



# **LIVESTOCK INDUSTRY IN VANUATU**

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## Acronyms

GDP	Gross Domestic Product
MALFFB	Ministry of Agriculture, Livestock, Forestry, Fisheries and Bio-Security
MFAT	Ministry of Foreign Affairs and Trade
MTTCNVB	Ministry of Tourism, Trade commerce and Ni-Vanuatu Business department
NLP	National Livestock Policy
NLSPAPMF	National Livestock Sector Policy Action Plan, Monitoring and Evaluation Framework
NSDP	National Sustainable Development Goals
OPSP	Overarching Productive Sector Policy
PNG	Papua New Guinea
SDG	Sustainable Development Goals
TC	Tropical Cyclone
TVET	Technical Vocation Education and Training
VLAB	Vanuatu Livestock Advisory Board
VBVCA	Vanuatu Beef Value Chain Analysis
VNSO	Vanuatu National Statistics Office

## Background

This research project report is a requirement as the core part of the official statistics course conducted by the New Zealand Statistics. Participants have to identify issues of importance in their country to produce a report with statistical evidence to support their topic of interest.

I will be discussing the livestock industry in Vanuatu on the view of livestock quantity from 2009 to 2016 and the challenges to meet the demand domestically and in the international markets.

According to Vanuatu Livestock Policy of 2015 to 2030, the government have identified some specific areas of development in the livestock production sector. As stated in the newly launched livestock policy, there are 16 thematic areas and policies covering livestock production, administration to the monitoring and Evaluation (Vanuatu National livestock Policy 2015-2030)

Vanuatu experienced a snap election in 2016. Most port folios in the government have changed with new elected members. The Ministry of Agriculture, Livestock, Forestry, Fisheries and Bio-security (MALFFB) also have a newly appointed minister. This new elected government drew up a 100 day plan and each ministry were tasked with having their own ministerial targeted plans to be achieved within the 100 day period.

The MALFFB has a new appointed minister and his focus was directed towards developing the livestock production of Vanuatu. The Livestock department is among the five departments that are under the Ministry of Agriculture. The MALFFB is one of the biggest ministries within the Vanuatu government. Each departmental activity are directed and coordinated by their separated policy and strategic plans that are channelled to meet the overall plan of the Ministry of Agriculture. These are spelt out in the current government 100 days plan which includes short and long term priorities (policies that will be achieved within the term of the government). The goals are being prioritized in three categories as follows:

1. One hundred days plan (where policies will be carried our within 100 days)
2. Medium Term plan (where the policies will be carried out within the reasonable time of 12 months)
3. Longer term priorities (for policies that will be achieved within the term of the government)

*(MALFFB Annual report, 2016, p. 5))*

Under the current government, the livestock department has undergone change in its organization to come up with the first ever National Livestock Policy (NLP) and their National Livestock Sector Policy Action Plan, Monitoring and Evaluation Framework that commence from 2015 to 2030. The policy addresses the challenges and shortcomings which livestock farmers and policy makers have struggled with since the country became independent over 35 years ago

As stated in the National Livestock Policy, The NLP is consistent with current government development policies, namely the overarching Productive Sector Policy (OPSP), the National Sustainable Development Plan (NSDP) which leads to addressing the Sustainable Development Goals (SDG). These are national and international obligations to be met by the Vanuatu government. The OPSP covers a wide range of issues with the livestock sub-sectors including smallholder farming, product hygiene, women and vulnerable groups.

The Vanuatu livestock advisory board (VLAB) must maintain a continuous dialogue for effective implementation and follow up of the policy, its operational fine-tuning, and its adaptation over time. This rested the responsibility on the VLAB that will provide guidance on how to report on the implementation and achievement of the policy. It will be important to communicate the policy and its implementation strategy to all stakeholders once it has been approved by the councils of ministers.

According to the Vanuatu Beef Value Chain Analysis (VBVCA) report of March 2014, the national livestock development plan has set a vision of reaching a national herd of 500,000 within a decade, but this was unrealistic. The finds stated that the most urgent need at hand was to restore land lost to farmers, increase accessibility and introduce a better pricing system for smallholders. Land lost to farmers as identified in the VBVCA report is an issue that MALFFB and the Livestock department are aware of. There are not too sure of how many hectares of farming land is being sold and been converted to commercial and residential lease. There are also constraints in the value for smallholder that needs to be addressed to provide better value to the smallholder.

## Literature Review

The “Vanuatu Beef Value Chain Analysis” was conducted in 2014 by the Ministry of Foreign Affairs and Trade (MFAT). The intention of this project was to identify the beef production in the country and how much value added is being done in the local market compare to the formal market. The VBVCA finding shows the decline in the production of beef due to the high demand of supply in the informal beef market, typically for ceremonies and festivals which cannot be estimated reliably and its annual offtake was estimated to be 11%. Data displayed in the VBVCA report comes from different industries such as the Agriculture, Livestock and Fisheries and Bio-security department, Ministry of Tourism, Trade commerce and Ni-Vanuatu Business department (MTTCNVB) and Small livestock farmers Associations.

There is the issue of inconsistency in livestock data. Some data are collected by the livestock department for their internal reporting, while others are ad hoc surveys and researches. Other factors as define in the VBVCA report that hinders greatly the consistency in livestock farming activities are issues of transportation of cattle from the farm to market in rural areas is expensive, access to finance for pasture improvements, etc.

## Research Question

Some of the research questions that will be considered in this research project are;

1. Has livestock production increased in Vanuatu since 2009
2. What percentage of total revenue contribution has livestock production made to GDP in the last 7 years (2009-2016)
3. Is livestock production increasing on all islands in Vanuatu?
4. What improvements to livestock production in the country can be made?

## Research Plan and Method

1. Research will be done with the Ministry of Agriculture and the Department of Livestock.
2. 2009 Population census report and 2016 Mini census report will be consulted due to the lack of alternative and consistent database.
3. The aim is to compile information relating to the livestock industry in Vanuatu through combining a range of datasets from the VNSO, Ministry of Agriculture and Department of livestock.
4. I will look at trends over time (since 2009) and see whether there has been an improvement in livestock productions and exports.

## Legal and Ethical Issues

Since 35 years of independence, the department of livestock finally has a National Livestock Policy. It has been a long journey for the department. The NLP is a product of various attempts taken to improve the livestock sector with reforms initiated to stimulate economic growth to achieve food security, but most have not created sustained impact and benefit due a large part to the lack of a long-term policy framework and support (*National livestock policy, p.5*)

The NLP leads the way to the recent National Livestock Sector Policy Action Plan, Monitoring and Evaluation Framework (NLSPAPMF). This document has been created in support of the newly designed policy as it spells out clearly the thematic areas and outlining the objectives including outputs and resources involved to achieve these long standing issues. The NLSPAPMF document highlighted under the thematic area “Monitoring and Evaluation” the capacity development of farmers to collect data and send them to the central database regularly so these data can be compiled and analyzed every 3 to 5 years. Even though there is no clear indication of which institution will take care of this Livestock database, the National Statistics Office is inserted as responsible agency to this output.

Confidentiality of data is also stressed in the M&E report as one of the strategy. It states that “Respect the sensitivity of some information that is provided to central agencies” which leads to the output of ensuring confidential information that may compromise business positions of certain business.

The population census is currently the main source of data for livestock. The 2009 and the latest 2016 mini census collected data on livestock by households. These data are being housed with the national statistics office and use in the overall reports to show the population of households owning livestock by different types of geographical location. The 2009 census provided livestock data at the island level, while the 2016 mini census go further by providing livestock information at the area council level. Both censuses capture total number of livestock and number of households owning livestock.

According to the statistical act under the subsection “secrecy of information” stated that *information relating to any person obtained shall be treated as strictly confidential and shall not knowingly be disclosed in any way except to authorize officers acting in the execution of any duty under the act (Vanuatu Statistical Act, 2006).*

All data from surveys and censuses are compiled and analyzed with precautions, ensuring confidentiality and privacy of household and individual data is kept confidential. The common method used for



collecting information is the “face to face” interviewed. The Head of households and household members are being interviewed by the enumerator directly. This allows for interviewers to get direct response from the household members. It also provides the opportunity for both the respondent and the interviewer to build an understanding and trust and ensuring that whatever information provided by the respondent is precise and trustworthy.

A secrecy form is sign by the interviewer before they commence work in surveys. This secrecy form is a contract that is sign between the interviewer and the NSO office prompting the interviewer to uphold the confidentiality of information and not allowing any of this information to be share between a colleague, family member or any other person apart from his supervisor and the Statistics office. A breach of this secrecy contract can have legal implications.

All censuses and surveys data has to be published in reports, monographs, factsheets, infographics, pocket books, etc. These data has to be in aggregated format to ensure confidentiality of information and are aggregated by sex, by age group, by area councils, etc. in that way, individuals and households are not being specifically identified.

## Data and Data Issues

The data used in this report is from the 2009 and 2016 census report, the quarterly statistical report from 2009 to 2016 and the National Account figures for 2009 to 2016. This different data sources are used to show the livestock trends in terms of its population and production. There has not been much input from the respective departments even though several attempts have been made.

Realistically, there is no organized livestock data available at the moment. Let alone a livestock database. The Department of Livestock and other departments under the Ministry of Agriculture are very poorly resourced by the government. This is an issue since independence. The impact is evident. Although there have been numerous attempts to get a livestock database in the 90s, but due the lack of skills transfer, the database is no long usable and therefore stored data cannot be retrieved.

Some funded projects have been contacted jointly with the department of livestock but with specific intention of achieving their end results but not directly to improve and strengthen the data collection initiative of livestock in Vanuatu.

## Data Analysis

Data collection is a great challenge for the department of livestock. There is no consistency in the collection of livestock data in the province and at the national level. The only livestock data that is currently available is the 2009 National Population and Housing Census and 2016 Post TC Pam mini census. The 2016 mini census captures the number of cattle, pigs, poultry and goat and also recorded the total number of households that are engaged in the production of livestock throughout Vanuatu. The table below shows the total number of livestock production in Vanuatu by region for the two census year.

The data available for this report is collected from various sources such as 2009 and 2016 census report, quarterly statistical indicator report and the national account figures from 2009 to 2016. These dataset

provided the basis to measure the trend of livestock trend in Vanuatu. Some data also comes from the Abattoirs limited. These are data on exports from both abattoirs (Port Vila and Luganville) and are presented in the quarterly statistical report.

**Table 1: Total number of livestock by province and by census year (2009 and 2016)**

Province	Cattle		Pigs		Poultry		Goat	
	2009	2016	2009	2016	2009	2016	2009	2016
Torba	2,298	2,076	2,718	3,314	17,925	26,588	1,152	30
Sanma	48,116	42,213	16,107	13,715	99,596	112,119	8,403	5,042
Penama	11,479	9,626	25,279	23,566	110,041	113,095	3,704	802
Malampa	17,705	15,315	17,061	12,028	91,404	92,249	1,969	1,034
Shefa	16,169	40,145	24,080	22,446	90,205	123,110	13,068	6,192
Tafea	9,284	6,165	22,811	14,236	59,608	47,751	5,790	3,188
<b>Total</b>	<b>105,051</b>	<b>115,540</b>	<b>108,056</b>	<b>89,305</b>	<b>468,779</b>	<b>514,912</b>	<b>34,086</b>	<b>16,288</b>

Poultry is the most common livestock owned in Vanuatu. The census of 2009 recorded a 65% of livestock was poultry compare to 70% poultry population in 2016. This shows a 10% increase in population as a percentage of total livestock over an eight year period. Cattle also show a 10% increase in its population from 2009 to 2016. Unfortunately, pigs and Goats are experiencing a fast decline in their population. Pigs as one of the sacred livestock in the rural communities in Vanuatu has experienced a (-17%) decline in absolute numbers. The number of goats has declined in absolute numbers by (-52%).

Pigs is considered to be a livestock used for customary occasions such as payment of pride by the groom, number of pigs killed to determine a person (man/woman) rank in the traditional hierarchical ladder, circumcisions ceremonies, etc. this decline in numbers of pig population is a threat to the country’s traditional and customary practices.

The eight year interval between the two census years is quite a long period for positive and negative circumstances can occur to our livestock population. Below is a graph showing the rate of change for our livestock over this 8 year period.

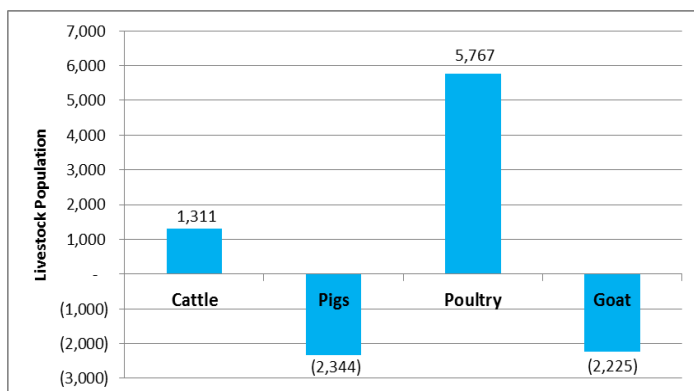


Figure 1: Rate of change in livestock population for census years (2009 and 2016)

The graphs (figure 1) shows that cattle and poultry have increased in population respectively over the 8 year period compare to pigs and goats were both shows a steady decline in their population over that same period.

The census data for 2009 and 2016 captured livestock population figures that could be compared to see the trend of each livestock production for each province. The data shows Shefa province has experiences a high increase in the number of cattle and poultry in 2016 census. Sanma and Penama also experience a slight increase of poultry in 2016 census.

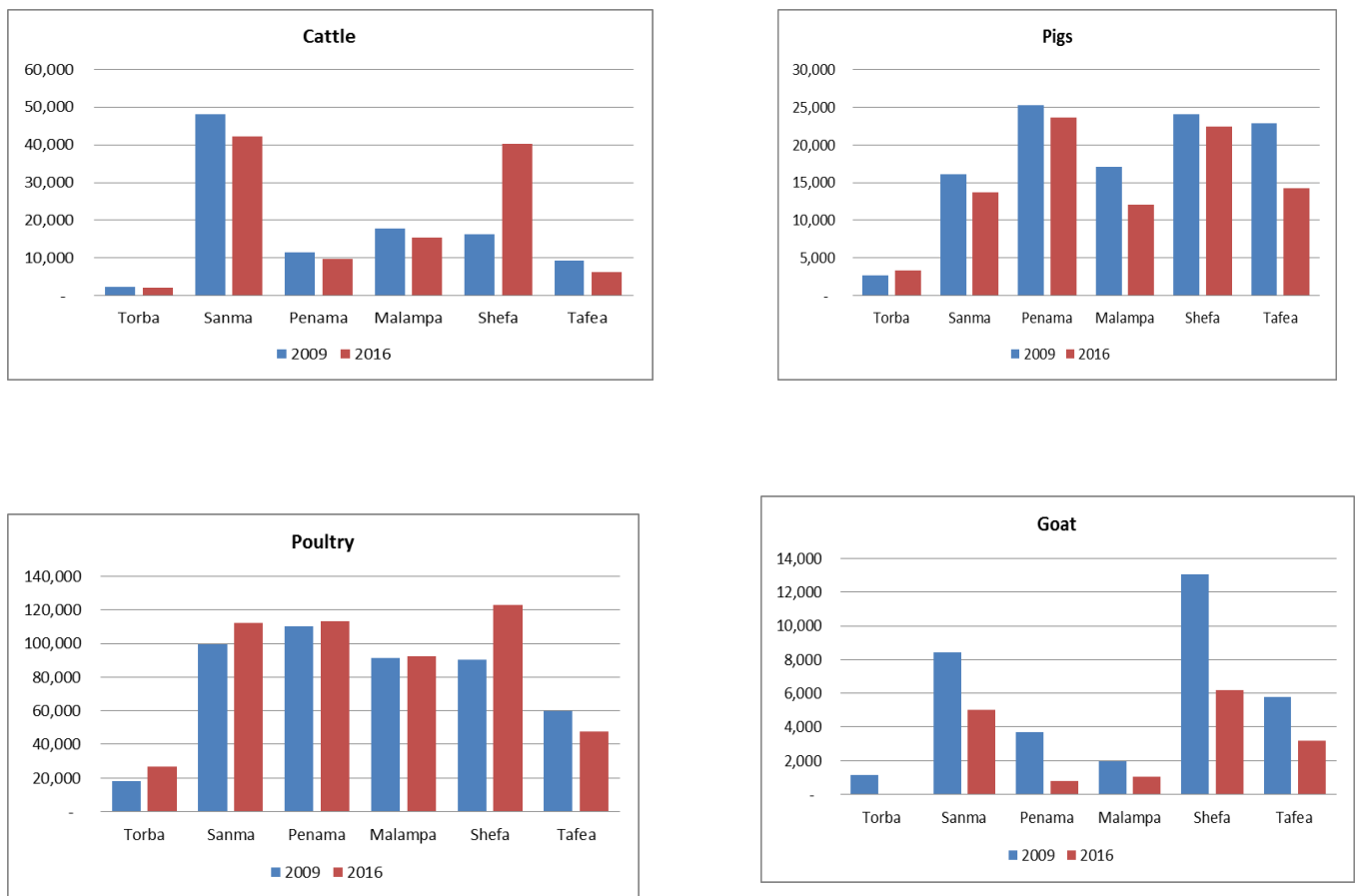


Figure 2: Number of livestock by Province between 2009 and 2016

Malampa seems to be consistent with its Poultry population while Tafea reported a decrease.

Pig population shows decline for all provinces except Torba province which reported a slight increase of 21% in 2016. According to 2016 census, goat have experience a huge decline in all provinces. Sanma (-

39%), Penama (-78%), Shefa (-52%) and Tafea (-44%) province they all shows huge decreased in goat population compare to 2009 goat population.

## Domestic production of livestock

Livestock production is common throughout the country. From households to the national level, all can affirm the positive impact of livestock industry in the country. Livestock is gold to the household and at the national level. As shown in figure 8 below, we have seen the evidence of what our beef export has been contributing to our national economy.

Domestically, livestock is seen as part of the family. All families engaged in raising livestock such as cattle, chicken, pigs, goats, etc. usually for earning an income from sales or for cultural events such as marriage, death, etc.

The QSI report for 2016 (*Vanuatu Statistics Office, December quarter, 2016*) shows the period from 2009 to 2016 there has been a negative percentage decrease of (-15%) of cattle exports in million vatu. This is supported also by a negative percentage decrease of (-29%) of export quantity in tons.

From 2009 to 2016, cattle show a decline in all 5 provinces. However, Shefa province experience a high increase in cattle of 26% compare to 2009 census data. This could be due to more commercial farming or the introduction of the recent cattle re-stocking program of the government in the Shefa province in 2015.

Pigs and Goat farming are declining in all provinces compared to 2009 census data. Pigs experiences a negative decrease of (-17%) and goat (-52%) in there population. This decline could be cause by several contributing factors such as; there is not much market or that there is too much work with very little return or that not much support to the farmers by respective government authorities, etc.

Poultry farming is still high in the provinces in 2009 and 2016. According to the 2016 census, poultry recorded an increase in population of 9%. This could be due to its cultural significance or that the work load of farming poultry is not as heavy compare to cattle, pigs and goats.

**Table 2: Total number of livestock by year**

Livestock	2009	2016	Total
Cattle	105,051	115,540	220,591
Pigs	108,506	89,903	198,409
Poultry	468,779	514,912	983,691
Goat	34,056	16,288	50,344
<b>Total</b>	<b>716,392</b>	<b>736,643</b>	<b>1,453,035</b>

In 2015, Vanuatu has experiences a ferocious cyclone ever to hit the country. The effect of the cyclone was felt by the whole country. One of the industries that felt the impact of the tropical cyclone PAM is

the livestock industry. Many livestock died and farmers were affected by the slow demand to sell their livestock like cattle, pigs and chickens to abattoir or in the local market.

The government has realized the impact of TC Pam on small farmers, therefore the government agreed on a specific project funded by TVET through the South Pacific Community to distribute small animals (chickens and pigs) to rural farmers.

Senior Livestock Officer and Liaison Officer for World Animal Protection, Nambo Moses says “the Government has thrown its weight behind a specific project funded by Technical Vocational Education and Training (TVET) through the South Pacific Community, to distribute small animals including more productive pigs and chickens to rural farmers” (Daily post news, September 9, 2016)

This initiative was very timely to bring back confidence to the farmers to go back into livestock farming. The distribution of livestock allows the local communities to see other avenues of income generation apart from focusing on tourism, etc. While visiting the affected areas in the Tafea province the livestock officer saying to the daily post newspaper that “what is needed is a number of poultry farms and piggeries in the locality to cater both for the villagers and their visitors”. Thanks to the TVET program through the South pacific community to make it available for some of these communities to be provided with livestock as means of income generation among other regular means.

## Livestock Exports

According to Vanuatu Abattoir Limited (VAL) commercial beef exports as reported in the MALFFB annual report of 2009, the Vanuatu abattoir limited recorded the total weight of its beef exports to be 436,825.2kg compare to private beef exporters (custom brokers with a license to export beef) that recorded 27,346kg. According to the customs department ASYCUDA system, it registered 15 principal custom brokers.

According to customs ASYCUDA database, beef export falls under two categories, *meat of bovine animals, fresh and chilled* and *meat of bovine animals frozen* (see annex 8). These categories are used by VNSO to compile beef exports statistics.

In the last quarter of QSI report for 2016 display quantity of export in monetary (In million vatu) and in weight (In tons) from 2009 to 2016. Figure 3 to 5 shows 3 top countries with the highest export of beef from 2009 to 2016.

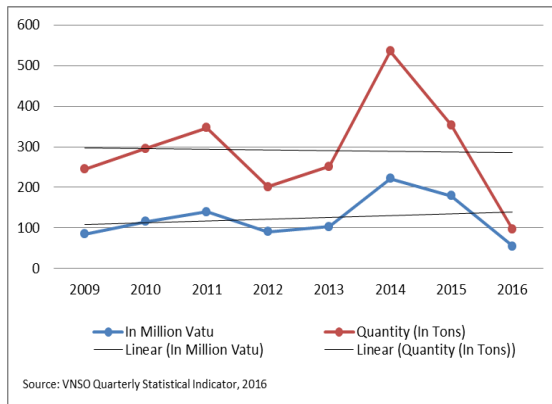


Figure 3: Beef export by Country-Japan

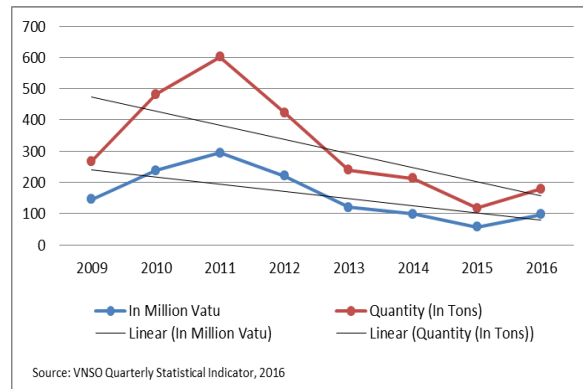


Figure 4: Beef export by country-Papua New Guinea

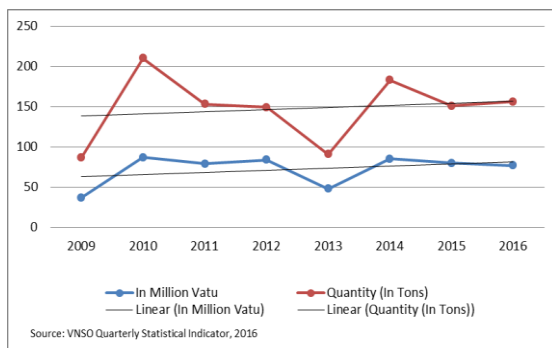


Figure 5: Beef export by country-Solomon Islands

The three top export countries for Vanuatu beef are Japan, Papua New Guinea and Solomon Islands. The highest export of beef was sent to Papua New Guinea that recorded a total of 35.75 tons of beef from 2009 to 2016 and the highest country for personal beef exports was New Caledonia with 25.16 tons from the same period. Beef has the highest demand in exports compare to other livestock

The trend in export of beef among these three countries has shown a decline in both quantity and monetary value since 2009 for PNG, while Japan shows slight decline in quantity values. Solomon Islands seem to have both the monetary and quantity values showing consistent and a slight increase.

Beef exports to Japan have experience a steep decline in 2014 leading to 2016 (figure 3), while there has been a consistent decline for PNG from 2011 to 2015 for both quantity and monetary with just a slight pickup for both variables in 2016 (figure 4). Export to the Solomon Islands is maintained after an increase in export in 2014 (figure 5).

These trend variations in export of Vanuatu beef indicated various factors. One could be that, there is less cattle production domestically. In this next section we look at the number of cattle slaughtered by year to see whether this is the case.

## Cattle Slaughter

The recorded number of cattle slaughtered in both abattoirs (Port Vila and Santo) from 2009 to 2016 shows similar trends. Both abattoirs have number of cattle declining from a peak in 2013. This declining trend is also shown in the overall cattle slaughtered by year as show in figure 6 and figure 7 below. The National Statistics Office also provide table of cattle slaughtered for both abattoirs (Table 3) for the period from 2009 to 2016.

Table 3: Cattle slaughtered by location and year

Year	Vila			Santo			Total		
	Number	Weight	Average Carcass	Number	Weight	Average Carcass	Number	Weight	Average Carcass
2009	9,290	1,900	204	5,259	1,082	206	14,549	2,982	410
2010	10,374	2,168	209	6,282	1,369	218	16,656	3,537	427
2011	10,761	2,222	206	4,517	992	220	15,278	3,214	426
2012	12,889	2,455	190	3,787	935	247	16,676	3,390	437
2013	13,944	2,401	689	3,540	888	1,007	17,484	3,289	1,697
2014	11,816	2,169	184	2,990	768	257	14,806	2,937	440
2015	9,779	1,772	181	3,447	808	234	13,226	2,580	416
2016	11,387	1,854	163	2,768	677	245	14,155	2,532	408

Source: VSO Quarterly Statistical Indicator, 2016

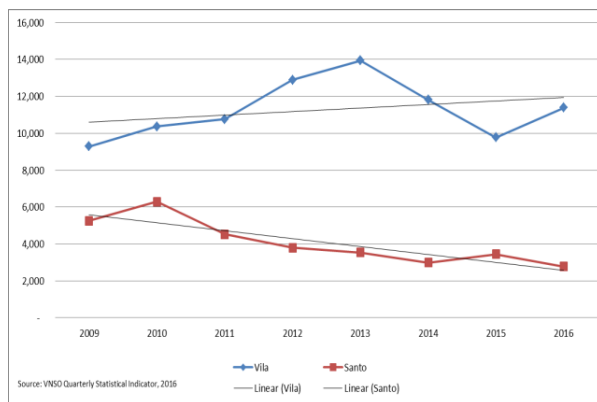


Figure 7: Cattle slaughter by location and year

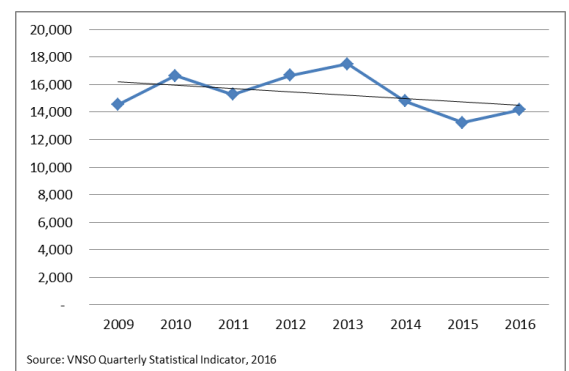


Figure 6: Total cattle slaughter by location by year

Santo abattoir has experience a (-28.1%) decline in its slaughtered stock in 2011 and continue to decline to 2016 while Port Vila abattoir recorded a decline of -15.3% in 2014 and continue to decline to 2015

but an increase of 16% slaughtered stock was recorded in 2016. However, the trend line shows an overall decline. Overall, number of cattle slaughtered is consistently declining.

## Revenue Contribution

According to National Accounts figures from 2009 to 2016, beef industry in Vanuatu is among the top economic activity that brings in millions of vatu into the national cash flow compare to other livestock. Beef export alone makes up almost 3 billion vatu in export to overseas markets. Papua New Guinea is one of the highest priority markets for Vanuatu beef and Vanuatu recorded more than 1 billion vatu from the export to PNG between 2009 and 2016.

As shown in figure 8 and 9, poultry and livestock (pig and goat) are still contributing to livestock production but at a very low quantity compare to beef. Capturing beef at the subsistence level is very difficult therefore its production cannot be determined unlike poultry, pig and goat. Therefore, figures of beef in figure 8 are only from the abattoirs.

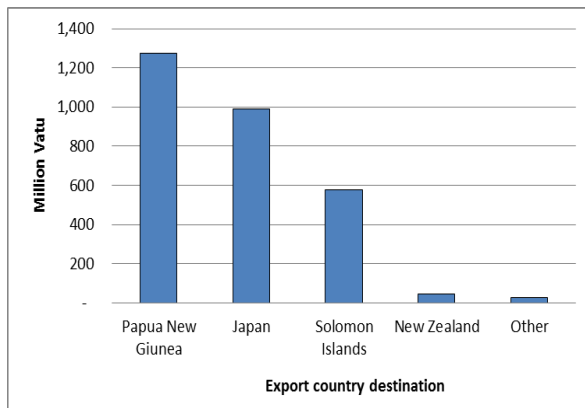


Figure 9: Country of beef export in Million Vatu (2009 and 2016)

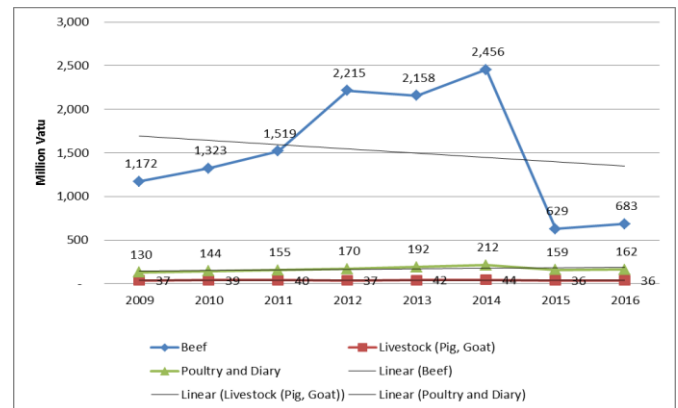


Figure 8: Commercial production (Million Vatu) by year

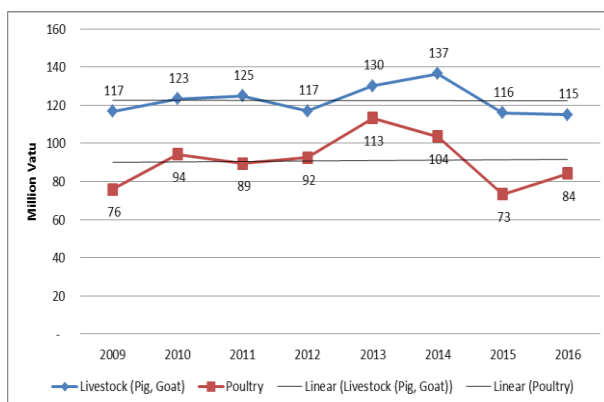


Figure 10: Subsistence production (Million Vatu) by year

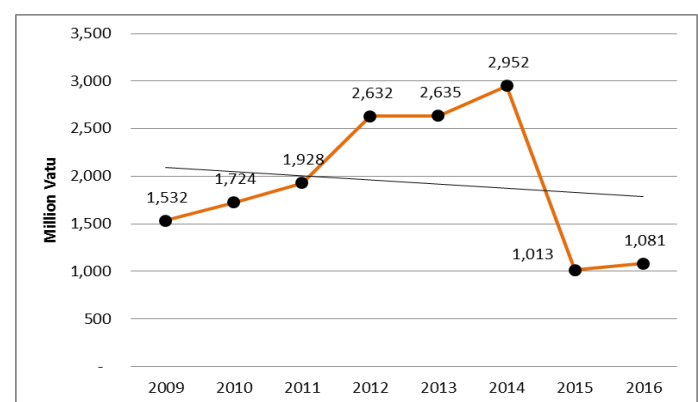


Figure 11: Commercial and subsistence production for all livestock (Million Vatu) by year



Figure 8 shows the trend in beef export to experience a downhill decline in both monetary and quantity from 2014 to 2016. Figure 10 also shows a parallel trend in subsistence production for livestock (pig, goat) and poultry. Both productions are summed up in figure 11 showing declining trend for commercial and subsistence production.

As stated in the VBVCA report, there is a perception by the MALFFB that these decline is due to the declining of smallholder sector and in recent years there has been a move away from support to cattle to pigs and goats and chickens.

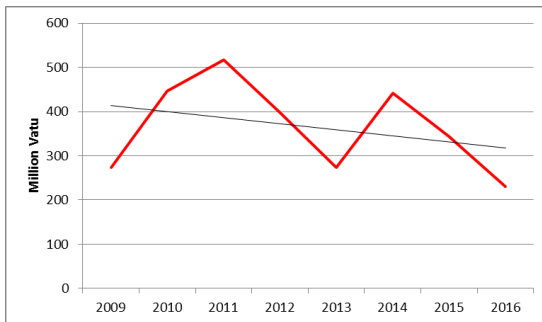


Figure 13: Monetary trend in beef export by year

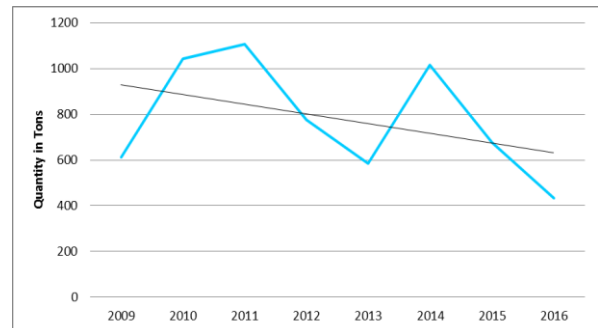


Figure 12: Quantity trend in beef export by year

Figure 12 and figure 13 display the trend of export in monetary and quantity. Both shows a declining trend for monetary and quantity values.

## Conclusion

The main source of information on livestock that we have is from the two population censuses. These show that the number of pigs and goats have declined and that cattle exports is also declining in terms of quantity and monetary values.

Cattle itself makes up more than 1 billion vatu in commercial production in 2009 as reported in the national accounts figure for 2009 (annex 9) and continue to increase until 2014. When we compare cattle production figures with all livestock combine (poultry, pig, and goat) for the period of 2009, they only generated 360 million vatu. Therefore, government definitely has to do something with the livestock sector or the country will be losing a lot of national revenue to the declining of the livestock production.

In figure 14, according to national revenue generated by livestock sector, again, the national accounts figures from 2009 up to 2016 shows very steady increase since 2009 and huge drop in 2015. This trend is only determined by commercial cattle production figures. Other livestock are not impacting on this trend since their contribution into the national revenue is so small.

The 8 year period (2009-2016) can be seen as a period where the country have experiences consistent decline in its export to international markets and low production of beef domestically. Regardless of the numerous technical research and trainings conducted, the very essentials components to improve our livestock industry have been overlooked. Some of these components as defined by Vanuatu Beef Value Chain Analysis report are;

- Lack of knowledge about livestock numbers and production in smallholder sectors
- The high cost of transport getting livestock to market
- Lack of a transparent and fixed price mechanism for the purchase of live livestock from the smallholder sector
- The poor quality of livestock presented for sale by smallholder sector
- Poor genetic material and lack of access to improved bulls
- No access to information and support for animal husbandry and farm management
- Lack of access to finance to fund farm development and very high interest rates of 10-18%
- Lack of initiatives to the sector, example; no duty-free access for materials, fuels, fencing materials, spare parts, etc.
- The livestock level of 5vt per kilo collected from beef processed through the abattoirs goes into the consolidated revenue and is not allocated back to the sector.

These could be the very factors that have contributed to the deteriorating of our livestock sector over the years. Whatever the challenge, these components have to be re-considered and be implemented if necessary.

When viewing these trends at the provincial and community level. The census information has provided a very clear interpretation of this trend. In figure 17 and 18, shows a comparison of the two census years by the total number of livestock. Interestingly, that from 2009 leading to 2016, there was no increase in all livestock population. Even cattle only show a 148.3 percentage increase in Shefa province in 2015. This could be due to the re-stocking program initiated by the government at that year. All provinces show a decline in the population of livestock as show in figure 17. Only poultry is picking up but at a very slow pace.

This declining trend of livestock should be an alert to the ministry and department responsible for the livestock sector to re-look and review their livestock programs and projects. Are they being implemented correctly and meeting the need of the farmers or are they an additional factor to the deteriorating trend to the livestock industry. This could also be that; there is no clear policy, projects are not being profitable, limited budget may be the main hindrance to these downfall, lack of skills human resource, lack of communication between farmers and the authorities, etc. there must be something that is to be done to address the improvement of this very important sector.

## Recommendation

1. The livestock sector is large and therefore, an active and well established coordinated body must be instituted to oversee these areas. This body could also act as the focal point to pull resources together to develop the livestock sector in Vanuatu. This should be a priority for the MALFFB to ensure livestock farmers to continue to farm livestock with a positive outlook that their hard work will be rewarded.
2. I would strongly recommend that the government through the MALFFB to revived or established working groups as was in the past. These bodies could be resurrected again to perform their roles. An example of this body is the Farm Support Association (FSA), a small member-based NGO, established in Vanuatu in 1983 to help facilitate Ni-Vanuatu farming households in commercial agriculture.
3. We also have the Livestock Industry Working Group (LIWG). This was recently set up with the assistance of the DFAT-funded PHAMA project. It comprised of 12 members representing all sectors of the cattle industry; the small holder sector on Efate and Santo, large commercial farmers in Efate and Santo, abattoirs, butchers and consumers, representative of women in agriculture, trade and industry and the department of livestock. This is a functional group to represent the cattle industry and provide concerted voice for the issues and concerns.
4. Issues addressed in the VBVCA report must not be overlooked. These are factors that contribute largely to the deteriorating decline of our livestock supply over the years and will continue to decline if the government and the MALFFB did not address these areas of need at the national level.
5. I also want to recommend that MALFFB be serious about having each department keeping their administrative records in place. Data are all over the place or no data at all in some department. Livestock department is poorly equipped with equipment and data. As a result, I was not able to obtain any data. I set up appointments and meeting with the director of livestock more than once followed by numerous emails were send to the officer in charge, copied to the director, but nothing has been provided from the Livestock department.
6. I suggest the minister concerned must take a serious look into strengthening these departments and especially the livestock department to ensure livestock data are in place and that small holder farmers feel that they have been provided the opportunity to have access to privileges by the government. Also this will enable the government to monitor the results of policies.

## References

Ministry of Agriculture, Quarantine, Forestry and Fisheries 2009 Annual Report

Ministry of Agriculture, Quarantine, Forestry and Fisheries 2010 Annual Report

Vanuatu Beef Value Chain Analysis, March 2014

Ministry of Agriculture, Livestock, Forestry, Fisheries and Biosecurity Annual Report 2016

Ministry of Agriculture, Livestock, Forestry, Fisheries and Biosecurity Annual Report 2014

2009 National Population and Housing Census

2009 to 2016 National Accounts facts and Figures

2016 Post-TC PAM Mini-Census Report

## Appendix

### Annex 1: Total number of livestock owned by households

Region		Cattle	Pigs	Backyard Poultry	Goats
<b>VANUATU</b>		<b>115,540</b>	<b>89,903</b>	<b>514,912</b>	<b>16,288</b>
URBAN		24,692	11,540	53,576	2,384
RURAL		90,848	78,363	461,336	13,904
<b>TORBA</b>	<b>Area Councils</b>	<b>2,076</b>	<b>3,314</b>	<b>26,588</b>	<b>30</b>
	Torres	50	394	2,981	11
	Ureparapara	65	70	1,145	1
	Motalava	200	363	2,829	
	Vanua Lava	576	641	8,530	2
	Mota	16	181	1,682	
	Gaua	1,167	1,275	7,735	16
	Merelava	2	390	1,686	
<b>SANMA</b>	<b>Area Councils</b>	<b>42,213</b>	<b>13,715</b>	<b>112,119</b>	<b>5,042</b>
	North West Santo	1,029	1,064	3,760	97
	North Santo	11,596	3,100	14,945	1,036
	West Santo	2,236	1,350	7,282	1,804
	South Santo	4,750	1,685	14,687	495
	East Santo	9,456	917	13,523	50
	South East Santo	4,882	1,071	14,890	109
	Canal - Fanafo	4,001	2,159	12,115	504
	Luganville	1,014	684	11,207	132
	West Malo	1,010	1,268	9,943	452
	East Malo	2,239	417	9,767	363
<b>PENAMA</b>	<b>Area Councils</b>	<b>9,626</b>	<b>23,566</b>	<b>113,095</b>	<b>802</b>
	West Ambae	856	2,203	27,370	230
	North Ambae	499	2,403	12,488	41
	East Ambae	521	1,937	5,073	7
	South Ambae	1,039	717	508	137
	North Maewo	745	2,064	7,304	124
	South Maewo	444	682	4,428	2
	North Pentecost	1,213	4,977	21,323	12
	Central Pentecost 1	1,268	2,194	10,051	22
	Central Pentecost 2	1,254	3,860	12,446	13
	South Pentecost	1,787	2,529	12,104	214
<b>MALAMPA</b>	<b>Area Councils</b>	<b>15,315</b>	<b>12,028</b>	<b>92,249</b>	<b>1,034</b>
	North West Malekula	2,290	938	10,717	376
	North East Malekula	2,890	1,519	20,081	187
	Central Malekula	1,218	1,407	15,887	80
	South West Malekula	2,091	640	7,969	117
	South East Malekula	1,936	1,446	8,418	24
	South Malekula	1,470	1,791	6,368	148
	North Ambrym	1,290	1,856	9,269	1
	West Ambrym	1,073	1,612	5,225	25
	South East Ambrym	824	663	3,354	76
	Paama	233	156	4,961	
<b>SHEFA</b>	<b>Area Councils</b>	<b>40,145</b>	<b>22,446</b>	<b>123,110</b>	<b>6,192</b>
	Vermail	618	488	4,728	35
	Vermaul	746	831	4,785	264
	Varisu	447	589	3,096	119
	South Epi	1,682	602	5,516	875
	North Tongoa	1,136	1,026	3,754	240
	Tongariki	228	430	2,420	675
	Makimae	661	632	2,932	291
	Nguna	230	332	3,987	116
	Emau	16	245	1,547	184
	Malorua	5,434	514	5,040	365
	North Efate	1,408	717	5,130	189
	Mele	300	1,197	4,843	30
	Port Vila	23,678	10,856	42,369	2,252
	Ifira	37	236	275	
	Pango	555	388	1,520	18
	Eraikor	23	1,061	10,779	129
	Eratap	2,075	1,231	11,528	149
	Eton	871	1,071	8,861	261
<b>TAFEA</b>	<b>Area Councils</b>	<b>6,165</b>	<b>14,236</b>	<b>47,751</b>	<b>3,188</b>
	North Erromango	421	119	1,648	121
	South Erromango	181	100	873	67
	Aniwa	1	487	1,214	25
	North Tanna	1,251	929	5,178	821
	West Tanna	1,144	3,670	12,157	364
	Middle Bush Tanna	1,225	2,398	7,372	373
	South West Tanna	1,022	1,859	4,889	704
	Whitesands	492	4,276	8,059	324
	South Tanna	265		2,801	297
	Futuna	2	119	1,368	
	Aneityum	161	279	2,192	92

**Annex 2: Number of livestock owned by households (2009 population**

Region	Pigs	Goats	Cattle	Horses	Chickens
<b>Vanuatu</b>	<b>108,506</b>	<b>34,056</b>	<b>105,051</b>	<b>5,559</b>	<b>468,779</b>
Urban	9,236	8,622	7,592	1,076	23,114
Rural	98,820	25,464	97,459	4,483	445,665
Torba	2,718	1,152	2,298	65	17,925
Sanma	16,107	8,403	48,116	2,233	99,596
Penama	25,279	3,704	11,479	271	110,041
Malampa	17,061	1,969	17,705	316	91,404
Shefa	24,080	13,068	16,169	1,612	90,205
Tafea	22,811	5,790	9,284	1,062	59,608

**Annex 3: Number of livestock owned by households (2009 census and 2016 mini census)**

Province	Cattle		Pigs		Poultry		Goat	
	2009	2016	2009	2016	2009	2016	2009	2016
Torba	2,298	2,076	2,718	3,314	17,925	26,588	1,152	30
Sanma	48,116	42,213	16,107	13,715	99,596	112,119	8,403	5,042
Penama	11,479	9,626	25,279	23,566	110,041	113,095	3,704	802
Malampa	17,705	15,315	17,061	12,028	91,404	92,249	1,969	1,034
Shefa	16,169	40,145	24,080	22,446	90,205	123,110	13,068	6,192
Tafea	9,284	6,165	22,811	14,236	59,608	47,751	5,790	3,188

**Annex 4: Beef export by Million Vatu and Quantity (2009 to 2016 VNSO QSI report)**

Country of Destination	In Million Vatu								Quantity (In Tons)							
	2009	2010	2011	2012	2013	2014	2015	2016	2009	2010	2011	2012	2013	2014	2015	2016
Japan	85	116	140	91	103	222	179	55	245	296	347	201	251	535	353	97
Papua New Guinea	146	239	295	221	121	99	57	98	268	483	602	424	240	213	118	179
Solomon Islands	37	87	79	84	48	85	80	77	87	210	153	149	91	183	151	156
Australia	-	16	-	-	-	-	15	-	-	43	-	-	-	-	29	-
New Zealand	2	-	-	-	0	35	6	-	6	-	-	-	1	80	14	-
Singapore	-	4	-	-	-	-	-	-	-	8	-	-	-	-	-	-
Kiribatti	-	-	-	-	-	-	6	-	-	-	-	-	-	-	12	-
Fiji	0	2	-	-	-	-	-	-	0	2	-	-	-	-	-	-
Wallis and Futuna Islands	2	2	2	2	1	1	-	1	2	3	3	3	2	1	-	2
New Caledonia	1	-	-	-	-	-	-	-	3	-	-	-	-	-	-	-

Source: Vanuatu National Statistics Office

#### Annex 5: Beef export by million vatu (2009 to 2016 VNSO QSI report)

Country of Destination	In Million Vatu								Total
	2009	2010	2011	2012	2013	2014	2015	2016	
Japan	85	116	140	91	103	222	179	55	991
Papua New Guinea	146	239	295	221	121	99	57	98	1,276
Solomon Islands	37	87	79	84	48	85	80	77	577
Australia	-	16	-	-	-	-	15	-	31
New Zealand	2	-	-	-	0	35	6	-	44
Singapore	-	4	-	-	-	-	-	-	4
Kiribatti	-	-	-	-	-	-	6	-	6
Fiji	0	2	-	-	-	-	-	-	2
Wallis and Futuna Islands	2	2	2	2	1	1	-	1	11
New Caledonia	1	-	-	-	-	-	-	-	1
<b>Total</b>	<b>273</b>	<b>466</b>	<b>517</b>	<b>398</b>	<b>273</b>	<b>442</b>	<b>344</b>	<b>231</b>	<b>2,943</b>

Source: VNSO QSI report, 2016

#### Annex 6: Beef export by quantity in tons (2009 to 2016 VNSO)

Country of Destination	Quantity in tons							
	2009	2010	2011	2012	2013	2014	2015	2016
Japan	245	296	347	201	251	535	353	97
Papua New Guinea	268	483	602	424	240	213	118	179
Solomon Islands	87	210	153	149	91	183	151	156
Australia	-	43	-	-	-	-	29	-
New Zealand	6	-	-	-	1	80	14	-
Singapore	-	8	-	-	-	-	-	-
Kiribatti	-	-	-	-	-	-	12	-
Fiji	0	2	-	-	-	-	-	-
Wallis and Futuna Islands	2	3	3	3	2	1	-	2
New Caledonia	3	-	-	-	-	-	-	-
<b>Total</b>	<b>612</b>	<b>1,044</b>	<b>1,106</b>	<b>777</b>	<b>585</b>	<b>1,014</b>	<b>677</b>	<b>434</b>

Source: VNSO QSI report, 2016

#### Annex 7: Cattle slaughter by abattoir (2016 VNSO QSI report)

Year	Vila			Santo			Total		
	Number	Weight	Average Carcass	Number	Weight	Average Carcass	Number	Weight	Average Carcass
2009	9,290	1,900	204	5,259	1,082	206	14,549	2,982	410
2010	10,374	2,168	209	6,282	1,369	218	16,656	3,537	427
2011	10,761	2,222	206	4,517	992	220	15,278	3,214	426
2012	12,889	2,455	190	3,787	935	247	16,676	3,390	437
2013	13,944	2,401	689	3,540	888	1,007	17,484	3,289	1,697
2014	11,816	2,169	184	2,990	768	257	14,806	2,937	440
2015	9,779	1,772	181	3,447	808	234	13,226	2,580	416
2016	11,387	1,854	163	2,768	677	245	14,155	2,532	408

Source: VNSO Quarterly Statistical Indicator, 2016

### Annex 8: HS tariff code use to compile beef export statistics by VNSO

Tariff Item	Description	Unit Qty	Import Duty Rate	Excise Duty	Import Vat	SITC Code	Export Duty Rate
<b>02.01</b>	<b>Meat of bovine animals, fresh or chilled.</b>						
0201.10.00	- Carcasses and half-carcasses	kg	30%	Free	12.5%	011.11	Free
0201.20.00	- Other cuts with bone in	kg	30%	Free	12.5%	011.11	Free
0201.30.00	- Boneless	kg	30%	Free	12.5%	011.12	Free
<b>02.02</b>	<b>Meat of bovine animals, frozen.</b>						
0202.10.00	- Carcasses and half-carcasses	kg	30%	Free	12.5%	011.21	Free
0202.20.00	- Other cuts with bone in	kg	30%	Free	12.5%	011.21	Free
0202.30.00	- Boneless	kg	30%	Free	12.5%	011.22	Free

### Annex 9: National Accounts figures for 2006 to 2016, VNSO

NATIONAL ACCOUNTS OF VANUATU												
At current prices - Million Vatu												
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	
Subsistence/Custom / traditional agriculture	7,103	7,722	8,016	9,096	9,432	10,085	12,154	12,621	12,957	13,052	13,193	
Garden and food crops	5,693	6,239	6,529	7,575	7,763	8,327	10,442	10,823	11,116	11,254	11,352	
Kava	585	596	607	619	631	643	655	667	680	693	706	
Fishing	335	363	348	332	353	344	367	376	387	404	413	
Livestock	115	112	105	117	123	125	117	130	137	116	115	
Poultry	78	81	78	76	94	89	92	113	104	73	84	
Coconut	82	129	132	108	183	275	209	241	261	234	245	
Firewood	215	201	216	270	285	282	272	270	273	278	278	
Commercial agriculture	3,098	3,365	4,424	3,772	4,643	6,131	5,961	6,324	6,975	4,835	5,067	
Copra	355	849	1,470	458	1,176	1,989	1,313	1,493	1,598	1,468	1,520	
Coconut	31	34	30	33	24	27	39	40	42	28	29	
Kava	1,306	1,117	1,257	1,273	1,204	1,442	1,380	1,537	1,555	1,574	1,593	
Beef	706	662	967	1,172	1,323	1,519	2,215	2,158	2,456	629	683	
Forestry and logging	334	364	397	433	473	516	522	607	706	662	706	
Cocoa	96	71	62	83	140	267	131	115	185	124	163	
Coffee	4	2	4	5	4	3	5	4	12	5	8	
Fishing	64	50	51	118	86	138	121	109	114	109	114	
Livestock	37	36	33	37	39	40	37	42	44	36	36	
Poultry and dairy	138	149	125	130	144	155	170	192	212	159	162	
Fruits and vegetables	27	31	28	30	30	36	27	27	53	42	53	
<b>Total agriculture</b>	<b>10,200</b>	<b>11,087</b>	<b>12,440</b>	<b>12,868</b>	<b>14,075</b>	<b>16,216</b>	<b>18,115</b>	<b>18,944</b>	<b>19,932</b>	<b>17,887</b>	<b>18,260</b>	