING EGGS AND	SOMAPRA	POULTRY FEED
OVOFRAIS	DERIVED PRODUCTS EGG	Ifrane	
OVOTEC	PROCESSING EGGS AND DERIVED	POULTRY FEED Dirty	
OVOVITAL	PRODUCTS CHICKEN FARMING	SOMAVIAN POULTRY	POULTRY SLAUGHTER & POULTRY FEED
CHICKEN PALACE		SOMIV	POULTRY SLAUGHTER
PATY'S	PROCESSED POULTRY MEAT TURKEY	SONABETAIL	POULTRY FEED
TURKEY CHICKEN	FARMING	SONAVIC	BIRTH
CHICKEN MION MOROCCO	CHICKEN BREEDING	SONAVIDET	CHICKEN BREEDING
ROYAL CHICKEN	CHICKEN BREEDING	SONEL	CHICKEN BREEDING
RAHMA CHICKENS	CHICKEN BREEDING	SOPOMAR / ETS MAGHFOUR	BIRTH
POUSSIMAR	BIRTH	SOPRINA / EURAFRIC	BIRTH
BOUFEKRANE CHICK	BIRTH	SOPROMAL	BREEDING & FEED FOR POULTRY CHICKEN
DOUKKALA CHICK	BIRTH	SOUSS MOUAD (SOS CHICKEN)	FARMING
Saidia		SOVAPEC	POULTRY FEED
Benslimane		STE AFRIC TURKEY	CHICKEN BREEDING
PRODELA	POULTRY FEED & POULTRY EQUIPMENT	SUDALIM	POULTRY FEED
PRODELA PREMIX	POULTRY FEED	SUDAVI	BIRTH
PROMALI	POULTRY MEAT	SOUTH	BIRTH
PROMAVI	BIRTH	TANTASAR	POULTRY FEED
PROVIMAC	POULTRY FEED	TIMAC AGRO MOROCCO	POULTRY FEED

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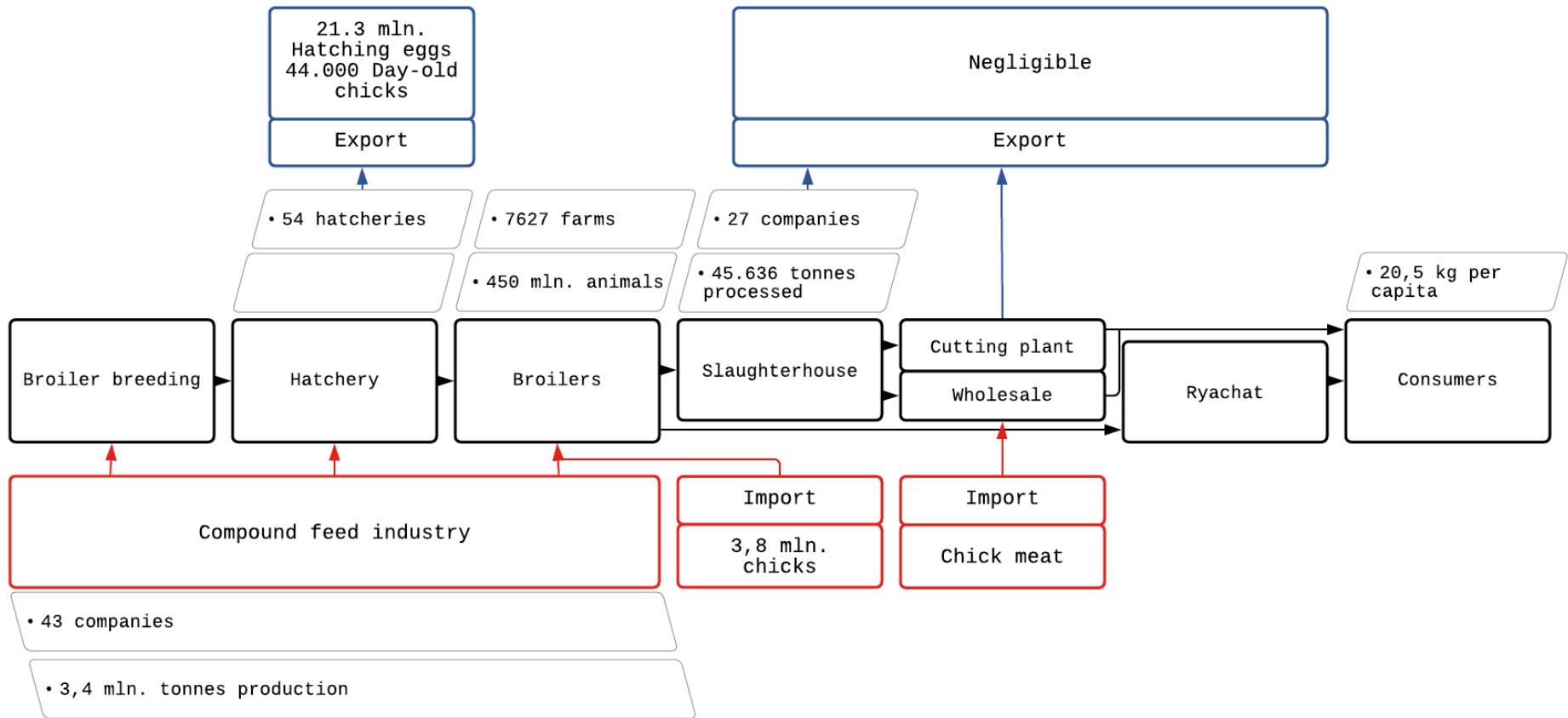
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Annex I Moroccan poultry sector historic overview

		Unit	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Production	Flesh chicks	Millions of birds	350	380	350	340	380	450	400	490	450	480	380
	laying hens (in millions)	Millions of birds	14	20	15	15,6	20	16	14	14	15	16	15
	Consumption eggs	Billion	3,7	4,3	4,3	4,5	5	5,1	4,1	5,5	5,8	6,1	5,5
	Poultry Feed	Million metric tonnes	2,6	2,9	2,8	2,75	3	3,2	2,75	3,3	3,4	3,7	3
	Poultry meat through slaughterhouse	Metric tonnes	30.67 4	36.21 4	38.04 6	35.867	42.63 5	42.797	39.99 2	44.96 3	45.63 6	55.49 4	46.710
Import	Broiler Day-old chicks	Thousands	2.981	2.685	2.848	2.653	3.404	3.537	3.926	3.540	3.835	3.739	4.160
	Broiler hatching eggs	Thousands	-	-	-	-	-	-	2828	-	-	-	-
	Layer Day-old chicks	Thousands	279	183	219	229	220	168	216	167	170	132	134
	Layer Hatching eggs	Thousands	-	-	-	-	-	-	1207	-	-	-	-
	Consumption eggs	Thousands	-	-	-	-	-	-	4658	-	-	-	-
Export	Broiler hatching eggs	Thousands	3.266	6.566	6.692	10.29 6	13.235	16.86 0	10.476	18.497	21.330	27.46 0	44.79 6
	Broiler Day-old chicks	Thousands	841	1.467	1.889	2.332	2.412	225	222	302	44	10	175
	Consumption eggs	Thousands	-	-	-	-	14176	6010	-	1783	563	33	-
Prices	Chicken selling price	Dhs/kg Alive	11,2	12,25	13,4	13,4	12,5	12,4	13,5	11,5	11,7	11,9	10,6
	Consumption eggs	Dhs/oeuf	0,64	0,67	0,82	0,79	0,66	0,76	0,98	0,7	0,75	0,58	0,69
Consumer patterns	Poultry meat	Kg./person/year	17,2	17,8	16,7	16	16,9	18,9	17,4	19,7	20,5	22,1	19,2
	Eggs	Egg/person/year	138	154	152	156	168	169	140	180	188	195	177
Cumulative investments		Billions of Dhs	9,4	9,8	9,8	10	10,4	11	11,3	12	12,9	13,5	13,7
Turnover		Billions of Dhs	23,2	28,3	29,6	29,8	27,9	29,6	29,1	28,5	31	32,5	27,4
Direct jobs		Thousands	110	120	115	113	123	136	120	145	150	160	140
Indirect jobs		Thousands	250	270	255	250	280	310	280	330	345	370	320

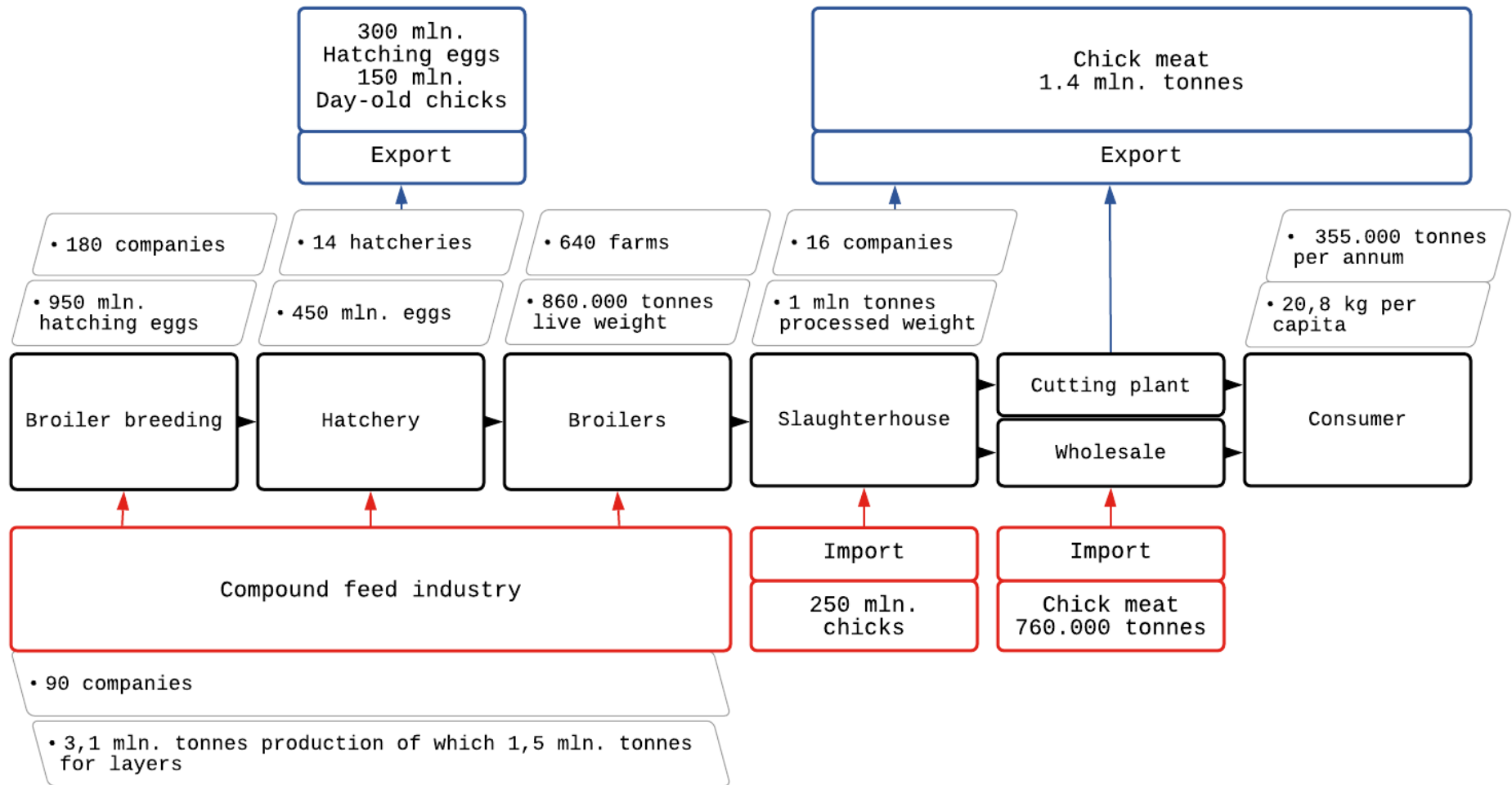
Sources: (FISA, 2018)

Annex II: Morocco Broiler Value Chain 2018



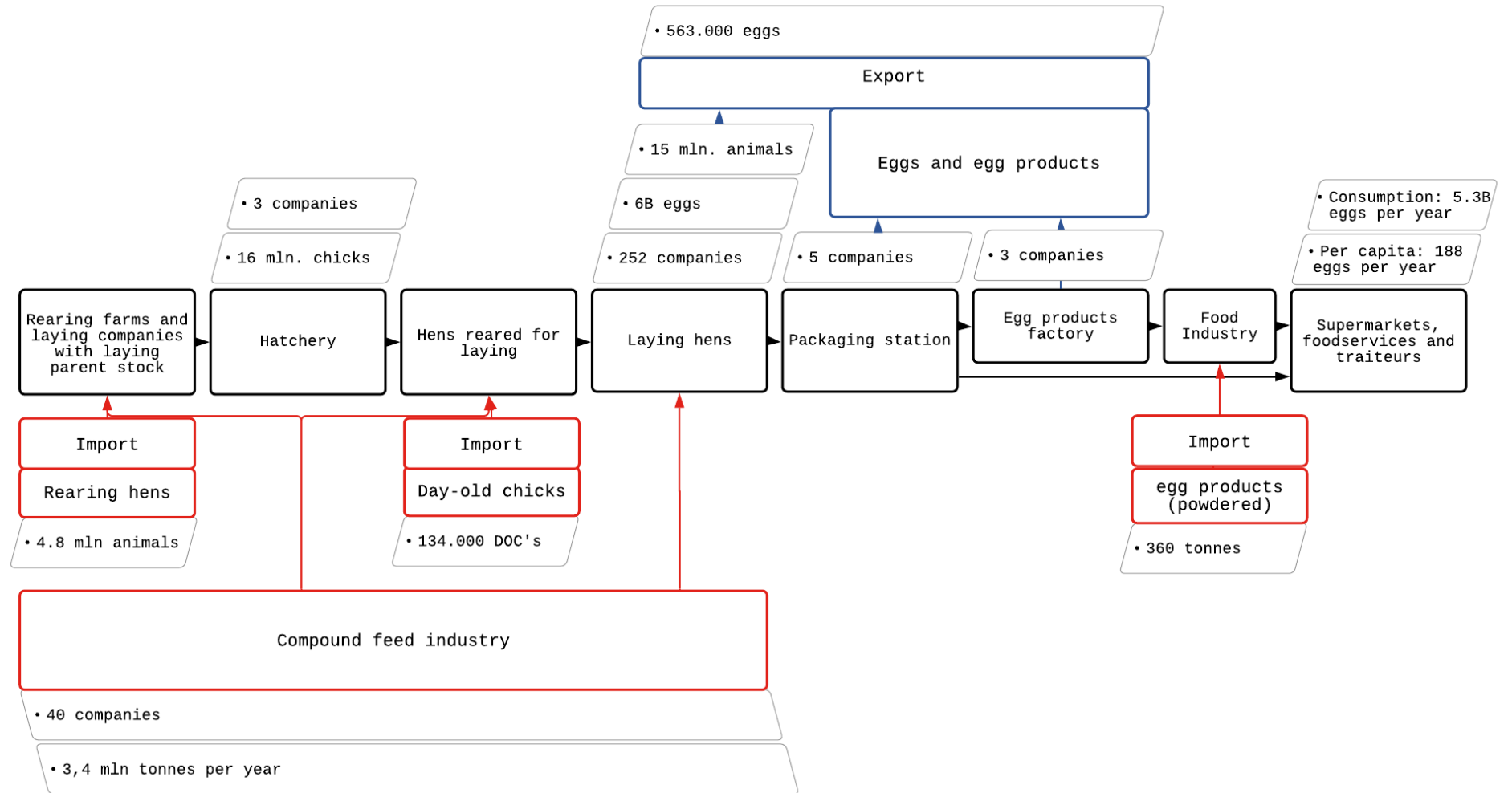
Sources: (FISA, 2018) (APV, 2018)

Annex III: Dutch Broiler Value Chain 2018



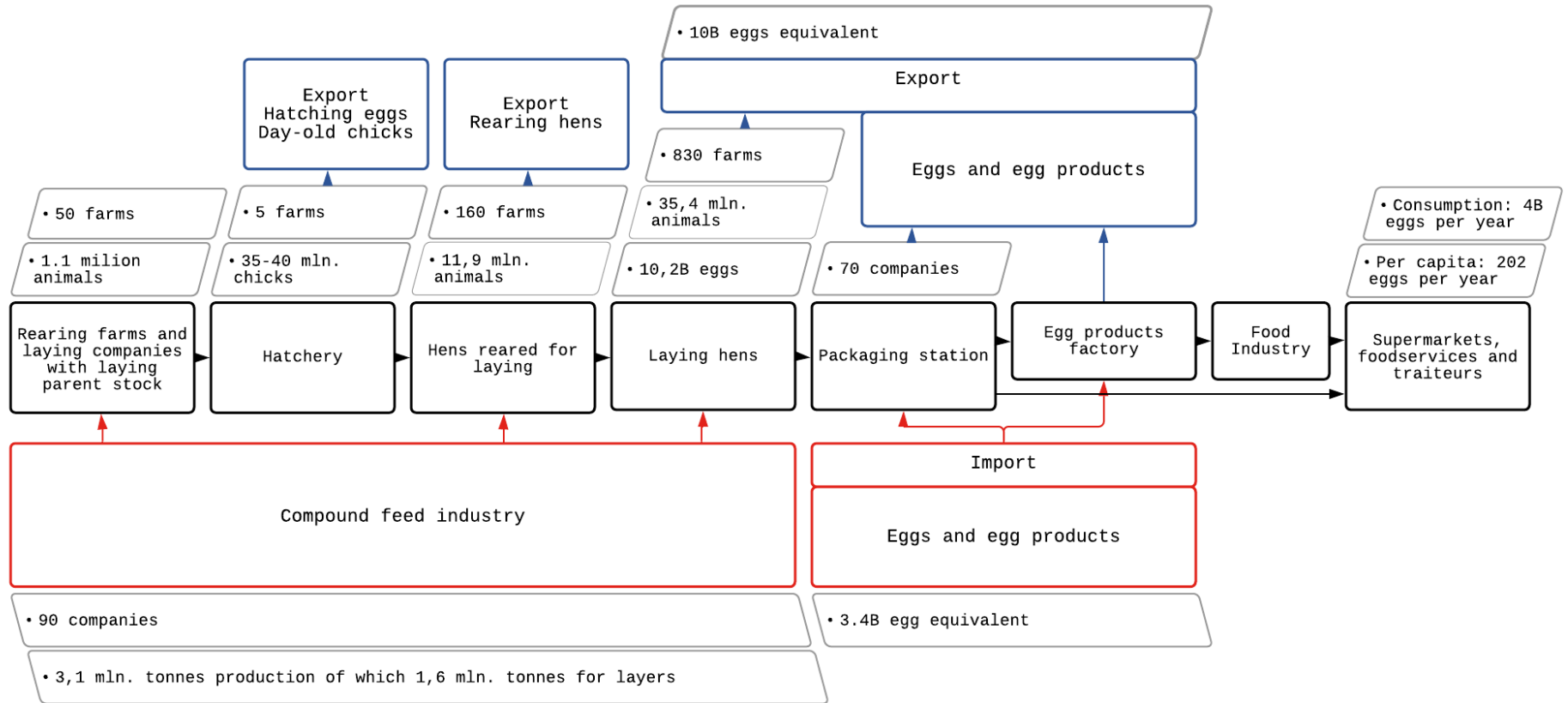
Sources: CITATION CBS18 \I 2057 (CBS, 2018) CITATION NeP18 \I 2057 (NePluVi, 2018) CITATION Nev18 \I 2057 (Nevedi, 2018) CITATION WUR18 \I

Annex IV: Moroccan Layer Value Chain 2018



Sources: (FISA, 2018) (ANPO, 2018)

Annex V: Netherlands Layer Value Chain 2018



Sources: CITATION Avi19 \I 2057 (Avined, 2019) CITATION CBS18 \I 2057 (CBS, 2018) CITATION Voo18 \I 2057 (Voorzieningsbalans eieren, 2018) CITATION Hor19 \I 2057 (Horne, 2019)