

# **To Produce or to Import?**

## Meat Market Chain Analysis Of Liberia



A Research Pilot Project by the Department of  
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Rudolf Buntzel, Edwin Nimley, Leroy Cegbe

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## **About the Authors:**

**Dr. Rudolf Buntzel**, Ph.D. from the University of Heidelberg/Germany in agricultural economics, is visiting professor to WRTCAF. He is consultant for world food matters to the Church-related German donor NGO Bread for the World.

**Edwin Nimley**, M.Sc., *Rural Sociology and Agricultural Economics, Certified Project Management Professional (PMP), and Instructor, William R. Tolbert Jr. College of Agriculture & Forestry, University of Liberia. As an Instructor, Mr. Nimley teaches courses in Agriculture Economics (i.e., agricultural marketing, farm business management, agricultural finance and economics of agricultural development) and courses in Rural Sociology (i.e., Introduction Rurla Sociology).*

**Prof. Leroy Cegbe,**

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## 1. Objective of the Inquiry

The important CAAS-Lib Report of 2007 has set the goal for the trade policy regime of the Government of Liberia (GoL): “GoL should maintain its liberal policy towards food imports and exports, with careful attention to the effects such a policy has on the incentive system for domestic food production.”<sup>1</sup>

It is the objective of this Pilot Project to find out whether GoL has achieved over the years maintaining the right balance between allowing cheap food imports entering its domestic food markets only up to an extent that they are not out competing the local producers. This question is the same as to whether an equilibrium between consumers’ interests (to buy as inexpensive food as possible) and the farmers’ interest (to receive attractive prices for their produce and sufficient outlet on the domestic markets) has been found.

In the long run the apparent clash of interests might vanish. As the domestic food system is able to supply most of the domestic food needs the recovery of the economy through this agricultural growth will have created sufficient employment and purchasing power that people can cope with the higher food prices that were necessary in the first place to get the growth engine started.

## 2. Food Import Dependency of Liberia

Liberia is a case of a Least Developed Country (LDC), which is extremely dependent from food import. To regain part of these markets for the domestic

### Liberia Imports of Food:

- 60% of Cereals,
- 50% of Rice,
- 100% of Corn,
- 70% of refined sugar,
- 25% of cooking oil,

<sup>1</sup> Comprehensive Assessment of the Agriculture Sector in Liberia, Synthesis Report Vol 1, para 9 “Policy and Institutional Reform, Monrovia 2007

- 30% of meat (like 60% of poultry),
- 95% of milk products.

**It means that of everybody's food consumption imported:**

- 50 % of daily calory intake
- 60 % of protein intake

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producers is a must for a broad based agricultural development, based on smallholders and a multifunctional agriculture.

No doubt that there is no alternative to raise the productivity of food production on the farms and of the whole food chain system in the country from the farm gates to the shelves of the markets. But even if this might happen in a certain time span the all-embracing question remains: Will even the most efficient producer of meat or cereals be able to compete with the imported cheap products? Will Liberian agriculture development have a chance to flourish under a trade regime that is as liberal as at present? And under an international food market system that is characterized by such immense contradictions and an unlevelled playing field, as exist between the agribusiness of the North and the poverty hit agriculture of Africa?

This question is not confined to the comparative advantages of the production and distribution systems. Knowing that most of the imported food comes from the food systems of Europe and North America, which enjoy substantive subsidies by their governments, and knowing that the international agribusiness operates with recourse to a multiple arsenal of dumping instruments, the trade policy is very much also a matter of fairness and justice to the domestic producers.

### **3. International Food Price Surge**

Food Prices reached a new record high in February 2011, according to the FAO, as some prices increased drastically over the last year: wheat by 74 %, corn by 87 %. The food price inflation is given rise to fear of lower spending capacity for some households in developing countries, fear of hunger for others, with potential consequences for global growth and political turmoil. But for the question of providing incentives for domestic production, the rising food prices may mean a new chance for local producers.

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<sup>2</sup> According to FAO Food Balance Sheets

Even if Liberians has suffered much under food riots and price hikes, as eater of mainly imported rice the current price surge has not affected Liberian consumers that much. Contrary to wheat and corn, international rice prices are still well below their peak of 2008 and slightly lower than a year ago.

Farmers in Liberia do not benefit fully from higher food prices, because the GoL tried to avoid the full transmission of the international price increases to the domestic markets through various policy instruments. Because of its food import dependency and weak macro-economic situation it is not surprising to find out that the Liberian Government has taken precaution and has a deliberate policy for responding to price hikes.<sup>3</sup>

However, imported rice is more important as compared to local rice among urban consumers and among less poor households. Hence measures to reduce prices of imported rice will have distributional impacts that may not necessarily favor the poorest among Liberia's consumers. Indirectly the market price movements of imported rice and those of domestically produced rice are correlated. Simulations illustrate the important potential for price rises to retard poverty reduction: it is estimated that a 20% increase in rice prices will increase headcount poverty rates from current levels of 63.8% to 67.7% – an increase of 4 percent.

In matters of rice, it seems as if GoL was able to cope with the enormous burden of the exploded import bill in 2006 to 2008, by increasing the domestic rice production. Even if this increase was entirely due to an expansion of the rice growing area in Liberia (and not to an increase in yields per hectares) the rice import dependency was reduced from as high as 84.5 % in 2006 to 17.83 in 2010 (see appendix 9). We can conclude that this success was partly due to a moderate transmission of increased world market prices, partly by the effort of GoL to rehabilitate the devastated rice land after the civil war and to an intelligent GoL-policy on finding some kind of equilibrium between trade and production policy.

This study tries to assess whether this success story might also be applicable for the meat and livestock sector in Liberia. Because Liberians like to eat meat, and keeping livestock is an employment intensive economic activity with a lot of potential to reduce poverty.

#### **4. Livestock Production in Liberia**

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<sup>3</sup> A concerted GoL's response to complement actions already taken by President Sirleaf is pursued. A comprehensive strategy prepares action on three fronts: 1. To mitigate, as far as possible, domestic price rises and ensure consistent supply. 2. To maintain access to food by vulnerable populations; and 3. To promote rapid domestic food production

The Liberian livestock sector was heavily affected by the 14 years of civil strife and is only slowly starting to re-establish itself. It is estimated that the number of cattle shrank between 2002 and 2005 from 36,000 to 25,200. Only the number of pigs seems to have stayed constant over the war period with 130,000.

Before the war the country succeeded to provide 42 % of all pork, 100 % of rabbit, 100 % of guinea pigs, 99.5 % of poultry meat and 61.2 % of ducks. “The capacity to produce therefore exists in Liberia”.<sup>4</sup> But nowadays only 9.2 % of animal products (meat, eggs) are covered by local production, and zero of the national milk needs.

The situation of egg production is in a similar deplorable state. In 1984, the self-sufficiency rate for eggs was 72.5 %; after the war 2005 it came down to 17.8 %. Only very slowly it is recovering, reaching 50.3 % in 2011.

The only main livestock owned by rural and semi urban Liberians today is poultry, raised as backyard chicken (or country chicken) in the open without much care and investment. It is found on the level of the traditional economy. In a sample, 47 % of households own chickens, 8 % ducks and 5 % pigs.

The regional distribution of raising livestock differs much.<sup>5</sup> Beef and small ruminants (sheep, goats) were highly limited; cattle because of the tsetse fly, which transmits Trypanosomiasis. Two local species however are trypano-tolerant: N`Dama and Muturu.

Livestock had never been the subject of serious statistical research, nor has there ever been a systematic vaccination campaign, which would have gone along with a good estimate of the real number of heads. Before the war, Maryland, Grand Gedeh and Sinoe had large cattle farms. Today they are only slowly rehabilitated – mainly in Maryland.

This fact is somewhat ad odds to the natural endowment of the country and to the high demand for meat. Liberia has more than 2 million hectares rangeland; especially Maryland, Grand Gedeh and Sinoe are characterized by vast areas of grassland, which are less suitable for farming, but ideal for raising ruminants. According to a 2005 estimates (right after the war) there are only 141,641 units of livestock on the available natural ranging land, which is a very low density of 0.1 cow/km<sup>2</sup>, 2.2 sheep/km<sup>2</sup> and 2.1 goat/km<sup>2</sup><sup>6</sup>.

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<sup>4</sup> CASS-Lib, op.cit., page 155

<sup>5</sup> Vgl.

<sup>6</sup> Vgl. Shaw/Hoste, FAO 1987. Quoted in: Republic of Liberia, Ministry of Agriculture, Comprehensive Assessment of the Agricultural Sector, Vol 2.1 – Sub-Sector Reports, Monrovia 2007, page 145

Reliable statistics about livestock production in Liberia are not available. The Ministry of Agriculture only reports about the farmers, who had received some kind of technical advisory service. According to that figures, a total of 31,532 heads of livestock are owned by 3,345 farmers in 2011, of which only 31 raising keep cattle, the rest of them raising keep sheep and goats. But the majority of the livestock farmers keepers have never received a visit of an extension officer. The very low figure of visits to cattle raising farmers indicates that there is hardly any skill and knowledge the field staff can offer to the beef producing sector.<sup>7</sup>

At the same time the number of live animals that was imported was 12,000 heads of N`Dama and 14,000 of Zebu, producing a total amount of beef meat of 3,000 tons. Sixty-nine Percent (69 %) of the cattle in Liberia is Mutura. Though trypano-tolerant, it has a low productivity with an average carcass weight of 95 kg only. In matters of fresh cow meat we can assume that Liberia has a self-sufficiency rate of about 70 %. This is surprisingly high, in relation to the rudimentary state of the cattle trade ; but since the total amount of beef consumption in Liberia is minor and/or i marginal due to high price., The figures obtained from the study do not give us an indication about the potential market demand and supply if the price relations would change. As the interviews with the butchers and the slaughter house revealed the market for fresh cattle meat is presently satisfied at the low margin and high price . Noethless, the preference for fresh cow meat is high, but most of the Liberians cannot afford it.

The number of reported imported sheep into Liberia equals the number of slaughtered animals, meaning that no domestically raised sheep has been supplied to the slaughter house (the only place where registered slaughtering take place). With goats, it is somewhat different - 212 heads were imported, and 914 slaughtered, meaning also domestically raised goats are being sold at the slaughter house. The amount of sheep/goat meat amounts up to 312 tons. The real number of livestock raised and/or backyard slaughtering in the villages is totally unknown.

In comparison, an estimation from 1987 concluded a local meat production of 5,491 tons from domestic livestock and 8,513 tons of meat from imported live animals and imported meat, adding up to 14,000 tons fresh meat of local consumption annually, making it to a self-sufficient degree of fresh meat of 39 %.

By a population of two million at that time it amounts to a per head consumption of fresh meat of 6.8 kg a year. The study went on by estimating that the price of

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<sup>7</sup> Ministry of Agriculture, Annual Report, Monrovia, Dec. 31, 2011, page 35

the imported fresh meat was 30 % lower than the meat locally produced. CAAS-Lib Study estimated the demand for meat of 11 kg/person per year in average, including the imported frozen meat, meaning a total demand of 40,000tonnes in 2012.

## 5. Import of Deep Frozen Chicken Parts

In 2012, Liberia imported 32,645 tons of deep frozen chicken parts from 10 countries (EU counts as one country). By far most of it came from the EU (1.327 tonnes = 40 %). Other big suppliers (countries) include, Jordan, Turkey, Ukraine and Lebanon, not so much (contrary to someone´s expectation) Brazil and the USA. Eight (8) companies were involved in importing the deep frozen chicken meat parts, six (6) of them are about the same size with two (2) minor ones in terms of volume of meat imported into the country..

CAAS-LIB Study estimated that the imported frozen chicken parts in 2007 had a volume of 2,041 tonnes. If the figures are correct then these imports increased within 5 years by one third, which is a fast growth.<sup>8</sup> The report indicated - : “Regarding modern livestock enterprises, production has been reduced considerably due to importation of frozen chicken parts.” Even the 10,000 soldiers from UNMIL in the country are not anymore supplied by local produced broiler meat, but by imported chicken parts.

The price at which the importer receives the commodity in the port of destination ( Monrovia) is the CIF-price normally (including cost, insurance, freight). The cif-price is the basis for calculation of duties and other import charges, which the importer has to carry. The calculation for Liberia imports of chicken meat is as follows:

### Box: The Import Regime for Chicken Meat

FOB-price (free on board: the price an exporter submits to the domestic port)
-------------------------------------------------------------------------------

<b>CIF-price</b>
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+ 10 % duty for deep frozen chicken parts (2.5 % duties for pork and beef)
----------------------------------------------------------------------------

+ 7 % GST (General Service Tax (fee for the custom administration)
--------------------------------------------------------------------

+ 0.5 % ECOWAS Trade Levy (goes to ECOWAS as revenue)
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+ 4 % bank Charge (on CIF-price)
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+ 1 % Transportation Charge (service inside the port)
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+ Container Terminal Charge (137.67 or 185,33 US \$)
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+ estimated overheads for the importer (6 %)
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<sup>8</sup> CASS-Lib, 2007,, Vol 2.1, op.cit., page 146

<b>Total cost price of importer</b>
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Profit margin of importer	
Wholesale profit margin (estimated by government: 15 %)	
Estimated Wholesale price	
Profit margin of retailer (estimated by government: 20 %)	
<b>Estimated retain price</b>	

Let's consider a real example: the provision of 2,500 cartons of chicken wings from Italy, with the average carton weight of 10 kg.

Fob-price \$/kg	1.14 \$/kg
Freight: 5.300\$/2500 cartons	0.212 \$/kg
Insurance: 136.80 \$/2500 cartons	0.00544 \$/kg
<b>CIF-price:</b>	<b>1.352 \$/kg</b>
10 % import duty	0,135
7 % GST	0.091
5 % ECOWAS Trade Levy	0.065
4 % Bank Charge	0.052
1 % Transport	0.013
Container Charge	0.0005
Overheads 6 %	0.078
<b>Total price importer</b>	<b>1.786 \$/kg (31 % above the cif-price)</b>
20 % profit margin importer:	0.357
Price at which the wholesaler buys:	2.143
Wholesale profit margin 15 %:	0.321
Wholesaler price:	2.435

Profit margin retailer 20 % : 0.487  
 Estimated Retailer price (consumers price): 2.922 \$/kg

In this case the retail price might be 156 % above the fob-price, and 116 % above the cif-price. These are realistic assumptions. Even if the cost of importation are not minor, they are still low enough to make the importation and trade of imported frozen chicken parts a lucrative business undertaking.

Considering the calculations of how government estimates the domestic prices in 2012, a margin of 80 to 120 % between the fob-prices and the retail prices is regular. However the fob-prices even for the same category of chicken part vary so much that nothing can be called "regular". For instance there are provisions

of chicken feet for 0.055 \$/kg (the cheapest from Lithuania) or 0.043 \$/kg (from France), and expensive cargos of supply for as much as 0.67 \$/kg, meaning a variance of 157 %.

## **6. Tariff Matters**

Assuming that the kg of a chicken meat part mixture would be less than 3 US \$/kg, and it competes with cow head at a price of 5.47 US \$/kg, the import duty by government must increase from 10 % presently to 250 % in future to make the imported chicken meat equally expensive as the domestically produced meat. An import duty of this magnitude is just not imaginable, especially in a time when Liberia is in the accession process to the WTO, in which as Standstill-Clause for the time being in matters of tariff schedule prevails.

The ECOWAS tariff schedule, which is binding for most other commodities, does not apply to agriculture, because as “sensitive products” most agricultural tariff lines are taken out of any binding commitment. The same refers to the free trade agreement with the EU, the so called EPAs (Economic Partnership Agreement). In this regard the Government of Liberia would be legally free to levy higher import duties. B Politically, the use of any trade defense mechanism would be a departure from GoL’s commitment to follow an open trade policy and an offense to many donors and countries who are believers in a liberal trade policy. GoL would have to encounter some kind of negative reactions from its trade partners overseas.

Presently, the Government makes a calculation of each individual cargo entering the country on the basis of all import costs, including the estimated profit margins of the participants. Through this, the Ministry of Commerce and Industry fixes a potential wholesale and retail price for imported meat into the country. These prices – according to the information of Ministry of Commerce and Industry (MOC) - are considered to be obligatory, even if never enforced. In all the interviews with the stakeholders we did not come across the information that GoL sets the prices for deep frozen meat. With Liberia’s accession to the World Trade Organisation this provision has to be cancelled anyway.

## **7. Which kind of chicken parts did Liberia import?**

Forty-One (41) provisions were cartons of chicken feet, 24 of back, 19 of wings, 8 of legs and a few others like whole frozen hen (old layers), carcass, franks, whole chicken Halal.

The prices of all that is imported is below 1 US \$ per kg purchasing price fob, some at a ridiculous price of 0,08 US \$/kg (feet). But the prices vary much,

even within the same category of meat part. No pattern can be identified. Frozen hens (whole), chicken wings, legs and franks are a bit more expensive, may be just above 1 US \$/kg. The cost of freight, customs and insurance (cif-price) add roughly 30 to 40 % to the fob-price.

The kind of meat parts, which are imported, and the very low prices clearly indicate that the meat sent to Liberia (and bought and consumed by Liberians) are left overs of the poultry industry in the industrialized countries; no high value white meat of the chicken is among the imports, like chicken breast.<sup>9</sup>

The average fob-price - meaning the price by which exporters overseas sell their meat to Liberian importers – is somewhat between 0.40 and 0.80 US \$/kg. Even the higher valued parts with solid meat to them, the legs, are sold around 0.80 \$/kg in average; in 2012 there were only 2 shipments with legs from the USA priced at little above 1US \$; the highest prices have been paid for the import of 54 tons of “frozen hens (whole)” from Turkey for 1.90 \$/kg.

There is no producer of broiler in the world who can produce chicken meat at a costs as low as 0.50 \$/kg, at which it is sold fob to Liberian importers. It is estimated that the production of 1 kg of broiler meat in average is 1.00 \$ in the EU and 0.72 \$ in Brazil, the most efficient producer of broilers on the world market.<sup>10</sup> The fact that chicken meat is sold to Liberia at prices as low as that in big quantities from various countries indicate that for chicken meat on the world there is a split market: high prices for the white meat (breast and partly legs), and very low prices for the dark meat, which contains lots of bones. Since both come from the same bird and you cannot produce birds just with breast, there is an element of cross-subsidisation of the exported dark parts through the light parts. If this export market to Africa would not be there, the dark meat parts would be in surplus in the rich producing countries and would need to be destroyed. Up to 10 years ago Europe could get rid of those parts by processing them to meat flour and feeding it as high protein fodder to livestock. But since the mad-cow-disease occurred it is forbidden in Europe to feed meat flour to animals. Thus there is no other way of disposing them with a positive price by exporting them at very low price to the poor African consumers, who enjoy and/or need cheap chicken meat in their soup.<sup>11</sup>

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<sup>9</sup> The fact that there are cases in which a supply is given away for almost nothing to importers of Liberia either points to the fact that these are clear cases of surplus disposal, or of fraud with the import bill (to be billed little to minimise duties and charges in the port of Monrovia).

<sup>10</sup> See Rudolf Buntzel/Francisco mari, The global Chicken – Chicken breast and chicken wings – who eats the leftovers?, Frankfurt 2008, page 79

<sup>11</sup> Since Brazil has poor people in its own country, who cannot afford the expensive parts, it explains why so little imports to Liberia come from the biggest and most efficient producer of broiler in the world.

On the other hand, domestic meat production and livestock development is crippled by the downward pressure on domestic meat prices as a result of these imports. This was explicitly mentioned in all interviews conducted by the students with livestock producers in Liberia, with butchers, who process fresh local meat, with live animal importers, the Ministry of Agriculture and the slaughterhouse.

Even if there is only limited connection between the different meat markets (low cross price elasticity), especially between the market for fresh domestic meat (and chicken marketed live) and the market for deep frozen chicken parts, the competition is massively felt because of the magnitude of the import flows and is felt by all stakeholders.

In comparison, the price for meat from the slaughterhouse is about 4.55 US \$/kg for beef and 5.32 US \$/kg for goat. The live chicken on the market of Monrovia is being sold for 10 US \$/head, not even 1 kg heavy. Hardly any one live chicken trader can still be found in the markets of the metropolitan areas of the country (the cities).. The situation for live chicken trade improves as you go upcountry. It is reported that in rural Nimba, live chicken can be bought for 4.17 US \$, in Lofa – the most remote place of Liberia, where the frozen chicken parts are not found easily - even for 3 US \$.

The prices of fresh meat parts from goats, cows, pigs or sheep sold by the butchers to the consumers are all above 3 US \$/kg (cheapest for intestels), mostly in the range of 5 to 8 US \$/kg. Compared with the prices of the frozen chicken parts sold as “piles” (mostly 1 ½ pound per pile) in the market hall (Jappatown Market), for the popular mixture of wings/feet/back for 2.07 US \$/kg, it becomes clear that when poor people claim that they are not interested in fresh local meat, they cannot afford it (see interview with butchers and consumers).

The other attractive part of the imported frozen chicken parts for the poor consumers is that they are portioned and mixed to very small “piles” at a fixed price. Thus the mother of a poor family can buy a cheap pile for 50 or 100 LD of a diversified meat mix mainly to add flavour to the soup and to create at home the impression that she had served meat in the meal. This small portioning is hardly done to fresh meat, and especially not to the local chicken, which is only sold as whole chicken alive for slaughtering, picking the feathers and preparing it for cooking at home. The whole local chicken is sold on the market for 10 US \$ per head, which is hardly one kg, after the nonedible parts have been removed. Thus it is not astonishing that the live chicken market has almost totally disappeared in Liberia.

The import of frozen pig meat in 2005 was 690 and of pigs feet 8,082 tons, outscoring that of imported frozen chicken meat by at least 3 times. Just like with frozen imported chicken parts: The cheap imported frozen pig parts do not leave domestic pig production any chance. Pig feet are the cheapest part of the pig, in abundance in richer countries, high in demand in Liberia by poor consumers because of its very low price. Local swine raising could not only produce pig feet.

## **8. Some Comments on Trade Policy**

The Government of Liberia has consistently maintained a liberal policy towards food imports and/or exports. The amount of imported food and the dependency of the country on food imports has not been a special concern to the country till 2008, when the food import bill skyrocketed due to the price surge on international food markets. The duties on meat are so low that they serve more for the purpose of earning governmental revenues than on protecting local producers. The food duties are ad valorem, based on the cif-value. There is a need for protection through import duty due to the high subsidies to farmers by the Europe Union (EU) and the United States of America (North America).

“Lebanese and Madingo importers, wholesalers and transporters have historically played important roles in Liberia’s mercantilist system of trade and economic control, in agricultural marketing as well as in financing farmers’ crop production. Liberia needs to find a delicate balance between establishing a level playing field and a competitive environment for all participants with a supportive policy and regulatory framework that provides incentives for the private sector to make investments that are critical to the long-term development of Liberia’s agricultural sectors.”<sup>12</sup> To find this ‘delicate balance’ the CAAS-Lib Report suggests to identify vulnerable areas addressing food security concerns where production will need to be increased out of self-sufficiency reasons to reduce the external vulnerability of the food system against world market forces.<sup>13</sup> Could the meat and livestock sector be such a sensitive area?

In graph 1 in appendix 10, we indicate the different meat prices in Liberia on a column, just like a thermometer. From this way to illustrate the range of market prices, it becomes obvious that the imported deep frozen chicken parts far below any range where a free completion could give local producers a chance. However, the study lacks any data about the real cost of production of meat, a

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<sup>12</sup> Tefft, James, Agricultural Policy and Food Security, FAO/ESA Working Paper, March 5th-11th, 2005, page 10

<sup>13</sup> CASS-Lib, 2007, Vol 2.1, page 35

shortfall .<sup>14</sup> What also become apparent is that between the cif-price of the imported meat and the wholesale price there is a big margin. It is not clear whether the importers or the wholesalers are making the big profit from this margin; many importers are also wholesalers. Anyway, to import and sell imported chicken meat parts is a very lucrative business, and the people who benefit from this price gap will try everything not to allow any intervention to shrink their profits . Their political arguments are stronger, because they have the backing of all agents of liberal trade regimes (WTO, IMF, Global Donors, the GoL itself), of the international meat exporters (companies, governments from exporting countries) and of the poor consumers inside of Liberia. Even the development organizations working for the reduction of poverty and hunger might be defenders of this trade with poor men's food. The losers of this trade flows are not real, only potential, because the loss exists only as a foregone chance, but chance for whom? Will the poor smallholders have a realistic chance to enter the meat value chain, as farmers who produce the feed, as keepers of livestock, as meat traders or as butchers?

It should not be forgotten that the most fierce competition is between cheap chicken meat and cheap fish. In the diet of Liberians there is a high affinity to eat fufu or rice with either fish or shicken soup; but both are equally attractive to Liberians. Thus a big loser of the cheap chicken imports are the fishermen in Liberia. They are many, and they belong to the poorest section of society (artisanal).

The trade is not fair, because the producers in Liberia have to compete against cross-subsidized imports, which are being sold far below the cost of production in their countries of origin and below the prices, at which they are sold on the domestic home market.

## **9. Improvement of Livestock Production and Meat Value Chain**

To reduce the competition from cheap imported chicken meat, much emphasis must be put on the improvement of the productivity of the livestock raising and cost-saving practices (methods) of production . The preconditions to raise competitive domestic meat production are bleak. The Department of Livestock at the ministry of Agriculture (MOA) has only two veterinary specialists and 26 of less skills, most of them located in the northern counties. The Department has no vehicle, nor technical equipment and laboratories for meat safety inspection and disease detection. The only school that existed closed its doors in 1990. At

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<sup>14</sup> The failure to capture those datas is partly due to missing cost calculations on the side of the producers, partly due to the confidentiality of the figures and partly to the reluctance of the students to go deep enough into the matter.

the University of Liberia in the College of Agriculture and Forestry there is only one professor for teaching livestock production. The slaughterhouse of Monrovia – the only official one in the country – is in a terrible state of disrepair which does not guarantee sanitary quality meat. It is also reported that the nine livestock multiplication ranches are in a state of total neglect. The lack of road network as well as the absence of animal passage corridors makes the movement of animals very difficult. Live animal transport faces serious harassment through illicit taxes levied on them by police check points on the roads. To reach Monrovia they have to pay up to 300 US \$ of road bribes. Currently, there are no research programmes on animal diseases in the country, vaccination programs are missing altogether, and the little extension there is lacks the means to assist livestock actors with their animal health problems.

The Students' Inquiry, when interviewing the representative of the Ministry of Health responsible for inspection of imported food, he expressed his regrets that his department is yet to see the establishment of a laboratory to assure safe meat to the Liberian consumers. It is only by visual inspection (how well the product is frozen) that tells him the edibility of the product. Absolutely no test is carried out.

It is only now that MOA has started to work on a livestock strategy. But the livestock sector does not have any supporting project up to now. Only some NGOs are trying to develop the raising of some poultry or young ruminants, like German Agro-Action, Africare, World Vision or Samaritans.

The low attention to the livestock sector as a result of the lack of policy and/or regulatory framework, is a paradox, because Liberia needs to develop employment in agriculture; 70 % of the population depends on agriculture as a way of life and a business. The agricultural sector in return is only contributing about 35 % to the GNP. Livestock is the most labour intensive agricultural occupation. The contribution of the livestock sector to the GNP is around 14,4 %<sup>15</sup>.

## **10. Conclusion and Recommendations**

For livestock products a large potential national market does exist in Liberia. Quite some portion of the market that was lost during the war can be retained, even if some import dependency will stay, especially for milk products and beef meat. The precondition is that livestock production gets a higher priority in the agricultural policy, and an intelligent and convincing livestock development strategy is put in place. The production techniques need to be adapted to the country's local context. The constraints must be tackled simultaneously on all

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<sup>15</sup> CASS LIB, cit.op., page 149

ends, from improving the breed and animal health, cheaper and locally produced concentrated feed, better marketing infrastructure , tighter quality and safety inspection, and a step by step hold back of cheap frozen chicken and pig feet imports, as the local production recovers and offers sufficient supply at affordable prices.

The existing legislation and practice pertaining to veterinary sanitary regulations needs to be reviewed and adopted in line with modern standards. The little inspection to imported frozen meat and the tighter inspection of the fresh meat sector is a competition distorting matter that has to be corrected.

The existing programs of NGOs and other stakeholders to re-stock the national herd with a focus on short-cycle ruminants and pigs should be expanded and/or encouraged/supported to increase productivity. To make livestock a pillar in the fight against poverty, food insecurity and unemployment, initiate micro-projects and/or a number of pilot animal production center be established in selected villages, which will train local entrepreneurs in modern livestock production techniques. Within the context of MOA´s livestock strategy, the national institutional environment and infrastructure for livestock needs to be improved.

The trade policy instruments must be decisive, because for the moment foreign supply is disastrous for the rehabilitation of the domestic livestock sector. But since the national consumption patterns and power structures in the meat and egg sector have established themselves, it will not be an easy political task to convince the stakeholders of the status quo about the gains in national welfare by curbing the imports. The high windfall profits for the importers, wholesalers and even retailers of frozen meat will create a strong resistance against any kind of protective trade measure and major change in the market.

Although the present accession process of Liberia to the WTO will make it tough for the Liberian government to justify this situation any increase in tariffs and recourse to defensive trade measures, the examples of Senegal, Cameroon or Nigeria can be cited , who successfully implemented strong import restrictions for poultry products to safe their national economy from a total collapse of broiler production, as happened in the case of Ghana. Liberia has good arguments as a post war country and the fifth poorest country in the world. It can base its reasoning on the GATT-Article XVIII/c of “Infant Industry”. If not for this case of present Liberia, this GATT-exemption does not apply to any case.

# APPENDICES

## **Evaluations of the Interviews of the students with different Stakeholders of the Meat Value Chain**

### **1. Evaluation of the Interviews with Butchers**

The students interviewed six (6) butchers at two locations: The booths in front of the slaughterhouse (S.H.) and on Benson Street. Two (2) of them were small family operated enterprises, the other two (2) part are chain of butcheries. Two (2) hold a professional certificate; the other two (2) are qualified by experience (qbe). All butcheries are registered and licenced to run a meat business. They only trade with beef and sheep/goat meat, no chicken, no pigs. They sell all parts of the animals, but sometime they also have some rests to throw away. 3 of them slaughter in the S.H., but one said also in another place. They buy their live animals from middlemen at the slaughter house.

To meet the market demand , they have to buy imported livestock, especially in the rainy season. The supply from Liberia is not sufficient. They all said they could sell much more meat. When asked, what are the main problems for expanding your business, three (3) said, : tight government regulations. One referred to the competition with imported (deep frozen) meat. They themselves never trade with imported meat. They all said that cheap imports ruin their business, because the fresh meat cannot compete; it is too expensive. All said that the most money with the imports are made by the importers; one also thinks that the wholesalers are also making much profit. The same person also refers to the fact that the people who profit from the imports of meat are big governmental personalities and that the governmental revenues also benefit from the import duties.

All agree that handling meat is dangerous and that sanitary conditions of meat trading are very important. Three think that the governmental rules are too strict; one thinks that the rules are not the problem, because there is a lack of implementation and/or enforcement. All agree that meat inspection is there, but badly going on. One butcher is very outspoken, saying that there is too much

uncontrolled meat trafficking, (i.e., like selling meat on the floor, selling cooked meat on the street) and that this should be forbidden. He thinks that it is unfair that butchers are inspected, but the informal meat selling on the street market is not.

The prices for different parts of the animals are very differentiated:

- intestels: 130 LD per pound ( 4.04 US\$/kg)
- skin 100 ( 3.13 US \$/kg)
- foot 350 (10.94 US \$/kg)
- head 150 ( 4.38 US \$/kg)
- cowhead 175 ( 5.47 US \$/kg)
- cowtongue 175
- cowmeat 250 (7.81 US \$/kg)
- sheep 270 (8.44 US \$/kg)
- goat 270
- flesh 200
- regular meat (meat + bone): 200 (6.25 US \$/kg)

Some cows weight 500 pounds, they can be sold for 1000 to 1300 US \$.

## **2. Evaluation of the Interviews with Consumers**

The group interviewed 24 consumers from different types of markets to capture a wide variety of consumers. All of them were female, between 24 and 64 years of age; the majority were in the 40-ies. 7 interviewed persons were categorised as “low income households”, 3 as high income, and the rest (15) as middle income. The majority of the women took care of households of 4-8 persons, with 1 out of 2 persons earning (high income) and 4 of more than 10 persons.

When they buy meat, they mostly buy chicken meat or dried meat , with only 2 stating a preference for beef (high income). The beef needs to be bought from a local butcher or in the supermarket. The others are buying their meat either in the open market or in the market hall.

Is there a significant difference between the different income classes as per their meat consumption?

There is a significant difference between the meat consumption of the 3 income classes. The middle and higher classes consume more meat. Most of the middle class prepares their meal with meat every day. Only the upper class affords to buy fresh meat.

How important is meat for the average Liberian consumer?

Ten (10) persons said that they cannot imagine a meal without meat or fish; only three said that they have meat very seldom, because they cannot afford it. 3 of the heavy meat eaters only prepare food with meat once the week. If not meat, all of them replace it with fish; only one mentioned vegetable (high income), none eggs or anything else.

Would the consumers prefer local, fresh meat, if they could afford it?

Live animals are only bought at special occasions; but seven (7) persons said that they never buy live chicken, because it is too expensive. All said that they would prefer fresh meat or live animals for slaughtering, but when it comes to what they can afford, most turn to deep frozen meat or dried meat as the most likely preference. There is a preference for fresh meat in the majority of cases because it is tastier; for two (2) persons it is important that meat is safer, and two answered they prefer meat that is easier to prepare. Coming to different meat parts, most refer as highest preference chicken thighs, some also chicken wings. Three persons refer to steak from the cow, but they say they cannot afford it.

Serving honourable persons, ten (10) persons would serve fresh beef meat, 4 whole country chicken and six (6) chicken parts; one mentioned goat and two “others”.

Asked whether they would be willing to spend more money on meat that comes from Liberian farmers, twenty-two (22) answered, “yes”, but only five (5) because it helps the farmers, the others because it is better meat.

Are consumers concerned about health and sanitary hazards of their meat?

All persons said that the hygienic conditions the meat is sold and packed matters very much to them. One is even more specific by stating she would never buy meat from the floor. But twenty-two (22) said that they do not see a problem with the health standard of the meat they buy; only two admitted that not all meat sold is safe. Precisely half of the persons said they often hear of cases that people got sick from spoiled meat; the same number said they have never heard of it. The questions whether they would compromise on the meat quality, if it cheap enough, twenty-two (22) answered; never; only two said, yes because meat is expensive. Asked about how they store meat at home, almost all stated that they steam and keep it; 3 respondents had a fridge, and one is smoking the meat.

How expensive is it to consume meat in Liberia?

When it comes to expenditures, 6 persons claimed they spend about 1000 lb. per week on food, 8 spend 2000 LD , and 10 spend more than 2000 LD . But the percentage they spend on meat from all food expenses varies a lot in all spending-groups, like those who spend less, state that their share of meat expenditures are 20 to 30 %; . In the group of 2000 ld, all but one say they spend 50-60 % on meat, only one just 20 %; in the group that spends most on food 5 say 50 or 60 %, 4 say 20 %.

Asked whether they think that meat is very expensive, 22 answered with “Yes, very “, while two said “no, not at all”.

Asked, whether they would buy more meat if it would be cheaper, twenty (20) answered, “yes”; two (2) would improve the meat quality they consume and one respondent thought that they eat already enough meat. When the income would double, six (6) would like to increase their fish consumption, eleven (11) respondents are satisfied with their meat consumption, and six (6) would eat more of everything.

Who in the family gets and eats most meat?

Who in your household is most eager to eat meat? Five (5) said; everybody; four (4) said the kids; six (6) said the men; five (5) said the ladies; three (3) said the grandparents

Do the people care if the meat is imported, as long as it is affordable?

For six (6) respondents said, it does not matter, whether the meat is imported or local; nine (9) said that the local meat is fresh meat and thus preferable, but unaffordable and only one said it matters, because she wants to support local producers.

How is the meat traded?

Asked how they buy their meat, 14 answered by piles (or pieces), 9 by weight.

Raising animals at home

Ten (10) respondents said that they raise live animals for slaughtering in their backyard.

### **3. Evaluation of the Interviews with Importers**

The students interviewed three (3) importing companies of meat, with a business size of 15, 23 and/or 32 employees. They all had their offices closed to

the port. The companies were 4, 7 and 33 years in operation. All of the importers are wholesalers at the same time.

- 1-) Meat imports are a very important part of their business.
- 2.) The meat they import is all deep frozen meat.
- 3.) It comes into the country in cartons of different size, 15 kg, 20 kg and 30 kg.
- 4.) Two companies pick their meat up directly from the vessel; one company (the bigger one and old establishment) has a cooling-room in the port, where the meat is stored , before taking it out.
- 5.) For those who trade with chicken parts (one said 60 % of his turn-over), one mentions explicitly pig meat too, another one also deep frozen beef meat.
- 6.) The import price for two is 30 \$ per 15 kg, and between 23-30 \$ for other kind of deep frozen chicken parts; the third one stated 20 \$
- 7.) The price stayed stable.
- 9.) All three also import fish, but no other food.
- 12.) One answered that the other importers are influential personalities.
- 13.) Meat importers need a special license from government.
- 14.) They have to show that they have command over a closed frozen chain.
- 15.-17.) One places his orders with commercial traders, with whom they have long standing business relations. The other two buy as the vessels come in and from the cheapest supplier, who might be big meat company or a commercial trader overseas.
- 18.) The meat is picked up from the port by trucks with a cooler; one denies this saying that the trucks do not have a cooler.
- 20.) One says that the selling price for whole chicken is 24 \$ per carton, for chicken parts 18 \$ (the same who buys it for 20 \$). The other two deny any information on the selling price.
- 21-27.) The customs duty has to be paid by the importer as the ship is unloaded. All three state that the duty on meat is too high. The tariff stayed the same over the last years.
- 28.) All three think that the duties and charges on meat imports are high enough to give domestic producers of meat a fair chance.
- 29.) It takes 5 to 7 days between the time the meat leaves the port and the unloading of the ship. 31.) Meat inspection takes place on the vessel before unloading.
- 32.) The meat needs to confine to HACCP-standard.
- 33.) All three think that smuggle with meat is not possible.
- 34.) All three think that the revenues from meat are substantial and important for government.
- 35.) The origin of the imported meat is Brazil and Turkey, according to all three. There was hardly any change.

#### **4. Evaluation of the Interviews with Live Animal Traders**

The students interviewed 5 persons, who trade with live animals at the location of the cow factory (slaughter house). They bring cows, sheep and goats from neighbouring countries (Guinea, Ivory Coast, Mali), where they buy the animals and transport them to Liberia. They are small businesses of maximum 6 employees. Some of them are only selling the live animals, some are also doing the slaughtering in the slaughter house and sell the meat to the butchers. Two are selling as much as 40 heads of cattle, another one only 7. Turn-over is between 1000 and 25,000 US \$, one between 26,000 and 50,000 US \$. All trade with Zebu and N`dama only. All the animals come from an area with year-long pasture grazing. All claim that the competition with the cheap imported meat is very high up to the point that they hardly can withstand. The imports take place mainly in the dry season, when the roads are passable.

The sheep are being sold at 125 US\$, the goat at 100 US\$ per head. The cattle either per head ( 700-1000 \$ for males, 500-800 \$ per females and 100-300 \$ per calves ) or the meat per weight of different parts; the better parts are sold for 3.44 US\$ to 4.36 \$ per kg , in average 2.2-2.8 \$/kg.

To improve the live animal marketing, they mentioned that they need a space near Monrovia, where they can keep and feed the cattle for a time before they send them to the slaughtering house. In order to minimise the cost of transport, they need to carry a whole load. . That would mean so many cattle at a time that the market cannot handle and/or absorb. . The other point they mentioned is that the Government of Liberia should curb the imports of cheap frozen meat.

## **5. Evaluation of the Interviews with Livestock Producers**

The students interviewed six (6) livestock producers in the greater metropolitan area of Monrovia. Since every one of the interviewed farms is so much different from the others, we have to document the results of the interviews by telling the story of each farm separately.

### **Farm 1:**

*The business:* This is a family farm and raises pigs, eighteen (18) small piglets and 4 big ones, and small ruminants (sheep, goats). They farm has just started raising goats. The farm operates on private land. The operation is financed with a total capital investment of about 20,000 LD and/or \$300 USD (personal savings and gifts). . The owner intends to increase the stock by own breeding and multiplication. Most of labor is supplied by four (4) family members, including the owner,

*About the production and costs:* The farmer bought some piglets recently, which he bought for 3.000 LD (40 US \$). He spends less than 10 hours weekly for the operation, but it is a major contribution to the family's income. The

mother pigs give birth to piglets twice a year. Parasite medication was never applied. The farm has never received an advice from any extension agent .  
Marketing -- The farmer sells pigs at the age of 1 to 2 years. The imported meat has no effect on his sales , he thinks. He sells the meat to individual families and private buyers. Slaughtering is done somewhere else, where the animals are transport by the farmer. He sells by head, between 150 – 180 US per a grown-up pig. He does not weight them, thus the farmer has no idea how much he charges per pound. The farmer complains that he has no idea of the on-going market prices.. He would need more market information.

### **Farm 2:**

About the business: This farm raises chickens (1400 birds) and employs thirteen (13) workers with an average pay of \$260 USD per month. This farm is part of a project to empower women and improve their livelihood by increasing their income generating capacity. . \_ The farm received extension services from the Ministry of Agriculture. Presently, the farm is short of imported chicken feeds, as a result, . started to cultivate three (3) acres of corn. Producing their own fodder will help to employ more people for the same amount of animals.

### **Farm 3:**

About the business: This farm raises chickens, ducks and pigs with a workforce of twenty-two (22) persons . It is privately funded and self-supporting. The farmer plans to expand the business every year by 100 to 200 birds. By 2014, the farmer wants to introduce goats and sheep.

\_The farm received advice from MOA; BRAC, CARE and CONCERN. The sales are about 10,000-25,000 USD per year.

Marketing: Meat imports affect the market drastically. The farm sells live birds to. customers come at the farm . The income generated is a major contribution to the family's livelihood.

### **Farm 4:**

About the business: This farm raises pigs only. It is a family farm, operating with family labor operating on communal land. The operation contributes to the family economic welfare and generates additional income that will enable the owner to buy land. He is now saving money to build his own house on the lot. He wants to expand his operation by adding 10-17 pigs every year through multiplication. . He spends over 40 hours a week on his farm business.

:\_ The farm receives no technical advice and/or support from any organization. The farmer needs technical assistance to produce his own pig feeds.

Marketing: The imported meat is really affecting the business. "People who come to buy complain about high prices, due to plenty of meat on the market at much lower price". The farm sells the pigs at any age, on demand. Nonetheless, he sells when the pigs are 1-2 years old. The farmer sold 9 male and 7 female pigs to people, who then slaughter and sell the meat. . He sells the

male pig for 9000 LD (150 US \$), the female for 7000-8000 LD, and the young pigs are being sold for 30 US \$ per piglet. He estimates the price according the look of the animal.

### **Farm 5:**

About the business: This farm is a big operation with 100 employees and all kind of enterprises , including chickens (layers), cattle, 13 horses, 14 donkeys, 3 turkeys, 17 guinea fowls, crocodiles and pigs (370 to 400). A Hotel and restaurant is located on the farm compound. It is owned and managed by a rich industrialist and his energetic wife. It is privately owned and run as a commercial business. They have 12 male and 23 young cows and 9 breeding cattle, ( 44 heads of cattle) of 4 different local breeds. They presently raise 450 layers, from which they produce about 390 eggs a day. The employees receive a monthly pay between 150 to 250 US \$, with housing. . The operation has a slaughter facility on the compound. for chicken and pigs, not for cattle. . Presently, the farm sells chicken eggs only.

: It does not receive any extension service and/or advice from any organization. The cattle are treated every 3 months for parasite medication. Because of shortage of imported maize they need to feed local feed, which is not so productive.

Marketing, . This farm faces a strong competition from cheap imported meat. The cattle will have an average weight of 250 pounds. From chicken keeping they sell the eggs and take them directly to the customers. Since they have not yet sold any cattle, the cattle keeping does not contribute to the income and only costs money. For livestock they see the need to have a cooperative to improve and/or enhance their production and the marketing practices. They have drastically reduced their poultry, from 10,000 at a time to 400 . The imported eggs are just too cheap. The number of layers they raise is limited by the demand from their customers for fresh eggs.

### **Farm 6:**

About the business: This farm raises pigs only: 9 male and 7 female on a public land. The farmer wants to expand the business by another 10 to 17 pigs. . The farmer spends less than 10 hours a week on the operation, but it contributes to the family income.

About production and costs: The farmer would like NGOs to come and provide technical advice on how to produce their own feed.

Marketing, .: The farm sells any time irrespective of the age of the pigs, but on demand . The customers are individual families who pick up the animals with own transport. The farm sells the males for 9000-10.000 LD, the females for 7000-8000 LD and the young ones for 30 US\$.

## **6. Evaluation of the Interviews with Retailers**

The students interviewed thirteen (13) retailers at different markets, selling meat on the street and in market halls. All except one of the interviewed persons were female; most of them in the 20s, two older than 40 years, none above 50 years.

Asked “why do you sell meat?” eight answered because it is a good way to make a living, and three even liked it as a profession. All except one does it since a long time, some for 7 years and longer; only one started it just recently. As retailers, they need a license (permit), which is not hard to get. The level of satisfaction with the trade is high: Only for three persons it is just a matter of survival, for the others a good business or even something they like and want to do forever.

Except one person, they all sell frozen meat only. They sell by small piles, prepared by portioning the meat from the boxes they buy. All persons interviewed are not involved in preparing the meat at any time to sell as cooked or fried food. They all sell on their own account as self-employed, only assisted sometimes by family members. They seem to have their permanent locations, where they sell, some of them on the street, some in the market hall. They sell the meat they get on that day from the wholesaler at a reasonable price, but it is mainly chicken meat.

The boxes they receive are deep frozen blocks. They need to break those blocks, by using an axe or iron bar. Normally, they sell one box a day, sometimes 2 boxes a day. Only three said that their customers are mainly poor people; 10 refer to them as “all kind of customers”. The piles they prepare vary in size and price, (25, 50 or 100 LD). The 100 LD-pile is 1 ½ pound. The fresh meat is 150 LD the pile. The frozen pork seems to be a bit cheaper. The fresh meat is sold by weight, 220 LD per kg. All answer that they decide on the price according to the purchasing price they have to pay on that day. Since the wholesale prices vary much, the retail prices also vary much. The cheap parts are selling best, but sometimes they also sell the higher quality parts better. As the day goes on and not everything has been sold, they lower the selling price. Most of the times they sell everything that is apportioned on a given day, but there are times when some meat is left over.

All of the retailers interviewed are aware that the meat they sell is imported and that deep frozen chicken parts are the cheapest. They say that imported meat is cheaper, few said it is also better. One does not care if imported or not. But all say they do not care where it really comes from, even if they know that the origins are USA, Europe or Brazil; one also mentioned India as origin. All of the respondents mentioned that the prices of imported meat have increased in recent times and that they do not know if the origin of imported meat to Liberia has changed in recent times.

Half of the group says that sometimes it happens that there is not enough meat available to purchase from the wholesalers, the other half answers that the wholesalers have all the meat they want. All say they take the unsold rests home to eat; at home they eat the same meat they sell.

They all say they freeze the left overs overnight and sell them the next day. All say that one can only keep meat in the open for one day, before it has to be disposed. All respondents admit that handling meat is a delicate health matter; they have to be careful, and they believe that the sanitary laws in place are adequate to ensure food safety.

## 7. Evaluation of the Interviews with Wholesalers

The students interviewed 5 wholesalers of meat, of which 3 said they are part of a bigger business in food marketing; the other two called themselves small businesses. Only one of them only trades with deep frozen meat, the other also with other sorts of meat and fish. All of them do not add any value to their products; they sell the boxes the same way they buy them in the port without any processing, only storage and transport in between. All of them trade in chicken and pork, but for pork they handle pig head or feet only.

Their sales are 200, 400 and 900 boxes and/or cartons weekly, with each box weighing, either 10, 15 or 20 kg. They sell to any person (mainly retailers) who buy by cartons and sell portions of the cartons to others. The retailers sell the meat on the street, in market halls or in small shops.

A box and/or carton of mixed chicken parts is sold for 19 to 24 US \$ (per 10 kg), chicken feet only for 13 US \$, pork for 17 US \$ and the pork head for 14 US \$ . The price difference between different chicken parts does not seem to matter to the retailers. .

The wholesalers buy their meat from importers, except one wholesaler who buys directly from the port. When asked, where does the meat come from, they replied: India, Brazil, USA and Europe, but some of them do not know. The country of origin of the meat does not make much of a difference to them, as long as the meat is cheap. All interviewed persons mentioned that the countries of origin have changed slightly, but did not specify how. Imported meat is always sold in boxes and/or cartons and deep frozen, while the local fresh meat is sold by weight.

It is unclear who and where the import duties are being levied: as the commodities leave the port, paid by the wholesalers, or as the ship gets

unloaded, paid by the importers. Some mention they have to pay also for port fees, cost for unloading the vessels and taxes. Asked, who the importers they buy from are, all refer to them as “big business”. All say they pick the meat up from the ports with trucks that have a deep freezing facility on board; only one negated and claimed that ordinary trucks can be used for pickup. There is constant and sufficient supply of deep frozen chicken parts on the market, but with high degree of fluctuation in the prices. The wholesalers change their selling prices, as the importing prices changed . Since most of them do not trade with fresh local meat, there is nothing they can say about domestic meat, except that there is a big difference in price and quality, and that there is no enough domestic meat.

All wholesalers have cooling facilities where their meat is stored. The customers do not need to store or freeze, because they sell directly. Meat that cannot be sold will be thrown away. They claim that there is no interruption of the deep frozen meat value chain; and if, it is of no impact. The meat has an expiration date, which theoretically is relevant, but hardly observed. Three (3) out of five (5) respondents said that the meat trade is too much regulated in Liberia, and the other two (2) said too little.

## **8. Evaluation of the Interviews with Slaughterhouse**

There is only one slaughterhouse (S.H.) in Liberia and it is located at Somalia Drive in Monrovia. It operates with 30 employees; most of them are Muslims. The Government owns it, but has leased it to a private businessman. It is estimated that 50-70 per cent of all the slaughtering in Liberia takes place at the slaughterhouse (the rest is backyard slaughtering). .

The S.H. is engaged in buying live animals, slaughtering them and selling the meat to butchers and the public. Butchers also carry live animals for slaughtering there to take the meat home for selling it at their shops. The S.H. buys animals from local farmers as well as from neighbouring countries (i.e., Mali, Guinea, Ivory Coast, Sierra Leone). Most of the foreign suppliers are Muslims (Fula-People).

According to the S.H., because of the imported deep frozen meat on the market, there is enough livestock raised in the country to satisfy the demand for live animals. The meat from the S.H. is high priced, safe and of best quality. The price the farmers get is good, but the volume of the market is limited. To expand the livestock and fresh meat market, government should improve above all the marketing conditions.

The S.H. thinks that there could be a danger with deep frozen meat, because much is not properly handled. The sanitary and veterinarian laws in Liberia are

hardly enforced and/or poorly carried out. The meat industry in Liberia is a growing industry, because meat consumption is very important to the people.

### 9: Liberia's Rice Import Dependency

	2000	2004	2006	2007	2008	2009	2010
Rice Area ha	143,500	120,000	130,000	160,000	190,000	247,000	251,230
Yields (t/ha)	1.28	0.92	1.26	1.45	1.55	1.18	1.18
Production (t)	183,400	110,000	164,006	231,806	295,150	293,000	296,090
Consumption (t)	243,684	241,534	383,710	397,069	422,000	445,500	465,276
Imports (t)	121,340	162,266	324,208	222,732	140,000	101,359	82,973
Value Imports (Mio \$)	37	22	176	116.79	200	65.7	47.3
Import ÷ Consumption	49.8 %	67.1 %	84.5 %	29.4 %	33.1 %	22.7 %	17.8 %

Source: Liberian Rice Balance Sheet

### 10: The Scale of Different Meat Market Prices in Liberia

Scale from 0 to 10 (prices of meat US \$ / kg in Liberia:

Range from 0.40 to 0.80: fob-prices of deep frozen chicken parts

1.30 wholesale chicken feet

1.40 wholesale pork head

1.80 wholesale pork legs

1.9-2.4 wholesale mixed chicken parts

2.5-3.00 retail mixed chicken parts

3.13 retail fresh pork skin

3.44 wholesale fresh cow meat

4.05 retail intestels  
4.17 live chicken in Nimba County  
4.55 wholesale fresh good beef meat  
5.32 wholesale fresh goat meat  
5.47 wholesale cow head or cow tongue  
6.25 retail regular fresh meat (meat with bones)  
8.44 retail fresh aheap  
10 live chic