ANALYSIS
OF THE BEEF SUPPLY CHAIN IN ARGENTINA
WITH FOCUS ON GRAN CHACO REGION
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CONSULTANTS: SEBASTIÁN SENESI AND MARCOS DAZIANO
BY REQUEST FROM MESA ARGENTINA DE CARNE SUSTENTABLE

The work was entrusted by the Tropical Forest Alliance (TFA) to the Argentinian Roundtable on Sustainable Beef (MACS) and developed by the Faculty of Agronomy of the University of Buenos Aires (FAUBA).

Special thanks to the researchers of the FAUBA, Sebastián Senesi and Marcos Daziano, and to all the stakeholders that were part of the development of this document.

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www.agro.uba.ar
1. GLOBAL AND LOCAL CONTEXT

In a global context of increased volatility for agricultural commodity prices, with an increase in average prices at around the record prices seen during the end of the 2000’s, beef is facing a scenario where:

» Supply and demand for domestic and international markets are increasing

» Price scenarios have become more complex, because animal protein prices have, in general, increased less in percentage than feed prices

» World-class beef products remain strongly demanded at high prices, with a tendency towards further growth

In the meantime, the situation in Argentina regarding beef production has been somewhat stagnant on average for the past seven decades, even though a true “boom and bust cycle” can be observed during this period. This has been typically a market where most of the beef produced has been sold in the domestic market, although recent institutional changes have created growth in beef exports. This has, in turn, generated movements all along the system, from production to consumption and exports, thus making this system an attractive one in terms of its potential for the reactivation of the full use of its installed capacity, while becoming interesting for the entrance of new players into the business.

In this sense, when analyzing the amount of players participating in the system, Argentina’s beef sector is highly atomized at every single stage within it with almost 200 thousand farmers, 500 slaughterhouses (including federal, provincial and municipal abattoirs), 200 tanneries and over 40 thousand points of sale including butcher shops, supermarkets and other retailers. Perspectives towards the future are unclear, as there is potential for increased governmental intervention which will distort the market and cause the sector to fall into one of the several downcycles observed over the past 70 years.

About half of the participants (46%) in the sector expect 2022 to be a better year than the past two years in terms of turnover and prices obtained. This shows in the farmers’ investment intentions which are positive for about half of them (49%, according to a recent survey from CREA). At the same time, abattoirs have increased their use of installed capacity that was previously idle, and exports had up until last year steadily increased.

The Gran Chaco Region occupies most of the Northern part of Argentina (Map 1), stretching across the provinces of Catamarca, Chaco, Córdoba, Corrientes, Entre Ríos, Formosa, Jujuy, La Rioja, Mendoza, Salta, San Juan, San Luis, Santa Fe, Santiago del Estero and Tucumán.
The Gran Chaco Region is located in South America, occupying parts of Argentina, Bolivia, Brazil and Paraguay. It is the second largest forest in the continent, after the Amazon rainforest.

The Argentine section of this biome stretches North to South from western Salta and all of Formosa to northern San Luis and East to West from western Corrientes to eastern La Rioja and San Juan.

This region has been gaining importance in beef production over the past 3 decades as the Pampas have shifted towards more crop production. The Tropical Forest Alliance seeks to better understand the current market status of the beef value chain, with an identification of the key actors and trade flows for both the domestic and global markets for this commodity. This analysis will enable TFA to develop a markets-based approach by aligning critical mass to eliminate habitat conversion from these domestic and global supply chains.

2. CATTLE PRODUCTION IN ARGENTINA AND GRAN CHACO

Argentina’s total stock added up to 56.7 million heads in 2022, out of which 53.4 million heads (94%) were destined to beef production. The heads of cattle destined to beef in the Gran Chaco Region represent 33% of the total heads in the country. Graph 1 shows these figures.

**Graph 1. Stock in Argentina by Type of Production**
March 2022, Million heads of cattle.

- **Total** 56.7
- **Dairy** 3.4
- **Beef** 53.4 (94%)
- **Gran Chaco** 18.5 (33%)
- **Rest** 34.9 (62%)

» Out of 56.7 million heads of cattle, 94% are destined to beef production

» 33% of the heads of cattle destined to beef production in Argentina are located in Gran Chaco

» The predominant feeding system in Gran Chaco is grazing with 94% of the animals being raised in these systems

% of animals on pasturage:
- Dairy: 95%
- Beef: 94%
- Gran Chaco: 96%

* Pastureland cattle is mainly raised on grass and may or may have grain supplementation.
Source: Sebastián Senesi & Marcos Daziano (2022) based on SENASA
Beef production in Argentina stands at around 3 million tons. The last fifteen years have been marked by a cycle of divestment and stock reduction between 2006 and 2011 and a cycle of reinvestment and stock growth since then and until 2020, although 2021 was a down year. From 2012 to 2022 beef cattle stock grew by 15% to 53.4 million heads, while the number of heads slaughtered increased by just 13.5% to almost 13 million heads from 2012 to 2021. At the same time, the stock in the Gran Chaco region has grown by 53% to over 18 million heads.

The following graphs show the evolution of Argentina’s herd size since 2008. Graph 2 shows the evolution of the stock in the country between 2008 and 2022, while Graph 3 shows the stock by province in 2022 and Graph 4 shows the build-up of the cattle stock in Gran Chaco by province.

**Graph 2. Evolution of stock in Argentina between 2008 and 2022**

<table>
<thead>
<tr>
<th>Year</th>
<th>Stock (Million heads)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>54.14</td>
</tr>
<tr>
<td>2009</td>
<td>50.91</td>
</tr>
<tr>
<td>2010</td>
<td>46.29</td>
</tr>
<tr>
<td>2011</td>
<td>44.64</td>
</tr>
<tr>
<td>2012</td>
<td>46.42</td>
</tr>
<tr>
<td>2013</td>
<td>47.48</td>
</tr>
<tr>
<td>2014</td>
<td>48.15</td>
</tr>
<tr>
<td>2015</td>
<td>47.98</td>
</tr>
<tr>
<td>2016</td>
<td>49.14</td>
</tr>
<tr>
<td>2017</td>
<td>49.99</td>
</tr>
<tr>
<td>2018</td>
<td>51.24</td>
</tr>
<tr>
<td>2019</td>
<td>51.66</td>
</tr>
<tr>
<td>2020</td>
<td>51.06</td>
</tr>
<tr>
<td>2021</td>
<td>52.59</td>
</tr>
<tr>
<td>2022</td>
<td>53.36</td>
</tr>
</tbody>
</table>

Source: Sebastián Senesi & Marcos Daziano (2022) based on data from SENASA, Minagri and Provincial Statistics.
In terms of categories, the largest number of heads of cattle by far are cows, which represent 41% of the total stock with 21.8 million heads. 35% of these heads are in the Gran Chaco Region.
Graph 5 shows this categorization by region. It is of great importance to state that out of all the cattle that is moved from farm to farm in the region, 30% of the animals are shipped to farms outside of Gran Chaco in order to fatten and/or be slaughtered.

This means that, for the year 2021, more than a million heads were moved from the Northernmost provinces to provinces such as Buenos Aires, Entre Ríos and Southern Santa Fe and Córdoba.
GRAPH 6. CATTLE MOVEMENT IN GRAN CHACO

30% of the stock of cattle heads move from Gran Chaco to other parts of the country.

Corrientes is by far the province that “exports” the most animals to the rest of Argentina with 45% of its stock...

...which represent 70% of the total heads of cattle that are moved.

Jujuy, Salta and Tucumán (the northernmost provinces) move less than 4% of their cattle.

These movements become of key importance further along the supply chain because many agents operating outside Gran Chaco depend on the influx of cattle from this region. This is particularly true for export markets seeking heavier animals which are the trademark product from Corrientes for example.

Due to the uncertain perspectives that farmers have of their near future coupled with rampant inflation, they have started holding cows, which has increased the total stock of this category by 2.8% since 2017, a trend that is expected to continue in the near future. This will, in turn, cause the total stock to increase as well, as more mothers will produce more offspring.

ARGENTINA IS A COUNTRY WHERE THE MOST IMPORTANT CATTLE ACTIVITY IS PRODUCING CALVES.

Graph 7 shows the evolution of the stock of cows in Argentina between 2008 and 2022. It is important to understand that Argentina is a country where the most important cattle activity is producing calves. This means that in most of the country, the predominant type of farm are cow-to-calf operations.

Map 2 shows this regionalization, where gray areas are those where Cow-to-calf operations are predominant, orange areas are those where Calf-to-steer (fattening) farms are predominant and yellow areas are mixed. Added to this, almost the entirety of the animals in beef production are raised on pastureland. This figure stands at 95% for the country as a whole and it drops to 94% for the Gran Chaco Region. Map 3 shows the number of animals per department in Argentina.
The largest part of the area is occupied by Cow to Calf operations.

In Argentina, these farms are predominantly located in less fertile areas.

Calf to Steer operations have shifted, from being strictly pasture-based in more fertile areas towards more intensification and geographical diversification.

A recent process of holding on to cows and heifers has changed some yellow areas into grey areas.

The majority of the area in Gran Chaco is either grey or yellow, which means that the area is more prone to producing calves, rather than steers.

The highest concentrations in terms of heads of cattle occur in the central and northeastern parts of the country.

Gran Chaco also has most of its existences towards the East.
As can be observed, there are heads of cattle in almost every single department in Argentina, although there are pockets of high density in the Central and Northeastern part of the country, with red and blue areas being the ones with the highest number of heads.

These animals occupied an area of roughly 71 million hectares in 2018. The evolution of this figure since 2008 can be observed in Graph 8.

Graph 9 shows the total area used for cattle by adding up natural grasslands and pastures, which can be either annual or perennial according to the species that make them up.

In fact, the largest pockets of animals in feed-lots are associated with either a large availability of feedstock (high-yield agriculture areas, where corn and soy meal are readily and abundantly available) and/or the proximity of a large urban area, as is the case of large feed-lots located near the cities of Salta and San Salvador de Jujuy.

THESE ANIMALS OCCUPIED AN AREA OF ROUGHLY 71 MILLION HECTARES IN 2018.

The number of animals being fattened in feed-lots has also been increasing over the past 2 decades. Map 4 shows the number of heads of cattle in feed-lots by department. As can be observed, the distribution of these animals is not as even as those on pasturelands.
Graph 9. Total area used for cattle grazing in Argentina in 2018

Million hectares

Grassland: 71.02 (90.6%)
Annual forage: 3.74 (4.8%)
Perennial forage: 3.66 (4.7%)
Total: 78.42

Source: Sebastián Senesi & Marcos Daziano (2022) based on data from INDEC.

Map 4. Heads of cattle in feed-lots by department

- Feed-lots are located more unevenly than pasture-based production
- There are pockets of high density, mostly associated to large urban areas and/or readily available feed supply (notably corn and soybean meal)

Source: Sebastián Senesi & Marcos Daziano (2022) based on SENASA
Argentina’s cattle farms are highly atomized with almost 200 thousand farmers. Despite this, the large cattle farmers, concentrate a higher percentage of the total heads. **Graph 10** shows that 61% of the animals are raised in professional farms (those with a herd size over 500 heads).

When we analyze the Gran Chaco Region, the number of heads in professional farms jumps up to two thirds of the total heads. The number of heads in feed-lots stands at 6% when we consider the rotation of these farms, where the shorter cycles allow farmers to fatten many more animals than on pastureland.

**Graph 11** shows this data. It must be stated, that even though we are talking about a region of the country, this is not homogeneous. In fact, there are great disparities between provinces and between departments within each province. An example of this is the percentage of animals raised in professional farms across the different provinces. As **Graph 11** shows, the region’s professional farms add up to 64% of the total stock, a figure somewhat higher than the country’s average. These farms represent less than 15% of the total cattle farms in the region.
**GRAPH 11. CATTLE HEADS DESTINED TO BEEF PRODUCTION IN GRAN CHACO BY FARM SIZE**

Million heads of cattle on pastureland, Million heads of cattle for feedlot (including rotation).

<table>
<thead>
<tr>
<th></th>
<th>Below 100</th>
<th>Between 100-250</th>
<th>Between 250-500</th>
<th>Above 500</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cows</td>
<td>0.8</td>
<td>1.6</td>
<td>2.2</td>
<td>2.7</td>
<td>10.7</td>
</tr>
<tr>
<td>Bulls</td>
<td>0.1</td>
<td>0.1</td>
<td>0.1</td>
<td>0.3</td>
<td>0.6</td>
</tr>
<tr>
<td>Heifers</td>
<td>0.3</td>
<td>0.3</td>
<td>0.4</td>
<td>1.6</td>
<td>2.6</td>
</tr>
<tr>
<td>Steers</td>
<td>0.2</td>
<td>0.4</td>
<td>0.4</td>
<td>1.5</td>
<td>2.4</td>
</tr>
<tr>
<td>F. Calves</td>
<td>0.2</td>
<td>0.2</td>
<td>0.3</td>
<td>1.2</td>
<td>1.9</td>
</tr>
<tr>
<td>M. Calves</td>
<td>0.1</td>
<td>0.1</td>
<td>0.1</td>
<td>1.2</td>
<td>1.4</td>
</tr>
</tbody>
</table>

Source: Sebastián Senesi & Marcos Daziano (2022) based on SENASA

Graph 12 shows the distribution by province of the 100 thousand beef farms in the Gran Chaco region, while Graph 13 shows their segmentation.

**GRAPH 12. DISTRIBUTION OF BEEF FARMS IN GRAN CHACO BY PROVINCE**

2022, Number of farms.

Source: Sebastián Senesi & Marcos Daziano (2022) based on SENASA
On average, large farms with over 500 heads represent just 10% of the total farms in the provinces that make up Gran Chaco.

Corrientes, San Luis and Santa Fe have the highest number of large farms...

...while Jujuy, La Rioja, San Juan and Tucumán have the lowest number of large farms.

61% of the farms in these provinces have less than 100 heads of cattle.

Source: Sebastián Senesi & Marcos Daziano (2022) based on SENASA
There are almost 500 slaughterhouses in Argentina, adding up to an installed capacity of close to 20 million heads per year. Out of the total, only 69 comply with export requirements and have the possibility to export (14% of the total). Although they are export-approved they can also sell in the domestic market. These are typically known as “Class A” abattoir and they are able to produce up to 20% of the total industry output, with 26% of the installed capacity. “Class B” abattoirs are those that sell in the domestic market exclusively and do so on a national scale, they add up to 163 (or 33% of the total), while “Class C” are those that are confined to a specific province. Finally, there are also municipal and rural slaughterhouses that are often non-approved by SENASA (National Service for Agri-food Safety and Quality). This means that 86% of the abattoirs in Argentina must focus on the domestic market exclusively, and some are confined to small areas.

Meanwhile, processing facilities can also be classified as Cycle 1, Cycle 2 or Full cycle, depending on the type of product they produce. Cycle 1 facilities slaughter cattle and produce half carcasses, while Cycle 2 facilities take those half carcasses and produce beef cuts. Full cycle facilities consolidate both types within the same facility. These facilities can also be approved for export or not.

The fact that the largest part of the industry produces half carcasses has a severe impact on the commercial chain, which creates the necessity for beef retailers to purchase this product and produce the cuts themselves. Added to this, the high degree of informality at this link in the chain creates double standards in fiscal and sanitary terms, with evasion and sanitation issues being a regularity. Statistics for 2021 show that 1.8 million heads of cattle were slaughtered in Gran Chaco, producing just under 400 thousand tons of beef.

It is worth noting that 82% of the slaughter was done at SENASA approved abattoirs (federal transit), which is a drop from the national figure of 85%. Non-SENASA approved abattoirs can either be approved for provincial or municipal transit and are thus limited to selling their product in the jurisdiction for which they have been approved.

Graph 14 shows the installed capacity for cattle slaughtering in Argentina and Gran Chaco by exporting capability and type of transit approval. As stated before, 26% of the installed capacity nationwide is apt for exporting, while this figure drops to 21% for Gran Chaco.
The evolution of the slaughter can be observed in **Graph 15**, which shows that over the past few years, the number of heads slaughtered has increased from under 11 million heads in 2011 to just under 13 million heads in 2021 on a national scale. This represents a 19% increase over the period. This evolution shows that the number of heads being slaughtered has grown at an annual average of 1.8%. This represents a production of just under 3 million tons in 2021.

**GRAPH 14. SLAUGHTERING CAPACITY IN ARGENTINA AND GRAN CHACO BY ExportING CAPABILITY AND TYPE OF APPROVED TRANSIT**

Million heads of cattle per year.

![Graph showing slaughtering capacity by export approval](image)

Source: Sebastián Senesi & Marcos Daziano (2022) based on data from SENASA, Minagri and Provincial Statistics.

**GRAPH 15. EVOLUTION OF CATTLE SLAUGHTERING IN ARGENTINA BETWEEN 2011 AND 2021**


![Graph showing cattle slaughter evolution](image)

Source: Sebastián Senesi & Marcos Daziano (2022) based on data from SENASA, Minagri and Provincial Statistics.
Graph 16 shows the evolution of the amount of beef produced in Argentina between 2011 and 2021. Graph 17 shows the evolution of the slaughter for the Gran Chaco region where the increase was higher than the national figure with just a 34% increase between 2011 and 2021.

**GRAPH 16. EVOLUTION OF BEEF PRODUCTION IN ARGENTINA BETWEEN 2011 AND 2021**

Million tons

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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Tons</td>
<td>2,50</td>
<td>2,59</td>
<td>2,82</td>
<td>2,67</td>
<td>2,72</td>
<td>2,78</td>
<td>2,85</td>
<td>2,90</td>
<td>2,97</td>
<td>3,17</td>
<td>2,94</td>
</tr>
</tbody>
</table>

**GRAPH 17. EVOLUTION OF CATTLE SLAUGHTERING IN GRAN CHACO BETWEEN 2011 AND 2021**


<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Heads</td>
<td>1,37</td>
<td>1,59</td>
<td>1,71</td>
<td>1,71</td>
<td>1,76</td>
<td>1,61</td>
<td>1,70</td>
<td>1,77</td>
<td>1,86</td>
<td>2,07</td>
<td>1,84</td>
</tr>
</tbody>
</table>

Source: Sebastián Senesi & Marcos Daziano (2022) based on data from SENASA, Minagri and Provincial Statistics.
Graph 18 shows the evolution of the amount of beef produced in Gran Chaco. When analyzing slaughtering by province, it is clear that Buenos Aires is the leader by far with 51% of the slaughter, while Santa Fe and Córdoba add up to 24%, which means that these three provinces are responsible for 75% of the national slaughter. Graph 19 shows this data.

![Graph 18. Evolution of Beef Production in Gran Chaco between 2011 and 2021](image)

Source: Sebastián Senesi & Marcos Daziano (2022) based on data from SENASA, Minagri and Provincial Statistics.

![Graph 19. Slaughtering by Province](image)

More than half of the slaughter takes place in the Province of Buenos Aires

There are 8 partial or total Gran Chaco provinces in the TOP 10...

...although the actual region slaughters 14% of the heads

Source: Sebastián Senesi & Marcos Daziano (2022) based on data from SENASA, Minagri and Provincial Statistics.
As stated before, this is a highly atomized segment, with about 500 slaughtering facilities in the country. In fact, the TOP15 abattoirs on a national level concentrate about 28% of total slaughter. Graph 20 shows slaughtering by company for 2015 and 2021. Meanwhile, the TOP10 abattoirs in Gran Chaco add up to under 8% of the national slaughter, but when only taking this region into consideration, the concentration builds up, as they represent 56% of the slaughter. Graph 21 shows this data.

**GRAPH 20. SLAUGHTERING BY COMPANY IN ARGENTINA**


![Graph 20](image)

Source: Sebastián Senesi & Marcos Daziano (2022) based on data from SENASA, Minagri and Provincial Statistics.

**GRAPH 21. SLAUGHTERING BY COMPANY IN GRAN CHACO**


![Graph 21](image)

Source: Sebastián Senesi & Marcos Daziano (2022) based on data from SENASA, Minagri and Provincial Statistics.
When considering the Gran Chaco region, it presents a structural deficit between its consumption and production. Between the years 2011 and 2015 this figure stood consistently at over 200 thousand tons, with a peak of 255 thousand tons in 2013. Since then, that deficit has slowly but surely decreased progressively. Despite this figure been reduced, the fact that there exists a deficit means that the Region is a net “importer” of beef from other regions of the country. Graph 22 shows this deficit for 2015 and 2021, where it has decreased.

**GRAPH 22. BEEF PRODUCTION AND CONSUMPTION IN GRAN CHACO**

2015-2021, Thousand tons of beef with bone.

<table>
<thead>
<tr>
<th>Year</th>
<th>Consumption</th>
<th>Production</th>
<th>Deficit</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>616.1</td>
<td>394.9</td>
<td>221.2</td>
</tr>
<tr>
<td>2021</td>
<td>539.3</td>
<td>412.8</td>
<td>126.5</td>
</tr>
</tbody>
</table>

Source: Sebastián Senesi & Marcos Daziano (2022) based on data from SENASA, Minagriand Provincial Statistics.
4. BUYERS AND MARKETING CHANNELS FOR BEEF AND LEATHER IN ARGENTINA AND GRAN CHACO

4.1 BEEF: DOMESTIC DRIVERS

Beef sales in the domestic market added up to 2.4 million tons in 2021. As previously stated, the main domestic beef buyers are highly atomized, with over 33 thousand butcher shops and almost 9 thousand other non-specialized retail points that sell beef among their products. Graph 23 shows beef sales by type of outlets in Argentina.

Graph 23. Domestic market by outlet

*Non-specialized retailers include supermakets of all sizes and convenience stores. Rest includes direct sales, institutional sales and food service.

Butcher shops represent a staggering 73% of total beef sales in Argentina (or 1.7 million tons in 2021), while supermarkets and other non-specialized retailers only add up to 20% (or just under 0.5 million tons in 2021), with the remainder being several other channels including direct sales, institutional sales and food service. This means that the commercial system is highly reliant on the neighborhood butcher, who typically has a very low scale, selling no more than 150kg of beef per day (some 55 tons per year).

However, in the 20% that is channeled through supermarkets, the amount of players is significantly lower and with a higher concentration: just 6 companies own the TOP 12 supermarket brands in the country, with Carrefour (29% share), Cencosud (21%), Coto (20%) the TOP 3 firms and Casino (7%), La Anónima (7%) and Walmart (5%) the followers. It is worth noting that, in terms of the Gran Chaco region, the large supermarket chains are not as present as in the Central and Southern parts of the country, which means that the local butcher is even more relevant for this area, going up from 80% of the points of sale at a national level to 86% at the regional level. It is also worth noting that the prevalence of large supermarket chains also decreases from 16% of the points of sale at a national level to 10% at a regional level. Graphs 24 and 25 show the number of points of sale by type in Argentina and Gran Chaco.

GRAPH 24. DOMESTIC BEEF RETAIL STRUCTURE

<table>
<thead>
<tr>
<th>Points of Sale</th>
<th>Total</th>
<th>Butcher shops</th>
<th>1 point</th>
<th>2 to 9 points</th>
<th>10 to 60 points</th>
<th>Over 60 points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-specialized retailers</td>
<td>42,306</td>
<td>33,634</td>
<td>5,871</td>
<td>867</td>
<td>590</td>
<td>1,344</td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
<td>68%</td>
<td>10%</td>
<td>7%</td>
<td>16%</td>
<td></td>
</tr>
</tbody>
</table>

* Non-specialized retailers include supermarkets of all sizes and convenience stores. Rest includes direct sales, institutional sales and food service.
GRAPH 25. GRAN CHACO BEEF RETAIL STRUCTURE

2019, Points of sale

<table>
<thead>
<tr>
<th></th>
<th>Total</th>
<th>Butcher shops</th>
<th>1 point</th>
<th>2 to 9 points</th>
<th>10 to 60 points</th>
<th>Over 60 points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-specialized retailers</td>
<td>9,478</td>
<td>8,215</td>
<td>87%</td>
<td>68%</td>
<td>10%</td>
<td>10%</td>
</tr>
</tbody>
</table>

* Non-specialized retailers include supermarkets of all sizes and convenience stores. Rest includes direct sales, institutional sales and food service.


GRAPH 26. BEEF AND SUB-PRODUCTS EXPORTS BY COMPANY IN ARGENTINA

2020, Million USD. Percentage of total beef and sub-products exports from Argentina.

<table>
<thead>
<tr>
<th>Company</th>
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Source: Sebastián Senesi & Marcos Daziano (2022) based on data from SENASA, Minagri and Provincial Statistics.
4.2 BEEF: INTERNATIONAL DRIVERS

Argentina has been slowly but steadily increasing its exports since the low point of 2011, surpassing 700 thousand tons in 2019 and 2020. The main markets have also suffered a dramatic change with the irruption of China and Russia as important buyers. The EU is still the most important market for high-value products, with an increasing participation of the US market.

Graph 26 shows the TOP10 exporters by company, which add up to 44% of total exports, while the TOP3 (in green) add up to almost about of that share.

Graph 27 shows the evolution of beef exports by country between 2011 and 2021 (fresh and chilled beef) where it can be observed that Chile and Germany are the top two players.

**GRAPH 27. EXPORTS OF BEEF (FRESH OR CHILLED) BY DESTINATION**

Source: Sebastián Senesi & Marcos Daziano (2022) based on data from SENASA, Minagri and Provincial Statistics.
In Graph 28, the evolution of the exports of frozen beef can be observed, where China has grown hugely to become the top destination. Finally, Graph 29 shows the exports of bovine offals where Russia and Hong Kong are the top destinations.
GRAPH 29. EXPORTS OF BOVINE OFFALS BY DESTINATION

Source: Sebastián Senesi & Marcos Daziano (2022) based on data from SENASA, Minagri and Provincial Statistics.

Source: Sebastián Senesi & Marcos Daziano (2022) based on data from SENASA, Minagri and Provincial Statistics.
A qualitative analysis was carried out in order to complement the quantitative analysis based on statistics and market information. The methodology for this qualitative analysis took two separate, complementary roads: a) short, general-themed interviews; and b) in-depth focused interviews.

A series of 20 short, non-structured interviews with key players in the industry were performed. This allowed us to obtain a general overview on how the system works and the particularities attaining the Gran Chaco Region. These general interviews supplied information which allowed us to better understand and use the statistical information obtained from different sources, particularly when it comes to estimating the highly informal nature of the system.

Added to this, there were 10 in-depth interviews with the most relevant slaughtering and retailing companies in the country. These in-depth interviews provided an insight into how the slaughter and retail segments of the system think. It is noteworthy that, while all of the participants expressed the importance of sustainability and traceability when buying live animals or meat products, just one abattoir and one supermarket actually have some sort of origin assurance.
Following are some strategic recommendations on how to engage potential collaborators in order to implement a verified deforestation-free beef commitment.

As the report mentioned, the number of players participating in the system, Argentina’s beef sector is highly atomized at every single stage within it with almost 200 thousand farmers, 500 slaughterhouses (including federal, provincial and municipal abattoirs), 200 tanneries and over 40 thousand points of sale including butcher shops, supermarkets and other retailers.

Perspectives towards the future are unclear, as there is potential for increased governmental intervention which will distort the market and cause the sector to fall into one of the several downcycles observed over the past 70 years.

The actuality of the cattle and meat system in Argentina presents a structural difficulty due to the atomization of its players to be able to coordinate a collective action in pursuit of non deforestation, added to the fact that the closure or difficulty in exporting generates a lack of incentives to incorporate mechanisms control and preservation of forests for an internal market.

This situation seems to expose the need for the Government (national o provincial) to coordinate a general plan for the entire sector, in full compliance with the National Forest Law and the possibility of creating strictly coordinated subsystems supported by the differential of beef from fields without deforestation.

In this sense, the National Government in August 2021 launched a National Livestock Plan sectored by region. In relation to the Gran Chaco Region, the lines of needs and solutions are related to the improvement in productivity indices (increase in the percentage of weaning, incorporation of technologies, improvement in the forage supply, increase in stock, etc.) and improvements in marketing with a focus on small producers. This initiative is aligned to improve the cattle “business” and therefore reduce the pressure on the forests.

This last strategy seems to be more achievable in the Chaco Region than at the National Level. The strategy requires involving professional farmers (those with over 500 heads), which, as stated before, handle over 60% of the animals in the region and are no more than 5,000 farmers in the key departments. We believe it is possible to work on non-deforestation programs from the supply side in Gran Chaco, coordinated with abattoirs, traders, and retails. At the same time, it is necessary to implement a new strategy for the farms with less than 100 heads each one mainly improving production efficiency (calving and weaning percentage, application of good practices, traceability, etc.), fattening their calves, and formalizing marketing. This would improve the profitability of this type of farmer, minimizing the pressure on deforestation.

It is important to mention that any strategy for any of the types of producers analyzed should be based on formality and traceability. Any incentive program must comply with the corresponding legal framework and
facilitate the flow of information to give credibility to the proposal. All participants from the slaughtering and retail sectors in the interviews believe that origin based sustainability assurances are not going to be demanded by the domestic consumer for the near future, and in fact, 90% of the interviewees frame these demands in the long term.

There is a different case to be made for the export market, where meatpacking companies tend to follow the demands of the consuming market. If there’s a market for sustainable beef, with a premium in price, there will be supply from the Argentine companies, which will in turn generate a traction to the beginning of the supply chain. Slaughtering companies will enter some sort of origin-assurance protocol if it meets the demand of the export markets and if there’s either a price premium or a barrier. It is important to note that the role of China as a buyer with low standards could slow this process down.

Major retail players have most of their sales in the Central and Southern parts of the country, mostly acquiring cattle from that area. Hence, it would make sense for them to enter a deforestation-free initiative, which would cost them little effort given the amount of animals they buy from Gran Chaco appears to be very small. Moreover, large supermarkets, in terms of the Gran Chaco region, are not as present as in the Central and Southern parts of the country, which means that the local butcher is even more relevant for this area, going up from 80% of the points of sale at a national level to 86% at the regional level.

We believe further effort must be made to raise awareness of deforestation in Chaco to all the stakeholders in the beef business. Apart from this, some directed strategies towards key segments are necessary, particularly towards farmers, again including incentives for them to be on board with the initiative.

A medium-term strategy is a more traditional one, which is working with the demand. In our case we think it would be better to start with the export buyers and slaughtering companies, particularly those involved in quota-exporting schemes.

As a summary, we can mention that there are national mandatory legal frameworks (Forest Law) that should be complemented with differential strategies for the different types of farmers, added to the possibility of interacting with exporting abattoirs that are likely to obtain differential incentives and/or must attend to regulations coming from the purchasing countries.