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REPORT ON A VISIT TO CAMEROON TO ESTABLISH THE MARKET POTENTIAL OF KILISHI AND SMOKED BEEF MEAT IN DOUALA AND YAOUNDE

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THE MARKET POTENTIAL OF KILISHI AND SMOKED BEEF MEAT IN DOUALA AND YAOUNDE

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ABBREVIATIONS

FCFA = Francophone Franc
kg = Kilogram
NRI = Natural Resources Institute
IRZV = Institut de Recherches Zootechniques et Veterinaires'

EXCHANGE RATE

£1 = FCFA 819

SUMMARY

1. This study reports on a visit to Cameroon to establish the market potential in southern Cameroon for two products. These products are a dried meat snack called kilishi and a main-meal meat product called smoked beef meat. The market potential for kilishi was investigated in order to establish whether the income of kilishi producers could be expanded. The market potential for smoked beef meat was investigated to establish whether it could partially replace the present consumption of smoked bush/game meat in Cameroon.

2. Market potential was investigated through the use of a questionnaire and a formal interview with market participants for each product. Responses to the questionnaire were then collated to form a market survey of production, the retail sector, and consumer preferences.

3. The results of the market surveys for kilishi indicate a strong enthusiasm by kilishi producers to expand production and to develop new markets in the south of Cameroon. The prospects for such market expansion, would seem to be promising as both consumers and retailers were impressed by the quality, taste and appearance of kilishi.

4. Harnessing this potential will require further work. Existing producers act independently of one another and have no empirical knowledge of market prospects outside their production areas. Moreover, knowledge of other producers is extremely limited. This situation contrasts starkly with the conditions considered necessary by retailers and consumers in the South. Surveys of these groups indicated the necessity for promotion, standardisation and co-ordination of supply if the market is to be developed.

5. It is considered that progress towards realising the potential established by the marketing surveys, must be approached by first conveying the results of the research to producers. As all producers are located within the private sector, it is apparent that a strategy for both expanding and refining production must be producer-led. It is **recommended** that a suitable vehicle for initiating such a strategy would be a workshop in Cameroon, convened by NRI and IRZV, which will bring together producers and potential retailers. This workshop will principally be informed by the results of the marketing surveys and will then seek to engage and nurture producers response to the marketing information. ODA desk funding will be sought for the workshop.

6. The results of the market survey into the potential for smoked beef meat to partially substitute the consumption of smoked bush/game meat revealed poor prospects for the product. The major reasons for this finding are: a strong consumer preference for the taste of smoked bush/game; the perception that smoked beef meat is an inferior product; and the failure of present regulations to restrict the commercial trade in smoked bush/game animals, resulting in widespread availability of smoked bush/game meat in the urban markets of the south of Cameroon.

7. The Government of Cameroon is currently reviewing regulations on the trade in smoked bush/game animals. The review will focus on reducing the trade in such animals in order to foster environmental sustainability. The thrust of the review will be to impose the full social cost of consumption of bush/game meat through the introduction of a fee and licensing system for retailers of smoked bush/game meat. This is anticipated to increase the cost of smoked bush/game meat considerably.

8. Effective regulation of the smoked bush/game meat trade will enhance the prospects for smoked beef meat. However, it is considered that due to strong consumer preference for smoked bush/game meat and its widespread availability, until such regulations are finalised and implemented, the promotion of smoked beef meat would have limited impact on substituting the consumption of smoked bush/game meat. It is **recommended** that once legislation is in place, that a review is undertaken by NRI to re-investigate the potential of smoked beef meat to partially substitute the consumption of smoked bush meat.

I. INTRODUCTION

Background

1. This study has two components. Firstly, it concerns the market potential in southern Cameroon for a dried meat product called kilishi. Secondly it investigates the current market demand for smoked bush meat and the possibilities for substituting such meat with smoked beef meat. The study follows on from an earlier NRI report which examined the opportunities for adaptive research with kilishi and smoked meat in Cameroon[1]. The study was funded by the Overseas Development Administration (ODA), under the Livestock Production Programme Adaptive Research Initiative of the Renewable Natural Resources Research Strategy.

2. Kilishi is a dried sheet of spicy meat produced predominantly in the north of Cameroon and is principally consumed as a snack food. Smoked bush meat is any wild animal which after being caught and killed is smoked for preservation and which is then sold as meat for a main meal. Whilst these two products appear in the same report, they are distinct products belonging to quite separate markets. Accordingly, the first part of this report deals with the research into kilishi, the latter part then moves on to analyse smoked bush meat.

3. The study was executed in collaboration with the 'Institut de Recherches Zootechniques et Veterinaires' in Cameroon. The study reports marketing fieldwork which was undertaken between 24.11.94 and 16.12.94. This fieldwork was conducted in parallel to research conducted by an NRI meat technologist on the food safety of kilishi.

4. The report begins with a description of the objectives and methodology employed in the kilishi fieldwork. This is followed by the presentation of results and analysis of research findings into the market potential for kilishi in southern Cameroon. The section ends with a series of recommendations aimed at realising such market potential

5. The second part of the report concerns the market potential of smoked beef meat. The section begins with a description of the objectives and methodology of the market research. This is followed by a presentation of the results and analysis of the market research. The section ends with conclusions on the potential for smoked beef meat.

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[1] See, Silverside D. (1994) *Report on a Visit to Cameroon to Examine the Opportunities for Further Adaptive Research into Dried Meat.* R2080(S), Internal Report, NRI Chatham.

Terms of Reference

6. The following terms of reference guided this study:

Kilishi

Establish the market potential for kilishi in the south.

Establish the interest of actual and potential buyers from the south who might be interested in purchasing more meat from the production area.

Determine the implications of kilishi production on production of other types of meat and its by products.

- Make recommendations on a strategy to realise market potential

Smoked Meat

Establish the market potential for smoked meat in the south.

Establish the interest of suitable producers in N'gaoundere.

Determine the implications of smoke-dried meat manufacture on production of other types of meat and its by-products.

II KILISHI

Background to Kilishi Production

7. The manufacture and preparation of kilishi has been described in earlier research work by NRI[2]. To summarise, kilishi is made from high quality beef meat obtained from the fillet and hind quarters of the carcass. The product is then sliced into a thin sheet and dried with a preparation of spices and groundnuts. The product is valued for its taste and storability and is generally consumed as a snack food.

8. Kilishi is produced predominantly in the north of the country. This is the area where the majority of Cameroon's livestock is located. In 1992, it was estimated that there were 4,730,000 cattle in Cameroon (FAO 1992). Annual off take is estimated at approximately 11 % or 520,000 cattle (*Ibid*).

9. No data exist on the number of cattle used to produce kilishi. This study, through the use of production surveys will offer an estimate of this figure for the main production sites (see below). The main production sites are N'gaoundere in Adamawa province and Garoua in the North province. Kilishi is also produced in Yaounde and Douala by families who originate from the northern provinces of Cameroon.

Objectives and Methodology of Study

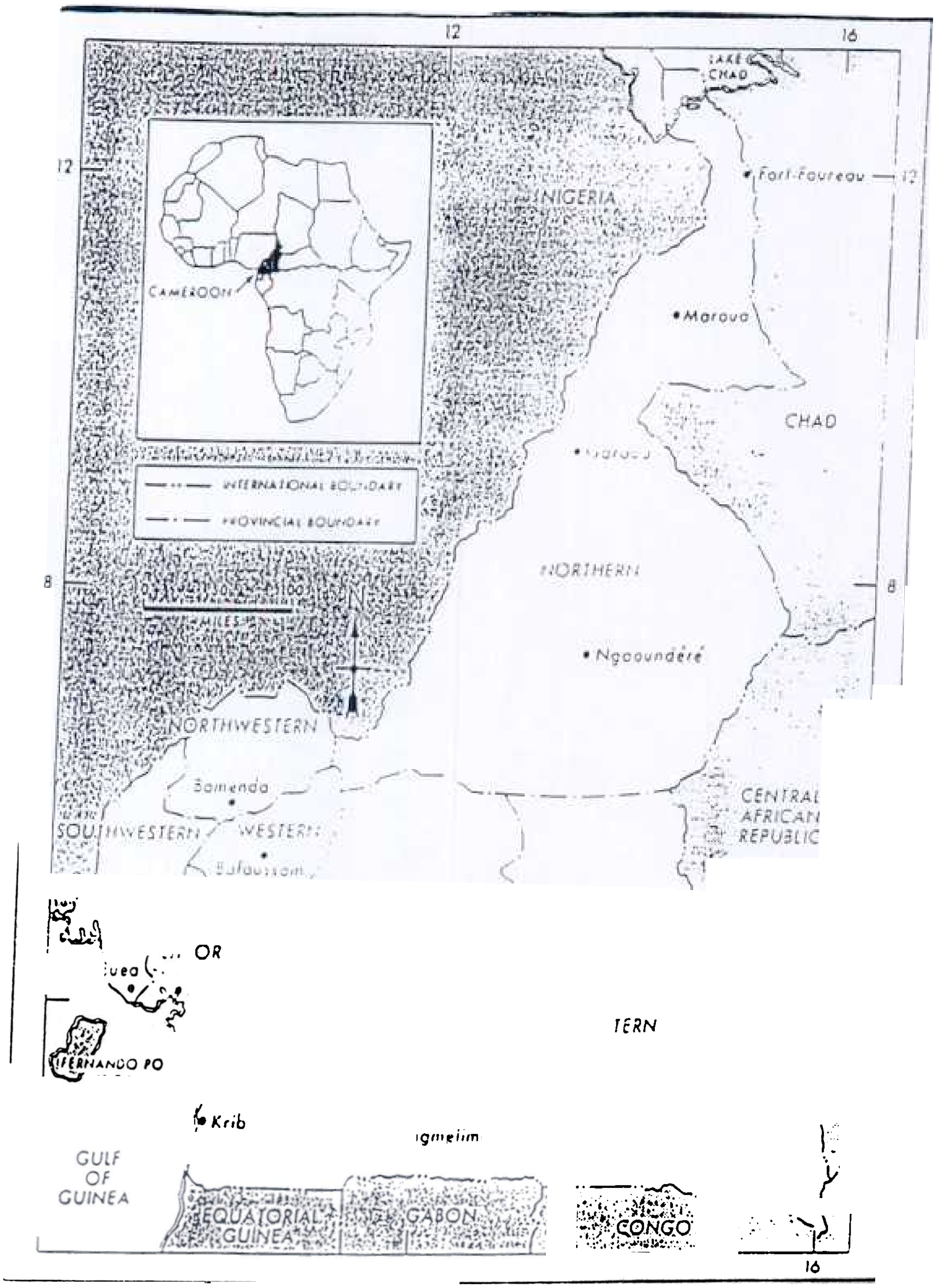
10. The aim of this study was to establish the market potential for kilishi in the south of Cameroon. The principal methodology for this investigation was the use of structured interviews with actual and potential market participants.

11. The investigation involved a survey of kilishi producers in two key production sites in the North of Cameroon. The sites were N'gaoundere and Garoua.

12. Market potential was investigated through a survey of potential suppliers and consumers from the national capital of Yaounde and the business capital, Douala. Map 1 shows the location of each site within Cameroon.

The reader is directed to Silverside 1994) and Kleih 1993).

MAP 1 The Republic of Cameroon



Production Survey

13. The purpose of the production survey was to provide insights into the structure, volume and economic attributes of kilishi production in Cameroon. This information was considered as vital to the study of future market potential as the level of production, relationships between producers, knowledge of market and inherent profitability of present volumes and production methods are key issues in the realisation of market potential.

14. The instrument for obtaining the necessary information was a structured questionnaire focusing upon kilishi production and producers characteristics. This questionnaire formed the basis of extensive interviews with producers, with enumerators completing the questionnaire as the interview progressed. The questionnaire is reproduced in Appendix 1. Interviews were conducted in French and local languages[3]. The questionnaire sought information on the: level of production of individual producers; economic viability of current production levels; relationship between producers of kilishi; individual producers knowledge of market structure; seasonality of supply; and interest and capacity of individual producers to increase supply volumes[4].

15. Producers were located with the aid of information gathered by the NRI meat technologist and IRZV local knowledge of production sites. An attempt was made to interview all producers in N'gaoundere and Garoua in order that total production in both locations could be estimated.

16. In N'gaoundere, eight producers were identified and interviewed between 28.11.94 and 1.12.94. In Garoua, 11 producers were identified and interviewed between 5.12.94 and 9.12.94.

Retail Survey

17. The purpose of the retail survey was to: establish the interest of a range of established meat snack retailers in Yaounde and Douala in stocking and selling kilishi; determine the present pattern of meat snack sales in both cities; and establish the trade requirements of retailers interested in stocking kilishi.

[3] The main languages were Haoussa and Fufulde.
[4] Questions on social/family status were also included in the questionnaire for follow-up work of interest to the soci-economist at IRZV.

18. A range of potential retail outlets in the main commercial districts of each city was surveyed. The range of outlets included: two-star hotels; one-star hotels; unclassified hotels; bars; restaurants; and roadside stalls.

19. The survey included a range of retail outlets for three reasons. Firstly, it was assumed that different categories of retail outlet would have different scales of turnover. For example, the turnover from a two-star hotel maybe higher than a roadside stall. Secondly, the storability and divisibility of kilishi means it can be sold in a variety of weights and at different types of retail outlets. Finally, it was necessary to establish whether particular categories of retail outlet were more interested in kilishi than others. This information could then be used to target particular retail outlets in a marketing campaign.

20. The commercial districts were selected on the basis of the following assumptions:

The main commercial centres have the highest concentration of retail outlets trading in food snacks. Commercial areas also attract large numbers of meat snack consumers during the daily lunch break.

- The commercial and market areas would, *a priori,* be key areas to target a marketing campaign for kilishi.

21. With the aid of packaged samples of kilishi, the proprietor of each retail outlet was interviewed. The structure of the interview was determined by a questionnaire which was completed by an enumerator as the interview progressed. The questionnaire is reproduced in Appendix 2. Interviews were conducted in French and Pidgin English.

22. In Douala, 30 retail outlets were surveyed between 5.12.94 and 9.12.94. The same number were surveyed in Yaounde between 11.12.94 and 14.12.94.

Consumer Survey

23. The objective of the consumer survey was to establish the potential interest of meat snack consumers in Yaounde and Douala in consuming kilishi. Using packaged samples of kilishi, interviews were conducted with potential consumers on the basis of a structured questionnaire. The questionnaire was completed by an enumerator as the interview progressed and was conducted in French and local languages. The questionnaire is reproduced in Appendix 3.

24. The questionnaire sought to establish insights into the: present meat snack consumption pattern in Yaounde and Douala; present consumer awareness of kilishi; consumer evaluation of kilishi following introduction and sampling of product; consumer interest in future consumption of kilishi; consumer preference for point of sale of kilishi; and consumer price sensitivity towards kilishi.

25. In Yaounde, 32 consumers were sampled. In Douala the figure was 29. The sample size was pre-determined by the number of packaged samples of kilishi which were available for the survey. The survey was conducted in Douala between 5.12.94 and 9.12.94. The survey in Yaounde was conducted between 11.12.94 and 14.12.94.

Kilishi Production in N'gaoundere

26. Pre-survey investigation revealed that there are eight major producers of kilishi in N'gaoundere. A detailed breakdown of responses to the questionnaire is provided in Appendix 4.

Results

27. The majority (seven) of kilishi businesses in N'gaoundere are **family-run and family owned**[5]. Only one business was reported as being organised on a non-family basis. This business was a partnership between a number of businessmen. All businesses are run by males, whose average age is 35. All producers in N'gaoundere are Muslims, with French being the major language.

28. Despite the extensive use of family labour, six producers reported using wage labour. In total 14 people are employed by kilishi producers in N'gaoundere. Most are reported as receiving low or no wages, as one producer stated '...the skills of the business are being imparted to them, they should be paying me!'

29. The average number of years that kilishi producers have been operating in N'gaoundere is nine years. Four businesses have been established in the last four years. Three businesses have existed for over twelve years. One businessman reported that he had been operating for 27 years.

30. Kilishi production is financed almost exclusively from family capital. Only one producer reported that he obtained trade credit from a butcher for the meat used in

[5] Labour is drawn from the family unit. It should be noted that the Islamic family unit can include up to four wives.

production. No producers used formal credit to finance their business activities.

31. All kilishi producers claim that due to falling demand, production has contracted since last year. The majority of producers ascribe this change to 'economic crisis' rather than shifting patterns of demand away from kilishi. Most producers anticipate that a recovery in demand for kilishi would follow improvement in the economy in Cameroon. No producer was able to quantify how much their production had fallen.

32. At present, kilishi is sold by producers at the following prices: FCFA 1000 (£1.22); FCFA 500 (£0.61); FCFA 300 (£0.36); FCFA 200 (£0.24); and FCFA 100 (£0.12). The survey revealed that the majority of kilishi is sold in FCFA 500 (£0.61) pieces, with FCFA 1000 (£1.22) pieces being the next most popular size. The combined weight of sales of kilishi per week is estimated at 187.81 kgs.

33. Kilishi producers do not maintain formal records of their business activities. Moreover, kilishi producers neither pay corporate income tax nor are subject to any licensing arrangements. As a result, there is considerable difficulty in obtaining accurate financial and profit data on kilishi production.

34. To obtain insights into the profitability of kilishi production, basic cash-flow and profit data was constructed from the responses obtained from producers. Due to the commercial sensitivity of this information, it is not reported for individual producers in this paper. However the data revealed that the total annual turnover is approximately FCFA 56.13 million (£68,540).

35. Kilishi producers do not separate returns to family labour (i.e. wages) from returns to investment (i.e. profit). In deriving estimates of profitability, it was necessary to impute family labour costs[6].

36. All eight producers were found to profit from kilishi production. Indeed, after annualising capital costs and imputing labour costs, the average kilishi

[6] These were estimated by multiplying the number of principal workers in each business by the average monthly minimum wage. The monthly minimum wage is used as the approximate opportunity cost of the labour used to produce kilishi. All kilishi producers were found to have not completed formal education beyond primary school. As a result the average monthly wage for primary school leavers in urban areas was used. Discussions with government officials reveal that the average monthly wage for this group is approximately FCFA 20,000. Imputed labour costs ignore the input of children into the production process.

producer in N'gaoundere derived a net income of 37 % on their production and retail costs.

37. Due to the absence of corroborating secondary data, this figure should be treated with some caution. However, it indicates that although trade is reported to have fallen, kilishi producers have been able to maintain significant profitability in their production.

38. The production survey revealed that on average, 470 kg of fillet and hind quarter are purchased by kilishi producers per week. On the assumption that on average there is 45 kg of fillet and hind quarter per animal, this translates into a requirement for approximately 10 mature cattle per week for kilishi production in N'gaoundere[7].

39. With no significant variation in annual production reported, kilishi producers require an equivalent of 540 cattle per annum at present production levels. At an average price of FCFA 838 (£1.02) per kilo, this market is worth approximately FCFA 20.48 million (£25,000) per year.

40. All producers indicated that their major market was N'gaoundere and the surrounding villages. Although one producer has adopted a system whereby young boys hawk his kilishi in the local market, all producers reported that no marketing of the product takes place beyond the point of sale in N'gaoundere.

41. Six producers reported significant sales to customers from outside the Adamawa Province. However, these sales are made from N'gaoundere to individuals travelling outside the province. In the last year it is reported that sales outside the province have increased for one producer, remained stable for two producers and declined for three producers.

42. When asked, all producers expressed a desire and a capacity to expand production. All producers also indicated that they had the capacity to double output. One hundred per cent of producers also highlighted their interest in forming links with traders to exploit the market outside N'gaoundere. Many producers considered that there was potential outside N'gaoundere, but had no information on market opportunities. One producer indicated that in the past he had sold kilishi to a trader, but this arrangement had been marred when the

[7] The latest available figures indicate that on average, 10,000 cattle are slaughtered in Cameroon per week (Silverside 1994). The figure of 45 kg was obtained following interviews with butchers in Yaounde and Douala.

trader began to dictate production conditions to the producer. No producers currently had business relations with traders.

43. When asked about the local market, no producer was able to provide an accurate estimate of the number of fellow producers, let alone any estimates of the total market in N'gaoundere. No producer was able to offer any information on production outside N'gaoundere.

Kilishi Production in Garoua

44. Pre-survey investigation revealed that there are eleven major producers of kilishi in Garoua. A detailed breakdown of responses to the questionnaire is provided in Appendix 5.

Results

45. All kilishi production businesses in Garoua is managed by and family owned. All businesses are headed by males, whose average age is 39. The dominant religion of producers is Islam, with only one producer being a Christian. French is the major language for all producers.

46. Kilishi producers in Garoua are well established. The average number of years in business for all producers is seventeen years. Just over 45% of kilishi producers reported being in business for over 20 years.

47. Nine kilishi producers use family capital to finance their activities. Two producers use trade credit. With the exception of one producer, all producers employ wage labour. A total of 27 people are employed in Garoua, although as in N'gaoundere, the majority receive low or no wages.

48. At present, kilishi is sold by producers at the following prices: FCFA 1000 (£1.22); FCFA 500 (£0.61); FCFA 300 (£0.36); FCFA 200 (£0.24); and FCFA 100 (£0.12). The survey revealed that the majority of kilishi is sold in FCFA 1000 (£1.22) pieces, with FCFA 500 (£0.61) pieces being the next most popular size. The combined weight of sales of kilishi per week is estimated at 237.95 kgs.

49. As in N'gaoundere, kilishi producers do not maintain formal records. Likewise producers are not embraced by taxation authorities or subject to licensing regulations. Although the survey was designed to elicit information on income and profitability, due to commercial sensitivity, actual figures for individual producers are not reported

in this paper. Total turnover is estimated at FCFA 70.93 million (£86,610) per annum.

50. All eleven producers were found to derive a profit from kilishi production. After capital costs had been annualised and labour costs imputed, the average net income received by producers was 23% of their production and retail costs.

51. The survey revealed that on average, 727 kg of fillet and hind quarter is purchased per week. This is equivalent to 16 mature cattle. With no producer reporting any seasonal variation in production this is equivalent to 832 cattle per annum. The average price of meat per kilo in Garoua is FCFA 789 (£0.96) per kilo. Accordingly, annual expenditure on fillet and hind quarter is equivalent to FCFA 29.82 million (£36,420) per year.

52. All producers reported that their major market was Garoua. However, 63% also indicated that they had significant customers from other provinces. As in N'gaoundere, sales to customers outside the local market were not achieved through any active marketing but resulted from individuals purchasing kilishi in Garoua and then travelling with the product to other provinces. In the last year it was reported that sales to customers travelling outside the province had remained constant for 70% of producers and had fallen for 30% of producers.

53. All producers expressed a capacity for and a desire to expand production and form links with traders to exploit the market outside Garoua. However, knowledge of this market was very limited. No producers had actively engaged in market research or established links with traders in the past. Many traders cited a lack of trust and familiarity with trading relations as the main cause of this situation. Producer's knowledge of the kilishi market in Garoua was limited. Whilst 54% were able to estimate the total number of producers in Garoua at over 5, none was able to estimate the size of the local market. When asked about production outside Garoua, no producer was able to offer any information.

Kilishi Production in Douala and Yaounde

54. Although producers in the target market sites were not incorporated into this study, sufficient levels of production were seen to exist in both cities to warrant inclusion in this report.

55. In Douala, kilishi is produced in an area adjacent to New Bell Market. Informal discussions with kilishi

producers revealed the existence of five major producers all supplying the local market. In Yaounde, six producers were identified in the Bricketerie area of the city.

56. From informal discussions with producers in Douala it is possible to estimate that the annual turnover for kilishi is approximately FCFA 6-8 million. In Yaounde annual turnover is estimated at FCFA 8-10 million. These figures are considerably below those recorded in Garoua and N'gaoundere.

57. Producers in both cities explained that production in the city is oriented specifically for the 'northern people' and Muslim populations of each city. No attempt is made by producers to market the product to other consumer groups or at retail outlets in either of the cities.

58. A marketing campaign by northern producers will undoubtedly impact upon local producers. However, if the focus of the northern producers campaign is upon retail outlets, which are as yet not exploited by southern producers, the impact upon the income and welfare of southern producers is assumed to be minimal. A possible outcome of a marketing campaign by northern producers is that southern producers might also attempt to begin exploiting the retail market. This outcome will be crucially dependent upon price competition and quality. On the latter it was observed that the quality of kilishi produced in Douala and Yaounde was inferior to that produced in the north. The major reason for the inferior quality was the prevalence of large holes in the sheets of kilishi. As has been explained elsewhere, this indicates a low level of skill and produces a product unattractive to customers[8].

59. On price, it was observed that kilishi in both cities is nearly twice as expensive as in N'gaoundere and Garoua. An explanation for the higher cost of product in Douala and Yaounde is the price of raw meat[9]. Average raw meat costs are reproduced below in Table 1.

60. Table 1 clearly shows the price advantage that producers in the north have over those in the south. The major explanation for price differences is the transport costs involved in moving cattle from the north to the southern cities[10].

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[8] See Kleih (1993).

[9] During the production surveys in the north of Cameroon, it was established that the major item of cost in kilishi production is raw meat (see above).

[10] These costs include formal costs such as freight rates and informal costs such as non-official payments to government officials

Table 1: Raw Meat Prices in Cameroon

Location (North to South)	Average Price (FCFA) Per Kilo of Fillet and/or Hind Quarter
Garoua	789
N'gaoundere	838
Yaounde	1500
Douala	1400

61. If northern producers are to engage in arbitrage, they will have to ensure that they transport kilishi efficiently and at low cost. This issue is treated more extensively following the presentation of results from the kilishi consumer and retail surveys below.

Conclusions

62. The production survey revealed that the total number of kilishi producers in N'gaoundere and Garoua was 19. These producers have a combined annual turnover of FCFA 127.39 million. The major centre of production in terms of volume is Garoua, although average production levels per producer are higher in N'gaoundere. Producers in both locations have no formal business relations with each other and do not engage in any form of co-operation. No producers currently have business relations with traders. Although all producers wish to exploit the market in the south, producers knowledge of the potential of this market is very limited.

Kilishi Retail Survey

63. Thirty existing meat snack retail outlets were surveyed in Yaounde. The same number of outlets were surveyed in Douala. This number was predetermined by the availability of packaged kilishi samples which were necessary for eliciting informed responses from retailers to the product during the interview[11].

The latter are reported by traders as significant, but by their nature difficult to quantify. On the former, estimates from the Provincial Delegate of Livestock in N'gaoundere put the average cost of transporting cattle from N'gaoundere to Yaounde at FCFA 12,000-15,000 per head depending on the mode of transport and size of consignment (Personal Communication, November 1994).

[11]In both cities consumers were given samples of kilishi which were produced in N'gaoundere. These samples were taken from sheets of kilishi purchased for the **retail price of FCFA 1,000** in N'gaoundere. Approximately 25 samples were obtained from each FCFA 1,000 sheet. The average retail cost of each sample was therefore equal to FCFA 40. The kilishi had been subjected to a bacterial analysis by the NRI meat technologist and confirmed as fit for human consumption. The kilishi samples had been packaged in plastic bags and sealed with sticking tape.

64. Retail outlets were selected from commercial districts in each city. In Douala, the areas were Akwa and New Bell. In Yaounde, the areas selected were: Mfoundi Market/Railway, Ministry and Central Town.

65. In Douala, government authorities were able to provide information on the number of retail establishments in New Bell and Akwa. As a result of this information it was possible to calculate the proportion of each category of retail establishment within the total number of retail outlets. This proportion was then used to determine the weight of establishments surveyed in each category. Table 2 reports the total and sample number of establishments surveyed in Douala.

Table 2: Sample Distribution in Douala[12]

Category of Retail Outlet	Total Number in Akwa and New Bell	Proportion of Total	Sample Size
Bar	31	43	13
Restaurant	14	20	6
Roadside Stall	9	13	4
Unclassified Hotel	7	10	3
Two-Star Hotel	5	6	2
Supermarket	3	4	1
One-Star Hotel	3	4	1
Total	72	100	30

66. There were no available data on the total number of retail outlets in the areas selected for survey in Yaounde. As a result, it was not possible to weight the sample of retail outlets surveyed. Instead, the areas surveyed were allocated weights on the basis of enumerators knowledge of the areas coupled with a pre-survey of the areas to estimate the numbers of establishments.

67. A final consideration on the selection of retail outlets in Yaounde was an initial analysis of results

[12] To obtain a weighted sample, the number of establishments selected in each category was based upon each category's proportion of the total number of establishments in the survey area. For two categories, supermarkets and one-star hotels, this resulted in a sample size of one. Although the sample size for these two categories maintains the integrity of the weighted sample (i.e. that the most numerous types of establishment were surveyed), it is likely to introduce some element of bias into the results for these two categories.

from the kilishi consumer survey (see below) in Douala. This survey indicated a clear consumer preference not to see kilishi sold by the roadside. Accordingly, a higher proportion of other types of establishment were surveyed The resulting sample distribution is shown in Table 3.

Table 3: Sample Distribution in Yaounde

Category of Retail Outlet	Sample Size
Bar	16
Restaurant	4
Roadside Stall	1
Unclassified Hotel	1
Two-Star Hotel	2
Supermarket	4
One-Star Hotel	2
Total	30

68. Once the sample size for each category of establishment had been determined, every second establishment was selected by enumerators until the quota for each category had been filled.

Results for Douala

69. A detailed breakdown of responses to the questionnaire is provided in Appendix 6. The retail survey revealed that only ten per cent of retailers had sold kilishi in the past. No retailers currently sold kilishi. Despite this lack of familiarity, after inspecting samples of kilishi and tasting the product, 97% of retailers expressed an interest in selling kilishi in the future. Many retailers noted the potential ease of storability and shelf life of the product.

70. The retail survey indicated that those retailers interested in selling kilishi would expect to add an average mark-up on the wholesale price of 49%. This mark up is a retail mark-up and as such assumes that the wholesale price includes, packaging and transport costs to Douala.

71. Potential retailers were asked their preference for mode of purchase from suppliers. Purchasers were given the following options and encouraged to choose more than one option if they wished:

purchase outright for cash

commission basis

credit from supplier

72. In total, 48% of retailers expressed a preference for purchasing outright for cash from suppliers. Just under 38% of retailers elected for commission based sales with 14% of retailers interested in credit terms from suppliers.

73. For kilishi to compete with existing meat snacks, the price at which it will be sold will be important. Consumer price sensitivity was investigated in the kilishi consumer survey (see below). On the retail side, an examination of current snack availability was undertaken.

74. At present meat snack retailers sell a variety of products. The most popular meat snack in Douala is a beef snack called 'suya'. This product was sold in 46% of the outlets surveyed. The next most popular snack was 'meat balls'. These were sold in 16% of outlets surveyed. The full range and snacks and the number of outlets in which they are sold is reproduced below in Table 4. This table also indicates the turnover of snacks in a typical week and the average price of each snack across all types of establishment.

Table 4: Meat Snack Sales in Douala (Per Week)

Meat Snacks Sold in One Week (All retailers)	Number of Outlets	Percentage of Total	Total Value (FCFA)	Average Price Per Meat snack[13] (FCFA)
Suya (beef)	14	46	574,450	118
Intestines	7	23	203,250	101
Meat Balls	5	16	268,000	660
Kebab	4	13	208,520	623
Boiled Skin of Cow	3	10	44,000	100
Pork	1	3	35,000	1,000
Pepper Soup	1	3	21,000	1,500
TOTAL (FCFA)			1,354,220	Av. = 586

75. Table 4 indicates that with the exception of 'boiled skin of cow', the most widely available meat snacks are also the cheapest snacks. From the retailers point of view, the turnover of 'suya' is over twice as much as meat balls - the next highest selling snack.

76. Table 5 presents data on non-meat snack sales in the survey.

[13] Meat snacks are any type of meat which is prepared and sold in small individual pieces. Consumers often purchase more than one piece of meat to make a 'snack meal'. The prices quoted in this table relate to the price of one piece of each snack.

Table 5: Non-meat Snack Sales in Douala (Per Week)

Non-meat Snacks Sold in One Week (All retailers)	Number of Outlets	Percentage of Total	Total Value (FCFA)	Average Price Per Snack (FCFA)
Omelette	7	23	91,200	220
Roasted Fish	4	13	76,500	575
Groundnuts	3	10	7,400	50
TOTAL			175,100	Av.= 282

77. Examination of retail sales of non-meat snacks reveals that the most widely available non-meat snacks can not compete on price with the most widely available meat snacks. The turnover of non-meat snacks is also considerably less than those of less widely available snacks, such as 'meat balls' and 'kebabs'. This occurs despite the average price of the meat snacks being higher. Considered together, the data indicate a clear preference for meat snacks in Douala. Indeed the average value of non-meat snack turnover to meat snack turnover was only 13% for the establishments in the survey.

78. The data generated by the survey can be used to estimate the weekly turnover of meat and non-meat snacks in New Bell and Akwa. Given that 41% of establishments were surveyed, we can estimate that 41% of the total snack sales in a week are equivalent to FCFA 1.529 million (£1,867). This means the estimated total sales per week is FCFA 3.729 million (£4,553). This is equivalent to an annual turnover of FCFA 193.9 million (£236,756).

79. As only the main commercial districts were sampled in Douala, it would be erroneous to use the results from the survey as a basis to estimate the total snack turnover in Douala. However of the remaining six districts in the city, many have a significant number of bars, roadside stalls, restaurants and hotels. Given this observation it is likely that the total turnover of snacks for all areas of the city combined is significantly above that recorded for Akwa and New Bell.

Results for Yaounde

80. A detailed breakdown of responses to the questionnaire is provided in Appendix 7. The retail survey revealed that none of the retailers had sold kilishi before. However, following inspection of samples and tasting the product, 83% of retailers said they were impressed with the product. Although 17% of retailers did not like the taste of kilishi, all retailers said that they were interested in selling kilishi in the future.

81. As in Douala potential retailers were asked their preference for mode of purchase from suppliers. Purchasers were given the following options and encouraged to choose more than one option if they wished:

purchase outright for cash

commission basis

- credit from supplier

82. In total, 40% of retailers expressed a preference for purchasing outright for cash from suppliers. Thirty per cent of retailers elected for commission based sales. However, in Yaounde, the most popular form of supply arrangement was credit terms from suppliers, nearly 57% of potential retailers choose this option.

83. The survey revealed that if retailers were to sell kilishi, the average expected mark-up would be 71% on the wholesale price. This average conceals some diversity, with proprietors of two-star hotels expecting to institute a 122% mark-up whilst proprietors of unclassified hotels expecting to add 50% to the wholesale price.

84. The range of meat snacks currently sold by retailers in Yaounde is shown below in Table 6.

Table 6: Meat Snack Sales in Yaounde (Per Week)

Meat Snacks Sold in One Week (All retailers)	Number of Outlets	Percentage of Total	Total Value (FCFA)	Average Price Per Meat snack (FCFA)
Suya (beef)	16	53	521,500	416
	8	26	455,625	933
	8	26	325,000	144
	6	20	242,000	
Meat Balls	5	16	151,000	
Pepper Soup	4	13	87,100	[illegible]
Pork				
Porcupine		[illegible]		
Boiled Skin of Cow	1	3		
TOTAL (FCFA)			1,850,725	Av. = 344

85. Table 6 illustrates that the most widely available snack in the outlets surveyed was 'suya', with fifty three per cent of outlets stocking this meat snack. This was followed by sausage and intestines which were both stocked by 26% of outlets.

86. Table 6 shows the average prices for each type of snack across all establishments surveyed. This table indicates that the average price of snacks in Yaounde is FCFA 344 (£0.34). In Douala the average price for meat snacks was FCFA 586 (£0.71). The interesting fact to emerge is that although meat snacks are on average cheaper in Yaounde than Douala, 'suya', the most popular snack in terms of turnover, is cheaper in Douala than Yaounde. 'Suya' sells at an average of FCFA 416 (£0.51) in Yaounde, whilst it's cost in Douala is FCFA 118 (£0.14).

87. Whereas the retail survey in Douala showed a clear correlation between availability of meat snacks and price, the results from Yaounde are less clear. In Yaounde, the two most widely available snacks, 'suya' and sausage, are also the most expensive in the survey.

88. Retail sales of non-meat snacks in Yaounde is shown in Table 7. This table shows that omelette was available in 46% of establishments surveyed. This makes omelette the second most widely available snack in Yaounde. Coupled with the observation that 30% of establishments also stock roast fish, Table 7 indicates that the turnover of non-meat snacks at FCFA 623,000 (£760.00) in Yaounde is significantly higher than in Douala. Indeed, non-meat snack turnover is equivalent to 33% of meat snack sales. In Douala, non-meat snack turnover was only 13% of meat snack turnover. This implies that non-meat snacks are more popular in Yaounde than in Douala.

Table 7: Non-meat Snack Sales in Yaounde (Per Week)

Non-meat Snacks Sold in One Week (All retailers)	Number of Outlets	Percentage of Total	Total Value (FCFA)	Average Price Per Snack (FCFA)
Omelette	14	46	240,700	181
Roasted Fish	9	30	240,250	692
Vegetables	6	20	81,250	138
Groundnuts	5	16	61,600	60
TOTAL			623,800	Av. = 267

89. As with meat snacks, the average price of non-meat snacks is less in Yaounde than in Douala. Although prices for both types of snack are lower in Yaounde, total turnover of the establishments surveyed is higher in Yaounde than in Douala. The weekly turnover for establishments in the survey from Yaounde is FCFA 2.47 million (£ 3,015).

90. Published data or government records on the total number of retail establishments are not available for the areas of survey in Yaounde. It is estimated that the

total number of all types of establishments in the three districts is approximately 90, with over 50% being bars. Given that 33% of establishments were surveyed, it is estimated that the total turnover of snacks per week in the three districts surveyed is equivalent to FCFA 385.32 million (£410,476) per annum.

91. Data on the total number of retail establishments selling meat snacks in all central districts of Yaounde is not available. The category of retail establishment which presents most difficulty is bars. One official of the Ministry of Tourism estimated that the number of bars was over 500[14]. In an interview with government officials in the municipal council, it was stated that it was 'impossible' to estimate the number of bars in the city centre[15]. Similar problems exist for estimating numbers of roadside stalls.

92. The lack of data on numbers of establishments cautions against making an informed estimate on snack consumption for the whole of Yaounde. However, the existence of significant numbers of meat snack-selling establishments outside the survey area suggests that the total turnover for Yaounde is considerably above the total derived from the survey in the sampled areas.

Conclusions

93. None of the retail outlets surveyed presently sold kilishi. However 58 out of a total of 60 retailers expressed an interest in selling kilishi[16]. This universal interest spanned all categories of retail outlet. The most widely available snack is beef suya. This snack has the highest turnover of any individual snack in both cities.

94. The snack market is estimated as being worth FCFA 579.22 million in the areas surveyed. Total snack consumption across both cities will be worth considerably more.

Kilishi Consumer Survey

95. Thirty two potential consumers were surveyed in Yaounde. The number surveyed in Douala was 29. This number was predetermined by the availability of packaged kilishi samples which were necessary for eliciting informed responses from potential consumers to the

[14] Personal communication 13.12.94.
[15] Personal communication 13.12.94.
[16] It should be noted that the level of interest generated by the survey might exaggerate the actual willingness of retailers to stock the product.

product during an interview. Existing meat snack consumers were selected on the assumption that they would be a key target group for the establishment of kilishi in Yaounde and Douala. Respondents were selected through `random encounter' in each of the establishments included in the retail survey (see above).

Results for Douala

96. A detailed breakdown of responses to the questionnaire is provided in Appendix 8. The consumer survey in Douala revealed that on average, consumers purchase meat snacks seven times per week. Average expenditure per purchase is FCFA 200. This means that on average total expenditure on meat snacks per week is FCFA 1,400. The average income per week of respondents in the survey was FCFA 18,333[17]. This implies that on average individuals spend seven per cent of their income on meat snacks per week. The average age of those surveyed was 36 years.

97. When asked, 62% of meat snack consumers revealed that they had eaten kilishi prior to the survey. Respondents in the survey purchase a variety of meat snacks. The details of such purchases are shown in Table 8. This table illustrates that over 82% of respondents purchase beef 'suya'. The next most popular snack is kebab, which is purchased by 21% of those surveyed.

Table 8: Meat Snacks Usually Consumed by Respondents in Douala

Favourite Meat Snacks	Percentage	Number
Suya (beef)	83	24
Kebab	21	6
Suya (sheep)	14	4
Intestines	14	4
Suya (goat)	10	3
Kilishi	10	3
Roast Chicken	7	2
Meat Balls	7	2
Pepper Soup	4	1

98. Although 62% of consumers had eaten kilishi before (see above), Table 8 indicates that only ten per cent of consumers ranked kilishi as a meat snack they usually consumed.

99. When consumers were asked about their low consumption pattern of kilishi, they gave two reasons.

[17] Individuals were very reluctant to give information on income. Due to suspicion that income data would be used by tax authorities, it is likely that incomes are under-reported.

The first reason was that kilishi was generally not available across the city. To purchase kilishi, consumers had to travel to the local production area located next to New Bell Market. The second reason was that production conditions in Douala were not considered to be sufficiently hygienic to ensure food safety (see above). Many consumers had seen kilishi produced in Douala and were concerned about the proximity of open sewers and flies next to production sites.

100. Kilishi produced in N'gaoundere was used as samples in the consumer survey. The kilishi had been subjected to a bacterial analysis by the NRI meat technologist and confirmed as fit for human consumption. The kilishi samples had been packaged in plastic bags and sealed with sticking tape. All consumers commented that sealing the kilishi had allayed their fears for food safety. That fears were allayed was confirmed by all respondents accepting to taste kilishi samples as part of the survey[18].

101. The response to the samples was overwhelmingly positive. Ninety three per cent of all respondents though that the smell of kilishi was good, 86% of consumers said that the taste of kilishi was good, with 27% stating that the taste was very good. Eighty five per cent of respondents stated that the appearance of the product was good. When asked about their overall opinion on the product, 90 percent of all respondents said that they liked the sample of kilishi[19].

102. Respondents were asked to identify what price they would be willing to pay for the sample they had tried. The average price was FCFA 70. When asked the maximum price they would pay for the sample of kilishi, the average was FCFA 105. Interestingly, 55% of respondents stated that if kilishi was sold at the same price as the normal snack they consumed, they would consider purchasing kilishi.

103. After the kilishi sample had been consumed, respondents were asked at which type of establishments they considered kilishi should be sold. The response to this question is detailed in Table 9. This table indicates a clear preference for kilishi to be sold in supermarkets/shops and bars.

[18] At present no meat snacks are presently sealed in plastic bags. This reflects the nature of meat snacks which are served as fresh meat.
[19] The fact that the kilishi was sealed will have undoubtedly influenced the overall impression of kilishi.

Table 9: Consumer's Preference for Point of Sale in Douala

Point of Sale	**Percentage**
Supermarkets / Shops	76
Bars	76
Hotel Bars	66
On the Street	38

104. Consumers stated that if kilishi was sold from the street they would be concerned about the safety of the product, that it would be associated with low quality, and it would not be popular. Whilst respondents recognised that packaged kilishi would be protected against dust and flies, many stressed their reluctance to buy a product which might have been carried around the streets for a number of days.

Results for Yaounde

105. A detailed breakdown of responses to the questionnaire is provided in Appendix 9. The survey in Yaounde revealed that on average individuals purchase meat snacks five times per week. Average expenditure per purchase is FCFA 300, with average weekly expenditure equal to FCFA 1,500. The average income per week of respondents was FCFA 26,260[20]. This means that on average the respondents in the survey spent 5.8 per cent of their income on snacks. The average age of those surveyed was 31 years.

106. In Yaounde, 72% of those surveyed had eaten kilishi prior to the survey. The range of snacks consumed by respondents is shown in Table 10. This table indicates that beef 'suya' is consumed by 90% of those surveyed in Yaounde. The next most popular snack is kebab, which was consumed by 48% of respondents.

Table 10: Meat Snacks Usually Consumed By Respondents in Yaounde

Favourite Meat Snacks	Percentage	Number
Suya (beef)	90	26
Kebab	48	14
Intestines	21	6
Kilishi	7	2
Roast Chicken	7	2
Meat Balls	7	2

107. Although 72% of respondents had eaten kilishi in the past, only seven per cent cited kilishi as a meat snack

[20] Individuals were very reluctant to give information on income. Due to suspicion that income data would be used by tax authorities, it is likely that incomes are under-reported.

that they usually consumed. Consumers accounted for the low level of consumption of kilishi on its unavailability in Yaounde. Many consumers stated that their previous experience of kilishi had been when they had been travelling or had received it as a gift from family and friends who had travelled.

108. The response to the samples of kilishi from N'gaoundere was positive. Ninety per cent of all respondents surveyed said that the taste of kilishi was good. Eighty seven per cent of all respondents said that they thought the appearance of kilishi was good and 84% said that they thought the smell was good. When asked about their overall opinion on the product, 84% of those surveyed liked the sample.

109. The survey revealed that on average, respondents would expect to pay FCFA 61 for a portion of kilishi similar to the sample they had tried. The maximum price which they would pay was 78 FCFA. Fifty per cent of all respondents said that they would consider purchasing kilishi if it was the same price as their normal snack.

110. Table 11 contains respondent's preferences for the point of sale for kilishi.

Table 11: Respondent's Preference for Point of Sale in Yaounde

Respondent's Preference for Point of Sale	Percentage
Supermarkets/ Food Shops	84
Hotel Bars	84
Bars	78
On the Street	56

111. There is a strong preference for the sale of kilishi in supermarkets/shops and bars. For both types of establishment, 84% of respondents stated that they would like to see kilishi sold in these types of outlets. Fifty six per cent of respondents said that they would like to purchase from street sellers. As in Douala, there is a greater preference for sales to be made from formal outlets.

Conclusions

112. The average expenditure on meat snacks per week is FCFA 1,400 in Douala. In Yaounde the average is FCFA 1,500. This is equivalent to 7% and 5.8% of total weekly income in Douala and Yaounde respectively.

113. The most popular snack in both cities is beef suya. This is followed by kebab. Prior to the survey, consumers

did not have a high preference for kilishi. However, after tasting a sample of kilishi, 90% of those surveyed in Douala said that they liked Kilishi. In Yaounde the figure recorded was 84%. In Douala the most popular attributes of the product was its smell and taste. In Yaounde, the taste and the appearance of the product pleased customers most.

The Market Potential of Kilishi in the South of Cameroon

114. The survey revealed a positive reaction to kilishi samples by potential consumers and retailers in Douala and Yaounde. In both cities potential consumers indicated that they would consider purchasing kilishi if it was competitively priced against other snacks. Only three per cent of all retailers in the survey (i.e. 2 out of 60 retailers) said they would not be interested in stocking kilishi, 97% they would like to start selling the product.

115. Present levels of production of kilishi in Garoua and N'gaoundere produce a total turnover of FCFA 127.06 million (£155,150). As this turnover is generated by direct sales to consumers by producers it includes profit accruing to production and retail activity. In this study we have divided profit equally between each activity.

116. Using data from the production survey, it is estimated that the producer price of the samples given to consumers in Yaounde and Douala is approximately FCFA 20 per sample[21].

117. After sampling kilishi, consumers were asked what price they would be willing to pay for a similar size piece of kilishi. In Douala, the average price was FCFA 70. The average maximum price which consumers would pay was FCFA 105. In Yaounde the figures recorded were FCFA 61 (£0.07) and FCFA 78.

118. Using data on price sensitivity of consumers and expected mark-up from retailers we can use the survey results to estimate prices throughout the marketing chain for one unit of kilishi in Yaounde and Douala. These are illustrated in the Table 12 and 13 below.

[21] This figure was obtained using the assumption that the costs and revenue generated by kilishi producers in N'gaoundere can be equally divided between production and retail activities. Accordingly the wholesale cost of a FCFA 1000 sheet of kilishi is FCFA 500. This implies that the wholesale cost of the sample given to consumers in Yaounde and Douala would be FCFA 500 divided by 25 samples which equals FCFA 20.

119. Table 12 and Table 13 illustrate the hypothetical margins for a trader and/or a producer organisation to market kilishi in Douala and Yaounde. The margin must cover the costs involved in the packaging, transport, storage and sale of kilishi to retailers for a prospective trader or producer organisation to make a profit.

120. Due to portability and low weight, kilishi can be readily transported by rail or road. N'gaoundere is linked to the two potential markets by rail and road. Garoua is linked to N'gaoundere by road and to Yaounde and Douala by road and rail thereafter.

Table 12: Market Margins - N'gaoundere to Yaounde

Link in Marketing Chain	Min Price Scenario (FCFA)	Max Price Scenario (FCFA)	Mid Price Scenario (FCFA)
Producer Price	20	20	20
Percentage of Final Retail Price	33%	26%	29%
Wholesale Margin	16	26	21
-as a Percentage of Producer Price	80%	130%	100%
-as a Percentage of Final Retail Price	26%	33%	29%
Wholesale Price	36	46	41
Mark-up	71%	71%	71%
Retail Margin as a Percentage of Final Retail Price	41%	41%	41%
Final Consumer Price	61	78	70

Table 13: Market Margins - N'gaoundere to Douala

Link in Marketing Chain	Min Price Scenario (FCFA)	Max Price Scenario (FCFA)	Mid Price Scenario (FCFA)
Producer Price Percentage of Final Retail Price	20 29%	20 19%	20 29%
Wholesale Margin -as a Percentage of Producer Price -as a Percentage of Final Retail Price	27 135% 38%	50 250% 48%	38 190% 43%
Wholesale Price Mark Up Retail Margin as a Percentage of Final Retail Price	47 49% 33%	70 49% 33%	58 49% 33%
Final Consumer Price	70	105	87

121. The estimated transport costs between N'gaoundere and Yaounde per portion of kilishi is FCFA 4.20. The estimated cost to Douala is FCFA 5.70[22]. These figures correspond to 20% of the wholesale margin to Yaounde and 15% of the wholesale margin for the mid-price scenario detailed in Table 12 and Table 13[23].

122. The estimated proportion of the wholesale margin allocated to transport indicates that for consignments of 15 kilos or over, a substantial proportion of the wholesale margin remains following transportation. This indicates a significant potential for traders and/or

[22] These figures were derived from the cost of rail travel to both cities with 15 kilograms of kilishi. The estimated rail-freight cost for 15 kilograms of kilishi (including passage for the trader) from N'gaoundere to Yaounde is FCFA 600 per kilo. As the product is dried it is assumed that there would be minimal losses during transportation. There are approximately 140 * FCFA 20 7g portions of kilishi per kilogram. This means that the cost per portion of kilishi is FCFA 4.20. The estimated rail-freight cost from N'gaoundere to Douala is FCFA 800 per kilogram, resulting in an estimated cost per portion of FCFA 5.70.

[23] It should be stressed that the transport of dried meat neither requires a licence nor is subject to inter-province taxation. However, it is widely accepted that significant informal taxation is levied on such activities. By its nature it is problematic to estimate the levels of such costs.

producer groups to engage in arbitrage for kilishi. The existence of a potentially profitable wholesale market may be of interest to traders and producers.

Potential Market Share

123. Our estimate of the annual total retail turnover of snacks in the two areas surveyed is approximately FCFA 579.22 (£707,228). In both cities, beef suya is the most popular snack with the largest turnover at FCFA 155.02 million (£189,280) per annum and an annual share of the market equivalent to 27%.

124. The popularity of suya can be gauged by the retail and consumer surveys in Yaounde. These highlighted that suya's popularity occurred despite it being the second most expensive snack surveyed from a sample of nine meat snacks,. This observation implies a strong preference for suya.

125. Despite the popularity of suya, 50% of potential consumers interviewed in both consumer surveys indicated that they would consider purchasing kilishi if it was competitively priced.

126. For a new product in a new market, the initial prospects of such widespread substitution of familiar meat snacks with kilishi is unlikely. Instead it is assumed that five per cent of consumers would purchase kilishi. If this assumption were realised the following impacts on the income of kilishi producers are forecast.

127. In Yaounde the total retail turnover of snacks per year is estimated at FCFA 385.32 million (£470,476) for the areas surveyed. Five per cent of total retail snack market in Yaounde is equal to FCFA 19.26 million per annum. The mid price scenario outlined in Table 12 indicates that 41% of this turnover would accrue to retailers, with 29% to wholesalers. Producers in N'gaoundere would receive 29%. This is equivalent to FCFA 5.58 million (£6,820) or an increase in revenue of 27% on present revenues (see above). To generate this revenue, producers would have to expand production by just under 2,000 kgs per year or 38 kg per week[24]. This figure is equivalent to 20% of the kilishi presently produced in N'gaoundere.

[24] This figure is obtained as follows. FCFA 5.58 million is equivalent to 279,250 pieces of FCFA 20 kilishi. The weight of this kilishi is equivalent to 279,2500 * 7gs, which is 1,954 kgs. The weekly weight is thus equal to 38 kgs. At present it is estimated that 187 kg of Kilishi is produced in N'gaoundere per week, meaning the expanded production is equivalent to 20 per cent of present production.

128. In Douala the total retail turnover of snacks per year is estimated at FCFA 193.9 million (£236,756) for the areas surveyed. Five per cent of total retail snack market in Douala is equal to FCFA 9.69 million (£11,830) per annum. The mid price scenario outlined in Table 13 indicates that 33% of this turnover would accrue to retailers, with 43% to wholesalers. Producers in N'gaoundere would receive 23%. This is equivalent to FCFA 2.22 million (£2,721) or an increase in revenue of 11% on present revenues (see above). To generate this revenue, producers would have to expand production by just over 777 kgs per year or 15 kg per week[25]. This figure is equivalent to eight per cent of the kilishi presently produced in N'gaoundere.

129. These figures illustrate that to capture a five per cent share of the snack market in Douala and Yaounde, producers in N'gaoundere would have to expand production by 28%. However, the resulting increase in output would increase revenues by 38%[26].

130. It should be stressed that although the price at which kilishi should be sold to traders will be below that received for retail sales in N'gaoundere, the producer has no costs of retail sales, costs relating to transportation, sale to retailers in target markets, and risk in the new market.

Recommendations for Realising Market Potential

131. This study has outlined the results from market studies which indicate that the potential for kilishi is positive. However the realisation of this potential requires further work. Kilishi producers have no knowledge of the potential market in Douala and Yaounde. At present kilishi producers produce and sell their product individually and have no business relations with traders or retailers. Kilishi producers keep no formal records and can not estimate any formal accounting measures such as cash-flow and profit and loss positions. Kilishi producers do not belong to any trading association and do not engage in any co-operation with each other. Finally it was observed that kilishi

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[25] This figure is obtained as follows. FCFA 2.22 million is equivalent to 111,000 pieces of FCFA 20 kilishi. The weight of this kilishi is equivalent to 111,000 * 7gs, which is 777 kgs. The weekly weight is thus equal to 15 kgs. At present it is estimated that 187 kg of kilishi is produced in N'gaoundere per week, meaning the expanded production is equivalent to 8 per cent of present production.

[26] These figures are generated on the assumption that the increased output of kilishi is sold entirely in the Douala and Yaounde markets

producers are not licensed and produce a non-standard product.

132. Although all producers expressed an interest in forming links with traders to exploit new markets, the terms of these relations will undoubtedly be complex and fragile. At the heart of such concerns is the reaction of producers to conditions laid down by traders and retailers for kilishi. These conditions will include the need for: a standardised product; regular supplies; sealed packaging; and initially the need for a producer-financed promotion campaign. Of equal importance will be the requirement of producers to sell kilishi at prices considerably below those they receive at present from their sales in local markets. Finally, the reaction and response of producers to the potential outlined in this report is paramount. Now producers are aware of the market do they really want to exploit it? Are producers prepared to invest in this increased level of production?

133. In response to these concerns it is proposed that NRI, in collaboration with IRZV, conduct a participatory workshop on Kilishi in Cameroon. The objectives of the workshop are to: (a) inform producers of the results of the market surveys conducted on kilishi;(b) elicit a response from producers to market information and develop a strategy based on such responses for the promotion of kilishi; (c) provide a forum where producers can meet retailers from Yaounde and traders from N'gaoundere to discuss the requirements for successful trading relations.

134. It is recommended that a workshop should be conducted in N'gaoundere. Eight producers from N'gaoundere and 11 from Garoua will be invited so that the 19 major producers in the country will gather to hear the results of the market surveys. Workshop sessions will be conducted in production and storage techniques of kilishi; business planning, marketing skills and accounting methods; trading relationships with wholesalers and retailers; and different forms of producer co-operation. During the workshop it is proposed to introduce potential traders and buyers of kilishi. Five retailers identified from this study will be invited from Yaounde. Five traders engaged in trade between N'gaoundere and Douala and N'gaoundere and Yaounde will also be invited from N'gaoundere. Joint sessions will be held with producers which will include meat snack consumption in Cameroon, the product requirements of retailers, branding and packaging techniques and product promotion. Non-sessional activities will enable producers and potential buyers to discuss trading relationships and

breakdown of the structure is contained in Appendix 10. ODA desk funding will be sought for NRI and IRZV to manage the workshop.

III SMOKED MEAT

Background to Smoked Meat Production

135. For the purpose of this study, smoked meat refers to any type of meat which has been dried through the process of smoking. The smoking of meat is conducted to extend its shelf life and to allow transportation to urban areas. The practice is widespread in Cameroon because access to refrigeration is very limited[27]. Estimates of the impact of smoking on longevity are shown in Table 14.

Table 14: Shelf-Life on Non-smoked and Smoked Meat

Location / Season	Non-Smoked (Number of Days)	Smoked Meat (Number of Days)
YAOUNDE		
Dry Season	Max 3	21
Wet Season	Max 5	14-21
DOUALA		
Dry Season	Max 2	14
Wet Season	Max 2	14

Source: Personal communication with staff at IRZV.

136. Smoked meat forms an ingredient of a main meal. Smoked meat requires re-hydration prior to eating and is often used in dishes such as 'pepper soup' or prepared in a sauce. At present, the most popular types of smoked meat are those derived from wild animals. This type of smoked meat is commonly referred to as 'smoked bush-meat' and includes any type of animal found in the wild.

137. Regulations in Cameroon currently forbid commercial trade in smoked bush meat (Silverside 1994). However, despite the illegality, trade is widespread and involves a number of animals which are considered as endangered such as gorilla and panther (Republic of Cameroon 1993).

Objectives and Methodology of Study

138. The aim of this study is to establish the potential for smoked beef meat to partially replace smoked bush meat in the south of Cameroon. The objective of such a substitution is to curtail a trade which is widely condemned by government authorities and international organisations (Silverside 1994).

[27] It is not just consumers who lack access to refrigeration. Meat traders also have this problem. Smoking is presently the only alternative to transporting beef meat 'on the hoof'. Where bush/game meat is concerned, transportation 'on the hoof' is not applicable. This leaves smoking as the only means of improving the shelf-life of meat.

139. The principal methodology for the study was the use of structured interviews with producers, retailers and consumers of smoked meat. Smoked meat producers were surveyed between N'gaoundere and Garoua at a village called Gaouna. Retailers and consumers were surveyed in Douala and Yaounde. Three enumerators from IRZV conducted the surveys.

Production Survey

140. The purpose of the production survey was to provide insights into the present activities of smoked meat producers. Smoked meat producers are invariably located in rural areas and sell their produce either by the side of roads linking urban areas or in the nearest town. Their customers are usually a mix of traders and individual consumers.

141. In view of the difficulties involved in interviewing producers whilst they are located on the side of a road, the producer survey questionnaire was designed to be short and obtain key information only. The questionnaire sought information on the: level of production of individual producers; relationships with other producers; and profitability of present levels of production.

142. The survey was conducted in French and local languages. Producer's responses were compiled by the IRZV enumerator as the interview progressed. The questionnaire is reproduced in Appendix 11. Producers were located with the aid of information gathered by the IRZV enumerator on route to Garoua to perform the kilishi producer survey (see Section II).

Retail Survey

143. The purpose of the retail survey was to: establish the interest of smoked bush meat retailers in Yaounde and Douala in stocking and selling smoked beef meat; and to determine the present pattern of consumption of smoked meat.

144. The proprietor of each retail outlet was interviewed by an enumerator who followed a structured questionnaire. The interviews were conducted in French and local languages. The questionnaire was completed by the enumerator as the interview progressed. The questionnaire is reproduced in Appendix 12.

145. The survey was conducted in the main areas of the city where smoked meat is sold. In Douala 17 retailers were surveyed between the 7.12.94 and 8.12.94. In Yaounde 27 retailers were surveyed between 14.12.94 and 15.12.94.

Consumer Survey

146. The objective of the consumer survey was to establish the potential interest of smoked meat consumers in Yaounde and Douala in consuming smoked beef meat. The instrument of investigation was a structured questionnaire which sought to establish: why consumers buy smoked bush meat; present consumption patterns of smoked bush meat; and the potential impact of competitively priced smoked beef meat on current consumption patterns.

147. The questionnaire was conducted in French and local languages and was completed by the enumerator as the interview progressed. The questionnaire is reproduced in Appendix 13.

148. In Douala, 30 consumers were surveyed between the 8.12.94 and 9.12.94. In Yaounde 30 consumers were surveyed between the 14.12.94. and 15.12.94.

Smoked Meat Production

149. The six main smoked meat producers from Gaouna agreed to participate in the study. Four businesses are owned and operated by family members. Two businesses were owned and operated by partners. All businesses were run by males whose average age was 38 years. On average each business had operated for just over ten years. Four producers obtained raw meat from their own livestock and by hunting wild animals. Three producers purchased meat from butchers, with one producer indicating that he purchased meat from hunters. All producers sold a mixture of smoked bush meat and smoked beef meat. Producers indicated that the majority of their income was generated from smoked bush meat.

150. Two producers reported that business had increased last year, with the remaining producers reporting that business activity was the same a the previous year. No producer reported that business had declined.

151. Smoked meat is either sold as whole animals or in bundles. The price of individual animals varies greatly depending upon their size. The price of different types of animals also varies (see Table 15 below). Meat is also sold in bundles, which have a variable weight depending on the type of smoked bush meat being sold. Each producer sells bundles at FCFA 1,000, FCFA 800, and FCFA 500. All producers produce all year round and did not indicate any seasonality in production volumes.

152. To obtain insights into the profitability of smoked meat production, basic cash flow and profit data was constructed from the responses obtained from producers. Due to commercial sensitivity, data on individual producers is not reported.

153. Five producers were shown to derive a positive income stream from smoked meat production. One producer was shown to have a negative income stream[28].

154. After annualising capital costs, responses to the survey indicated that on average, smoked meat producers derive a net income of 37% on their production and retail costs[29]. All producers reported that they would be interested in selling smoked beef meat provided there was a market for the product. All producers said that they would be willing to form links with traders to exploit this market.

155. When asked about the activities of other smoked meat producers in Gaouna, five out of six producers were able to estimate the number of producers accurately, although none could offer estimates on the total turnover of smoked meat in their local area.

<u>Conclusions</u>

156. The survey in Gaouna, revealed that producers are willing to expand production of smoked meat, but that their interest in smoked beef meat will only be stimulated if traders and/or consumers will purchase the product.

Smoked Meat Retail Survey

157. In Yaounde and Douala, smoked meat is sold within close proximity to the railway station and adjacent to the main food markets. Smoked meat is sold from tables and semi-permanent stalls along the roadside. The retail survey for Yaounde included retailers from Mfoundi Market, Mokolo Market and Isingar Market. In Douala, the survey was conducted in Deido and New Bell Market.

[28] This latter result can be attributed to genuine loss making or to difficulties of recall and accuracy in the reporting of financial information. With little capital, it is assumed that losses in production could not be maintained over the long term.

[29] This income includes returns to labour (wages) and net profit for the business. It was not possible to derive estimates of the return to labour and capital separately.

Results for Douala

158. No producers included in the survey sold smoked beef meat. Thirty per cent of retailers had sold smoked beef meat in the past but claimed that there was currently no demand for the product. The types of smoked bush meat sold by producers, and their average price is shown in Table 15.

Table 15: Varieties of Smoked Meat Sold in Douala

Type of Smoked Meat	Number of Outlets Sold n = 17	Percentage of Total Outlets	How Sold	Average Price (FCFA)	Portions Per Animal*	Average Price Per Portion
Monkey	13	76	Whole	4346	18	241
[illegible]	10	59	Whole	3550	10	355
Grass Cutter / Cane rat	3	18	Whole	2667	5	533
Not Specified	3	18	n.d.	n.d.	n.d.	n.d.
Antelope	2	12	Whole	5000	25	200
[illegible]	2	12	Whole	3500	25	140
[illegible]	1	6	Pieces	500	n.a.	500
[illegible]	1	6	Whole	400	1	400

n.d. = no data available;
n.a. = not applicable
*= obtained from smoked meat consumer surveys

159. Table 15 indicates that the most widely available types of smoked meat sold in Douala are monkey and porcupine. The former was sold in 76% of outlets surveyed. The latter was sold in 59%. The survey revealed that with the exception of elephant skin, smoked meat is sold whole by the majority of vendors.

160. Using data obtained from the smoked meat consumer survey, estimates of price per portion were calculated and are also shown in Table 15. These figures reveal that the number of portions obtained from each type of animal is variable. The data also indicate that although monkey is the second most expensive animal to buy whole, it is the third cheapest type of bush meat per portion.

161. Estimates of turnover were calculated from retailers responses to questions concerning the volume of their trade and the prices they charge. This data produced an estimated average turnover of FCFA 25,259 per retailer per week. Many retailers indicated that during the wet season (May to mid November), sales are on average 40% higher. As a result it is possible to estimate that the turnover of an average smoked meat retailer is FCFA 368,750 (£450) per annum.

162. Sixty five per cent of retailers surveyed offered information on the mark-up that they made on the wholesale price of smoked bush meat. The average for these retailers was 72% of the wholesale price of smoked

meat[30]. Unfortunately, it was not possible to obtain information on costs and profit for retailers. The major reason for this was the suspicion of retailers that the enumerators were agents of the tax authorities.[31]

163. There are no government records on the numbers of smoked bush meat retailers in Douala. When asked, retailers in the survey were unable to estimate figures above those actually surveyed. Due to these data constraints an estimate of the total turnover for the smoked meat market is not attempted.

164. In Douala, 41% of retailers indicated that they would be interested in selling smoked beef meat. However, the majority of retailers, 59% of the sample, said they had no desire to sell smoked beef meat. Over 50% of those not interested included the retailers who had attempted to sell smoked beef meat in the past with no success.

Results for Yaounde

165. Twenty seven retailers of smoked meat were surveyed in Yaounde. Nineteen per cent of retailers sold smoked beef meat. The other types of smoked bush meat sold by producers, and their average price is shown in Table 16.

Table 16: Varieties of Smoked Meat Sold in Yaounde

Type of Smoked Meat	Number of Outlets Sold n = 27	Percentage of Total Outlets	How Sold	Average Price (FCFA)	Portions Per Animal*	Average Price Per Portion
Monkey	23	85	Whole	2927	18	162
Antelope	19	70	Whole	2242	25	90
Warthog	14	52	Whole	3000	25	120
Elephant Skin	7	26	Pieces	1025	3**	342
Porcupine	6	22	Whole	3060	10	306
Not Specified	6	22	n.d.	n.d.	n.d.	n.d.
Beef	5	19	Pieces	380	n.d.	190
[illegible]	4	15	Pieces	913	n.d.	n.d.
[illegible]	3	11	Pieces	1500	n.d.	n.d.
Grass Cutter/Cane Rat	2	7	Whole	n.d.	5	n.d.
Snake	1	-	Pieces	500	n.d.	n.d.

n.d. = no data available; n.a. = not applicable
*= obtained from smoked meat consumer surveys
**= the quantity of elephant skin pieces sold in the survey were three times as large as in Douala.

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30 Retailers explained the magnitude of this mark-up by reference to the risk involved of purchasing smoked bush meat. As well as the illegality of commercial trade, the major risk faced by retailers relates to the uncertainty of the date of the slaughter and smoking of the animal. The risk faced by the retailer is that he/she can not estimate the number of days the smoked meat will last before advanced putrefaction sets in and sale becomes impossible.

31 The enumerators reported a great deal of suspicion during these interviews. Retailers of smoked bush meat are aware that their trade is illegal and not favoured by the government. Traders also exist outside the net of the tax authorities and as such are distrustful of requests for information.

166. Table 16 indicates that the most widely available types of smoked meat sold in Yaounde are monkey and antelope. The former was sold in 85% of outlets surveyed. The latter was sold in 70%. In Douala, the majority of smoked meat is sold as a whole animal. In Yaounde fifty percent of smoked meat is sold as pieces[32]

167. Using data from the smoked meat consumer survey, estimates of price per portion were calculated and are also shown in Table 16. The estimates reveal that the three most widely available types of smoked meat are also the three cheapest types of bush meat per adult portion.

168. The survey revealed that the average weekly turnover per retailer was FCFA 60,600 (£74.00). This is estimated to increase by approximately 40% in the rainy seasons which last for 4.5 months of the year[33]. As a result, average annual turnover per retailer is estimated at FCFA 833,365 (£1,017).

169. Only 41% of retailers surveyed offered information on the mark-up that they made on the wholesale price of smoked meat. The average for these retailers was 77% of the wholesale price of smoked meat. As in Douala, retailers explained the magnitude of this mark-up by reference to the risk involved in the smoked meat trade (see above).

170. No data exist on the number of smoked bush meat retailers in Yaounde. This lack of data makes an estimate of annual turnover for smoked meat extremely difficult and as such is not attempted in this study.

171. In Yaounde, 86% of those retailers not selling smoked beef meat indicated that they would be willing to sell smoked beef if consumers demanded the product.

Conclusions

172. Smoked beef meat was sold by 11% of the 44 retailers surveyed in both cities. If this is to be increased smoked beef meat will be required to compete with a range of established smoked bush meat varieties. The most widespread type of smoked bush meat available in both cities is monkey. Monkey was found at 82% of all retailers included in this survey. Monkey retails at FCFA

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32 Producers sell smoked meat in bundles which are tied with string. Retailers sell pieces of smoked meat in small piles. Consumers and retailers often spend considerable time discussing the attractiveness of one pile compared to another.

33 The rainy seasons are from May to June and September to mid November.

241 (£0.29) per portion in Douala and FCFA 162 (£0.20) in Yaounde. The lower price in the Yaounde is a reflection of the lower prices observed generally for smoked meat in Yaounde compared to Douala.

Smoked Meat Consumer Survey

173. Thirty smoked meat consumers were surveyed in Douala. The same number were surveyed in Yaounde. Existing smoked meat consumers were selected on the assumption that they would be a key target group for a smoked beef meat campaign. Respondents were selected through 'random encounter' at smoked meat retail stalls along the roadside.

Results for Douala

174. A detailed breakdown of responses to the questionnaire is provided in Appendix 14. The consumer survey in Douala revealed that on average, consumers spend FCFA 3,031 (£3.70) on smoked meat per week. The average income of respondents was FCFA 18,184 (£22.20) per week. Whilst these figures suggest that consumers spend 17% of their income on smoked meat, such a conclusion is implausible and likely to reflect under-reporting of income. The range of smoked meat consumed in Douala is shown in Table 17.

Table 17: Consumer's Preference for Smoked Meat in Douala[34]

Most Popular Types of Smoked Meat (sample size = 30)	Number	Percentage
Porcupine	14	47
Any Type of Bush Meat*	10	33
Monkey	7	23
Antelope	6	20
Grass Cutter / Cane Rat	3	10
Warthog / Bush Pig	3	10
Beef	3	10
Buffalo	1	3
Elephant	1	3
Panther	1	3
Snail	1	3
[illegible]	1	3

* this category arises due to consumers response that they like any type of smoked bush meat.

175. Table 17 indicates that only ten per cent indicated that they purchased smoked beef meat. The most popular type of smoked meat was porcupine, which was favoured by

[34] Respondents offered multiple responses to the question of favourite types of smoked meat. Multiple responses were ranked equally.

47% of respondents. This was followed by 'any type of bush meat' which 33% of respondents highlighted as their choice. The full range of responses are shown in Table 17.

176. Respondents were asked about their preference between smoked bush meat and smoked beef meat. Eighty nine per cent of those surveyed indicated that they preferred smoked bush meat. Only 11% of those surveyed indicated that they preferred smoked beef meat. Those consumers preferring beef meat were either Muslims, or expressed concern for the safety of bush meat which might have been killed with poison[35].

177. That there is a strong preference for smoked bush meat over smoked beef meat is confirmed by respondents indicating that when smoked bush meat is unavailable, they do not seek to purchase smoked beef meat. Respondents were asked to identify what substitutes they would normally buy in these circumstances[36]. Seventy nine per cent opted for the purchase of fish, with 53% indicating that they would buy fresh meat. No consumer indicated that they would buy smoked beef meat.

178. Respondent's partiality to fresh meat was confirmed when they were then asked to give a preference between <u>fresh</u> beef meat and smoked bush meat. Fresh beef meat is not only a more expensive product, but as it is fresh, is also considered as a luxury item. Fifty two per cent of those surveyed opted for fresh beef meat. Respondent's reasons for this choice were: fresh meat was more healthy; there was less suspicion about food safety with fresh meat; and the versatility in the use of fresh meat.

179. Thirty eight per cent of respondents maintained a preference for smoked bush meat compared to fresh beef meat. The reasons cited for this choice were familiarity with bush meat and its superior taste. Ten per cent of respondents had no preference between either product.

180. In anticipation of the popularity of smoked bush meat, consumers were asked whether a cheaper price for smoked beef meat would encourage them to switch their consumption to smoked beef meat. In Douala 54% of respondents stated that even if smoked beef meat were cheaper than smoked bush meat they would still continue to purchase smoked bush meat. Forty six per cent said they would switch consumption in these circumstances.

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[35] Islamic law forbids the consumption of bush animals by Muslims.
[36] Respondents were encouraged to offer multiple responses to this question. Multiple responses were ranked equally.

181. Respondents were asked to indicate why they purchase smoked bush meat[37]. An overwhelming 81% of those surveyed highlighted that taste was the major factor conditioning their purchase of smoked bush meat. A further ten per cent cited custom and tradition as an explanation of their consumption. Surprisingly, only ten per cent indicated that storability influenced their purchase of smoked bush meat[38]. Only one consumer indicated that cost was a factor in the decision to purchase smoked bush meat, confirming that smoked bush meat is the preferred smoked meat irrespective of price differentials.

Results for Yaounde

182. A detailed breakdown of responses to the questionnaire is provided in Appendix 15. The consumer survey in Yaounde revealed that on average, consumers spend FCFA 2,088 (£2.55) on smoked meat per week. The average income of respondents was FCFA 15,158 (£18.50) per week, which indicates that on average consumers spend just under 20% of their income on smoked meat[39].

183. Consumers in Yaounde purchase a variety of different types of smoked meat. The full range, as revealed by the survey is shown in Table 18.

Table 18: Consumer's Preference for Smoked Meat in Yaounde[40]

Most Popular Types of Smoked Meat (sample size = 30)	**Number**	**Percentage**
Monkey	18	60
Antelope	13	43
Any Type of Bush Meat	8	27
Porcupine	8	27
Warthog/ Bush Pig	5	17
Elephant	3	10
Grass Cutter/ Cane Rat	3	10
Buffalo	2	7
Snake	2	7
[illegible]	0	0

184. This table indicates a strong preference for monkey and antelope, with the former being popular amongst 60%

[37] Respondents were encouraged to offer multiple responses to this question. Multiple responses were ranked equally.

[38] This suggests that smoking is primarily a process for extending the trade shelf-life of meat rather than being a process which encourages the storing of meat by consumers.

[39] As in Douala, this result is implausible. The magnitude of the reported expenditure suggests substantial under-reporting of income.

[40] Respondents offered multiple responses to the question of favourite types of smoked meat. Multiple responses were ranked equally.

of those surveyed and the latter registering a figure of 43%. None of those surveyed indicated that they currently consumed smoked beef meat.

185. Respondents were asked for their preference between smoked bush meat and smoked beef meat. Ninety three per cent of those surveyed indicated that they preferred smoked bush meat. Only three per cent indicated a preference for smoked beef meat, with a further three percent indifferent between the two types of smoked meat. Twenty five per cent of respondents in Yaounde stated that smoked beef meat is only produced when beef meat can not be sold fresh. This factor made many consumers wary about the safety of eating smoked beef meat, fearing that it was made of meat which could no longer be sold as fresh.

186. That there is a strong preference for smoked bush meat over smoked beef meat is confirmed by respondents indicating that when smoked bush meat is unavailable, only three per cent would seek to buy smoked beef meat. As in Douala, the most popular substitutes for smoked bush meat were fish and fresh meat, which 79% and 31% opted for respectively.

187. Respondents were then asked to give a preference between <u>fresh</u> beef meat and smoked bush meat. Unlike Douala, where the majority opted for fresh meat, only 23% indicated they would purchase fresh meat. The majority, 79%, said that they preferred smoked bush meat. Three per cent of those interviewed had no preference between either. That smoked bush meat is preferred to fresh beef meat indicates a strong preference for smoked bush meat in Yaounde.

188. Respondents were asked whether they would purchase smoked beef meat if it was cheaper than smoked bush meat. In Yaounde, 53% of respondents stated that even if smoked beef meat were cheaper than smoked bush meat they would still continue to purchase smoked bush meat. Thirty three per cent said they would switch consumption in these circumstances. A further 13% of respondents stated that they were unsure whether they would switch consumption to smoked beef meat.

189. Respondents were asked to indicate why they purchase smoked bush meat[41]. Ninety seven per cent of those surveyed highlighted that taste was the major factor conditioning their purchase of smoked bush meat. A further 28% cited custom and tradition as an explanation of their consumption. Fourteen per cent of consumers

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[41] Respondents were encouraged to offer multiple responses to this question. Multiple responses were ranked equally.

indicated that cost was a factor in the decision to purchase smoked bush meat. The survey also revealed that no consumers indicated that storability was a factor in their purchase decision.

Conclusions

190. The consumer surveys revealed that on average, smoked meat consumers spend 17% of their weekly income on the product in Douala and just under 20% in Yaounde. Although these figures are likely to exaggerate the proportion of actual income spent on smoked meat, they nonetheless suggest that it is an important item of expenditure.

191. Smoked bush meat is primarily consumed for its taste. A selection of responses to the questions on why respondents purchase smoked meat is contained in Box 1. Custom and tradition also figured prominently, with many respondents highlighting their familiarity with bush meat from childhood prior to moving to the city.

Box 1: Selected Statements by Respondents the taste of Smoked Bush Meat

'The taste is original'

'I was born in the forest zone, and I'm used to the good taste...I search all over for it'.

'I buy what is good and what tastes more. I buy smoked bush meat'.

'...because a small quantity gives taste to sauce'.

192. Respondents did not have a high preference for smoked beef meat. The results of the survey indicated that even if smoked beef meat were sold at prices below smoked bush meat, the majority of respondents would still purchase smoked bush meat. In Yaounde, this was particularly pronounced with 53% stating that they would purchase smoked bush meat even if it were more expensive than smoked beef meat.

The Market Potential of Smoked Beef Meat in Douala and Yaounde

193. The results of the production and retail surveys on smoked meat reveal that at present smoked bush meat is the major source of income for producers and retailers of smoked meat. However, the survey indicated a willingness of producers to produce smoked beef and retailers to sell smoked beef if consumer demand was in evidence.

194. The consumer survey indicated a very strong demand and loyalty to smoked bush meat. The survey also revealed that apart from a strong preference for monkey in Yaounde

and porcupine in Douala, most smoked meat consumers are willing to eat any form of smoked bush meat. The motivation for purchasing smoked bush meat is its taste which is universally held in esteem by consumers.

195. The survey revealed that smoked beef meat is considered to be inferior (in taste) to smoked bush meat. Moreover, the survey indicated that even if smoked beef were cheaper than smoked bush meat, the majority of consumers would consume the latter.

196. The Government of Cameroon is increasingly concerned with the consumption of bush meat and its effects on the environment and bio-diversity. This concern stems from the availability of meat from animals currently protected under conservation legislation in the smoked meat markets of Yaounde and Douala[42].

197. The major difficulty facing efforts to regulate the smoked bush meat trade is the widespread availability of bush animals and the belief that these animals are 'free' to those who hunt them[43].

198. In an effort to control the impacts of hunting on the environment, the Government of Cameroon is reviewing hunting regulations. Another policy under consideration is the licensing of smoked bush meat retailers in Douala and Yaounde. The latter policy is intended to regulate hunting rather than ban the activity, but will require efficient policing if it is to be effective.

199. The surveys reveal that if smoked beef meat is to replace smoked bush meat, a number of pre-conditions are necessary:

The final price at which smoked bush meat is traded must incorporate the 'social cost' of producing such meat. A licensing system coupled with a fee structure is currently being reviewed. If this policy is implemented and policed effectively the price of smoked bush meat will rise in Douala and Yaounde. Only after

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[42] Personal communication from a Ministry of Tourism official. The Ministry of Tourism currently issue and police hunting licences for tourists and Cameroonians.

[43] In economic parlance the formal problem at the heart of this difficulty is a divergence between the 'social' and 'private' costs of hunting. If hunters do not consider the costs of hunting on bio-diversity or the environment, the number of animals killed will be above the socially efficient level. Likewise if the social costs of hunting certain 'types' of bush animal are not considered, hunters will kill any animal to make up their quota of production.

such a system is in place will smoked beef meat be able to compete[44].

Smoked beef producers have to persuade potential customers that the meat they are selling is safe. Options could include: offering consumers guarantees; the introduction of voluntary production safeguards and forming a producer trading standards association to police such safeguards; or producers subjecting their produce to government inspection[45].

Smoked beef meat producers will be required to initiate a strong promotion campaign in Douala and Yaounde to persuade consumers to switch to smoked beef meat. This could include stressing the following attributes: availability all year round; uniformity of product; and 'modernity'/sophistication of eating beef meat. This campaign could be supplemented by a sustained effort by the government to educate consumers on the full social costs of eating bush meat.

Initial efforts at promoting smoked beef meat could be directed towards Muslim consumers[46]. However, to ensure the interest of such customers, animals would have to be slaughtered according to Islamic law. This is not considered to be a major constraint as the majority of Cameroon's cattle are located in predominantly Muslim areas of the country.

Conclusions and Recommendations

200. Smoked bush meat is widely available in Yaounde and Douala. In both cities, smoked bush meat is consumed for its superior taste. At present smoked beef meat is not widely available or consumed in either city. In Yaounde, it was shown that at present the average price per portion of smoked beef meat is higher than that of the most popular types of smoked bush meat. In spite of this finding, the majority of smoked meat consumers surveyed for this study indicated that they would maintain purchases of smoked bush meat even if it were more expensive than smoked beef meat.

201. In an effort to control the consumption of smoked bush meat, the Government of Cameroon is reviewing the

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[44] It should be stressed that in the present climate of civil service retrenchment and erosion of real salaries in the public sector, that the prospects for the successful implementation and policing of such regulations is likely to be very limited.
[45] These options were not discussed with smoked beef meat producers.
[46] This is suggested as Muslims do not consume bush meat. The exact Muslim population in Yaounde and Douala is unknown. However, the size of the Muslim quarter in both cities is significant.

current legislation concerning trade in smoked bush meat Such regulation should focus on ensuring that hunters, retailers and consumers consider the full cost of their consumption of bush meat. The assumed effect of such regulation is that the price of smoked bush meat will increase.

202. Although the survey indicated that price was not a key factor conditioning consumption, it is strongly anticipated that if smoked beef meat were available in the market at a competitive price, that consumption patterns would change.

203. It is suggested that until the efficient licensing and policing of the smoked bush meat trade is in force, that the impact of a concerted promotion campaign (see above) for smoked beef meat would be limited. Should efficient policing of the bush meat trade be introduced, it is recommended that NRI and IRZV could then pursue further research and advice to smoked meat producers.

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APPENDICES

Appendix 1 **KILISHI PRODUCER SURVEY**

1. How long have you been producing kilishi commercially?

2. Are you
   -the owner of the business?
   -working for someone else?
   -a member of a group/co-operative?

3. What is (are) the source(s) of the beef for kilishi?
   -purchased from butchers
   -from own cattle
   -others (specify).

4. How much do you spend a week on

   - beef for processing kilishi?

   - transporting yourself to and from the place of beef purchase?

   - transporting purchased beef from place of purchase to place of preparation?

     ingredients for paste?
       groundnuts
       oil
       salt
       firewood
       pepper
       other spices.

   - packaging materials (paper, plastic bags, etc. ?

   - others (please specify)

5. Do you employ people for processing/sale?
   If yes, how many and at what wage per month?

6. What rent do you pay per month for buildings and land used for kilishi production and sale?

7. What equipment do you use for the processing/sale of kilishi?
   (For example: knives, drying mats, mixing bowls for paste).

8. How much does the equipment you use cost. How long does it last before it needs to be replaced?

9. Where do you obtain funds for investment in equipment and raw materials?

10. At the following prices, how many pieces of kilishi do you sell in one production run?

    1000 FCFA......
    500 FCFA......
    300 FCFA......
    200 FCFA......
    100 FCFA......

11. On average, how many production runs do you make in one week?

12. How have prices changed since last month for kilishi?

13. How have prices changed since six months ago?

14. How have prices changed since last year?

15. How many hours do you spend on kilishi business per day?

16. How many days per week do you devote to kilishi

17. Do you supply kilishi all year round?
    If not, at what season of the year do you supply kilishi and why?

18. At present do you have many customers from outside of this province?
    If yes, which province(s)?

19. During the last year, has the number of such buyers increased or declined?

20. Could you expand production if demand increased?
    If yes, by how much?

    If no, please explain why?

21. Would you like to expand production if demand increased?

22. Do you have electricity?

23. Would you be willing to go into business with a trader if he would purchase more of your kilishi?

How many other kilishi producers are there in this area?

25. How much does each kilishi producer in this area produce in one week?

26. Are there any other producers of kilishi outside of this area?

27 What is your sex?

28. What is your age?

29. What is your religion?

Appendix 2 RETAIL SURVEY FOR KILISHI

1. Type of business

2. Do you sell or have you ever sold kilishi?
If yes.
-when did you sell kilishi?
-what price did/do you sell kilishi?
-what quantity did/do you sell in one week?

3. What types of meat snacks do you sell?
On average, what is the turnover of these meat snacks in one week?

Name of meat snack	Quantity sold in one week	Average price per portion of snack

4. What other types of snacks do you sell (e.g. peanuts, maize, etc.)?
On average, what is the turnover of these snacks?

Name of Snack	Quantity sold in one week	Average price per portion of snack

5. What do you think of the kilishi you have just sampled?
How does it compare to the snacks you already offer?

6. If you were to sell kilishi, what mark-up or percentage of the wholesale price would you add?

7 If you were to sell kilishi, how would you prefer to purchase the product:

-credit from the supplier?
-purchase outright from supplier?
-commission basis?
-other (please specify)?

8. Would you be interested in selling kilishi?
If not.......why not?

Appendix 3 KILISHI CONSUMER SURVEY

What type of meat snacks do you eat?

2. How many meat snacks would you eat in one week?

3. What is the average price of each of these snacks?

4. Have you ever eaten kilishi?
   If not, why?
   -not available
   -too expensive
   -others (please specify)

5. Did you like the sample of kilishi, which you have just eaten?

   If yes......what did you like most (rank in order of preference)

   (1 ...... Very Good)
   (2.............Good)
   (3.....Satisfactory)
   (4.........Not Good)

   The Appearance........................Rank No.
   The Smell.............................Rank No.
   The Taste.............................Rank No.

6. If kilishi were available would you buy it?

7. What price do you think would be fair for the kilishi you have just eaten?

8. What is the absolute maximum you would pay for the kilishi you have just sampled?

9. Where do you think the best place to sell kilishi would be?
   -in supermarkets
   -in hotel bars
   -in bars
   -on the street

   If kilishi were sold at the same price as your usual meat snack, would you buy kilishi or your usual snack?

   What is your age?

   What is your sex?

13. What is your average income per week?

APPENDIX 4: Kilishi Producers Responses to Questionaire (no financial data) - N'gaoundere

			PRODUCERS					
	A	B	C	D	E	F	G	H
Status in Business	Partner	Owner	Manager	Owner	Owner	Manager	Manager	Owner
			(for Brother)			(for Father)	(for Father)	
Years in Business	1	27	n.d.	3	2	3	15	12
Period of Production	All Year	All Year	All Year	All Year	All Year	All Year	All Year	All Year
Source of Funds for Business	Own Capital	Own Capital	Brothers Capital	Loan from friend (*)	Loan from son (**)	Fathers capital	Fathers capital	Own capital
								& trade credi
Willing to Expand Production	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Willing to Form Links with Traders	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Number of Employees (exc. Family)	0	4***	0	2	3	1	2	2
Price Inflation								
One Month	No	No	No	No	No	No	No	No
Six Months	No	No	No	No	No	No	No	No
One Year	No	No	No	Fallen	Fallen	Increased	No	No
Location os Sales								
Local Area	Yes			Yes				
Other Provinces								
Both		Yes	Yes		Yes	Yes	Yes	Yes
Sales in Other Provinces								
Increased								Yes
Decreased					Yes	Yes	Yes	
The Same		Yes	Yes					
Knowledge of Kilishi Producers								
in N' gaoundere:								
Their Number	3	Unsure	Unsure	Unsure	3	Unsure	5	2
Their Output	Do not know	Do not know	Do not know	Do not know	Do not know	Do not know	Do not know	Do not know
Knowledge of Kilishi Producers								
Outside N' gaoundere:								
Their Number	Unsure	Unsure	Unsure	Unsure	Unsure	Unsure	Unsure	Unsure
Their Output	Do not know	Do not know	Do not know	Do not know	Do not know	Do not know	Do not know	Do not know
Availability of Electricity	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Number of hours worked (by produce	84	84	84	36	84	60	70	75
Cattle Consumption								
Price Paid Per Kilo	800	800	1000	750	800	900	850	800
Raw meat used (kg):	24	113	50	51	38	75	40	80
Cattle required to produce fillet &								
hind quartrer meat requirements								
(based on 45kg per animal):	0.5	2.5	1.1	1.1	0.8	1.7	0.9	1.8
Average Kilishi Weight Produced								
per Week (KGs)	19.35	32.00	27.04	14.61	16.82	36.59	17.91	23.50
Sex	Male	Male	Male	Male	Male	Male	Male	Male
Age	25	50	26	33	56	32	30	30
Religion	Islam	Islam	Islam	Islam	Islam	Islam	Islam	Islam
Language	French	French	French	French & English	French	French	French	French

Notes: n.d. = no data submitted; * = with interest; ** = without interest; ***=apprentices are employed but recieve no wage

Appendix 5: Kilishi Producers Responses to Questionaire (no financial data) - Garoua

	PRODUCERS										
	A	B	C	D	E	F	G	H	I	J	K
Status in Business	Owner	Owner	Owner	Owner	Owner	Owner	Owner	Owner	Owner	Owner	Owner
Years in Business	25	10	1.5	8	2	4.5	17	41	29	30	20
Period of Production	All Year	All Year	All Year	All Year	All Year	All Year	All Year	All Year	All Year	All Year	All Year
Source of Funds for Business	Own Capital & trade credit	Own Capital	Own Capital	Loan from friend (**)	Loan from friend (*)	Own Capital	Own Capital	Own Capital	Own Capital	Own Capital	Trade Credit
Willing to Expand Production	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Willing to Form Links with Traders	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Number of Employees (exc. Family)	3	2	1	0	2***	1	2	5***	5	4***	2
Knowledge of Kilishi Producers in Garoua											
Their Number	>5	Unsure	5	>5	Unsure	>5	7	Unsure	Unsure	10	Unsure
Their Output	Unsure	Unsure	Unsure	Unsure	Unsure	Unsure	Unsure	Unsure	Unsure	Unsure	Unsure
Price Inflation											
One Month	No	No	No	No	No	No	No	No	No	No	No
Six Months	No	No	No	No	No	No	No	No	No	Increased	no
One Year	No	No	No	No	No	No	Fallen	Increased	No	Increased	No
Location of Sales											
Local Area			Yes	Yes		Yes	Yes				
Other Provinces											
Both	Yes	Yes			Yes			Yes	Yes	Yes	Yes
Sales in Other Provinces											
Increased					Yes				Yes		
Decreased											
The Same	Yes	Yes						Yes		Yes	Yes
Knowledge of Kilishi Producers Outside N' gaoundere:											
Their Number	Unsure	Unsure	Unsure	Unsure	Unsure	Unsure	Unsure	Unsure	Unsure	Unsure	Unsure
Their Output	Unsure	Unsure	Unsure	Unsure	Unsure	Unsure	Unsure	Unsure	Unsure	Unsure	Unsure
Availability of Electricity	Yes	Yes	No	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes

	PRODUCERS												
	A	B	C	D	E	F	G	H	I	J	K	Total	Average
Number of hours worked (by producer)	60	72	72	84	49	78	70	140	66	144	64		84
Cattle Consumption													
Price Paid Per Kilo	800	800	800	800	750	775	800	750	800	800	800		789
Raw meat used (kg)	30	63	30	30	20	40	74	75	270	60	35	727	66
Cattle required to produce fillet &													
hind quarter meat requirements													
(based on 45kg per animal).	0.7	1.4	0.7	0.7	0.4	0.9	1.6	1.7	6.0	1.3	0.8	16	1.47
Average Kilishi Weight Produced													
per Week In (kg)	13.95	17.44	8.41	10.72	9.87	11.60	21.80	29.67	74.30	24.92	15.26	237.95	21.63
Sex	Male	Male	Male	Male	Male	Male	Male	Male	Male	Male	Male		
Age	36	48	27	25	22	28	30	64	69	47	33		
Religion	Islam	Islam	Islam	Islam	Islam	Islam	Islam	Islam	Islam	Christian	Islam		
Language	French & English	French	French	French	French	French	French	French	French	French	French		

Notes. n.d. = no data submitted; * = with interest; ** = without interest; ***=apprentices are employed but recieve no wage

Appendix 6: Results From Kilishi Retail Survey

Place of Survey: Douala

Date of Survey: 5.12.94- 7.12.94

Sample Size: 30

Type of Retail Outlet Surveyed (sample = 30)*	Number	Percentage
Bar	13	43.33
Restaurant	6	[illegible]
[illegible]	4	[illegible]
[illegible]	3	[illegible]
[illegible]	2	[illegible]
[illegible]	1	[illegible]
[illegible]	1	[illegible]

Familiarity With Kilishi (sample = 30)*	Number	Percentage
Sold Previously	3	10.00
Not Sold Previously	27	90.00

Meat snacks Sold in One Week (All retailers)	Number of Outlets	Total Value (FCFA)	Average Price Per Portion
Suya (beef)	14	574,450	118
Intestines	7	203,250	101
Meat Balls	5	268,000	660
Kebab	4	208,520	623
Boiled Skin of Cow	3	44,000	100
Pork	1	35,000	1,000
Pepper Soup	1	21,000	1,500
TOTAL (FCFA)		1,354,220	Av. 586

Non-Meat snacks Sold in One Week (All retailers)	Number of Outlets	Total Value (FCFA)	Average Price Per Portion
Omelette	7	91,200	220
Roasted Fish	4	76,500	575
Groundnuts	3	7,400	50
TOTAL		175,100	Average = 282

Average Value of Non-Meat to Value of Meat snacks: 12.93%

Response to Sample		

(sample=30)*	Number	Percentage
Percentage Who Liked Kilishi	29	96.67
Percentage Who Did Not Like Kilishi	1	3.33

*Sample Size determined by complete answer to question

Expected Mark-Up (sample=29)*	**Number**	**Average Percentage**
Restaurant	6	53.80
Bar	13	49.80
Two-star Hotel	2	47.00
Roadside Stall	3	42.30
Unclassified Hotel	3	40.00
One Star Hotel	1	35.00
Average Expected Mark-Up		
For All Establishments	29	48.80

Retailers Preference for Mode of Purchase From Supplier (sample = 29)*	**Number**	**Percentage**
Purchase Outright for Cash	14	48.28
Commission Basis	11	37.93
Credit from Supplier	4	13.79

Retailers Interest in Selling Kilishi (sample =30)*	**Number**	**Percentage**
Interested	29	96.67
Not Interested	1	3.33

Appendix 7. Results From Kilishi Retail Survey

Place of Survey: Yaounde

Date of Survey: 11.12.94- 14.12.94

Sample Size: 30

Type of Retail Outlet Surveyed (sample = 30)*	Number	Percentage
Bar	16	53.33
Restaurant	4	13.33
Roadside Stall	1	3.33
Unclassified Hotel	1	3.33
Two-star Hotel	2	6.67
One Star Hotel	2	6.67
Supermarket	4	13.33

Familiarity With Kilishi (sample = 30)*	Number	Percentage
Sold Previously	0	0.00
Not Sold Previously	30	100.00

Meat snacks Sold in One Week (All retailers)	Number of Outlets	Total Value (FCFA)	Average Price Per Portion
Suya (beef)	16	521,500	416
Sausage	8	455,625	933
Intestines	8	325,000	144
[illegible]	6	242,000	[illegible]
Pepper Soup	5	87,100	
Porcupine			
Boiled Skin of Cow			
TOTAL (FCFA)			

Non-Meat snacks Sold in One Week (All retailers)	Number of Outlets	Total Value (FCFA)	Average Price Per Portion
Omelette	14	240,700	181
Vegetables	6	81,250	138
Roasted Fish	9	240,250	692
Groundnuts	5	61,600	60
TOTAL		623,800	Average =267

Average Value of Non-Meat to Value of Meat snacks: 32.58%

Response to Sample (sample=30)*	Number	Percentage
Percentage Who Liked Kilishi	25	83.33
Percentage Who Did Not Like Kilishi	5	16.67

*Sample Size determined by complete answer to question

Expected Mark-Up (sample=29)*	Number Surveye d	Average Percentage
Restaurant	4	117.00
Bar	16	66.00
Two-star Hotel	2	122.00
Roadside Stall	1	66.00
Unclassified Hotel	1	50.00
One Star Hotel	2	62.00
Average Expected Mark-Up		
For All Establishments	30	71.00

Retailers Preference for Mode of Purchase From Supplier (sample = 29)*	Number	Percentage
Purchase Outright for Cash	12	40.00
Commission Basis	9	30.00
Credit from Supplier	17	56.67

Retailers Interest in Selling Kilishi (sample =30)*	Number	Percentage
Interested	30	100.00
Not Interested	0	0.00

Appendix 8: Results From Kilishi Consumer Survey
Place of Survey: Douala
Date of Survey: 5.12.94 - 7.12.94
Sample Size: 29

Indicator	Results	
Average Frequency of Purchase of Meat snacks (per week)	7	29
Average Price Paid per Purchase of Meat Snack (FCFA)	200	29
Average Weekly Expenditure (FCFA)	1400	29
Familiarity With Kilishi		
Percentage Who Had Eaten Kilishi Before	62.07	18
Percentage Who Had Not Eaten Kilishi Before	37.93	11
Response to Sample		
Percentage Who Liked Kilishi	89.66	26
Percentage Who Did Not Like Kilishi	10.34	3
Respondents Ranking of Appearance of Kilishi (Percentage of Each Category in Total)		
Very Good	6.90	2
Good	79.31	23
Satisfactory	3.45	1
Not Good	10.34	3
Total	100	29
Respondents Ranking of Smell of Kilishi (Percentage of Each Category in Total)		
Very Good	10.34	3
Good	82.76	24
Satisfactory	3.45	1
Not Good	3.45	1
Total	100	29
Respondents Ranking of Taste of Kilishi (Percentage of Each Category in Total)		
Very Good	27.59	8
Good	58.62	17
Satisfactory	6.90	2
Not Good	6.90	2
Total	100	29
Average Price Which Would be Paid for Kilishi of a Similar Size to the Sample (FCFA)	70	29
Average Maximum Price Which Would be Paid for Kilishi of a Similar Size to the Sample (FCFA)	105	29

Respondents Preference for Point of Sale		
Supermarkets	75.86	22
Hotel Bars	65.52	19
Bars	75.86	22
On the Street	37.93	11
Meat snacks Usually Consumed by Respondents		
Suya (beef)	82.76	24
Kebab	20.69	6
Suya (sheep)	13.79	4
Intestines	13.79	4
Suya (goat)	10.34	3
Kilishi	10.34	3
Roast Chicken	6.90	2
Meat Balls	6.90	2
Pepper Soup	3.45	1
Percentage of Respondents Who Would Substitute Usual Snack for Kilishi if Sold at the Same Price	55.17	16
Percentage of Respondents Who Would Not Substitute Usual Snack for Kilishi if Sold at the Same Price	44.83	13
Average Age of Respondents	36	27
Average Income of Respondents	18333	21
Average Percentage of Income Spent on Snacks	7	21

Appendix 9: Results From Kilishi Consumer Survey

Place of Survey: Yaounde
Date of Survey: 11.12.94 - 14.12.94
Sample Size: 32

Indicator	Results	
Average Frequency of Purchase of Meat snacks (per week)	5	31
Average Price Paid per Purchase of Meat Snack (FCFA)	300	32
Average Weekly Expenditure (FCFA)	1500	31
Familiarity With Kilishi		
Percentage Who Had Eaten Kilishi Before	71.88	23
Percentage Who Had Not Eaten Kilishi Before	28.13	9
Response to Sample		
Percentage Who Liked Kilishi	84.38	27
Percentage Who Did Not Like Kilishi	15.68	5
Respondents Ranking of Appearance of Kilishi (Percentage of Each Category in Total)		
Very Good	19.35	6
Good	67.74	21
Satisfactory	9.68	3
Not Good	3.23	
Total	100	31
Respondents Ranking of Smell of Kilishi (Percentage of Each Category in Total)		
Very Good	0.00	0
Good	84.38	27
Satisfactory	12.50	4
Not Good	3.13	1
Total	100	32
Respondents Ranking of Taste of Kilishi (Percentage of Each Category in Total)		
Very Good	37.50	12
Good	53.13	17
Satisfactory	9.38	3
Not Good	0.00	0
Total	100	32
Average Price Which Would be Paid for Kilishi of a Similar Size to the Sample (FCFA)	61	31
Average Maximum Price Which Would be Paid for Kilishi of a Similar Size to the Sample (FCFA)	78	31

Respondents Preference for Point of Sale		
Supermarkets	84.38	27
Hotel Bars	84.38	27
Bars	78.13	25
On the Street	56.25	18
Meat snacks Usually Consumed by Respondents		
Suya (beef)	89.66	26
Kebab	48.28	14
Intestines	20.69	6
Kilishi	6.90	2
Roast Chicken	6.90	2
Meat Balls	6.90	2
Percentage of Respondents Who Would Substitute Usual Snack for Kilishi if Sold at the Same Price	50.00	13
Percentage of Respondents Who Would Not Substitute Usual Snack for Kilishi if Sold at the Same Price	50.00	13
Average Age of Respondents	31	31
Average Income of Respondents	26260	21
Average Percentage of Income Spent on Snacks	5.8	21

Appendix 10: Proposed Structure of Participatory Workshop on Kilishi.

1. It is recommended that the results of the production, retail and consumer marketing surveys be conveyed back to the producers of kilishi. The vehicle for such dissemination should be an interactive workshop facilitated by NRI and IRZV.

2. The primary purpose of such a workshop is to elicit the producers' response to both the scale and diversity of their own production and to the market potential revealed by the surveys.

3. On the assumption that such a response will be positive (this was indicated in the production surveys), it is proposed that harnessing market potential in the south of Cameroon can be greatly facilitated by conducting workshop sessions on the following subjects:

a- production and storage techniques;

b- business planning, marketing skills and basic accounting methods;

c- an introduction to trading relationships with wholesalers and retailers; and

d- introduction to different forms of producer co-operation.

4. These sessions will be conducted through inputs from NRI staff.

5. Joint sessions between producers, retailers and traders would include:

a- meat snack consumption in Cameroon;

b- the requirements of retailers in Cameroon;

c- the requirements of traders in Cameroon;

d- branding and packaging techniques;

e- promotion techniques

6. Sessions a, d, and e would be conducted by NRI, with session b and c being either a presentation by selected retailers and traders or an open 'brainstorming and discussion session'

7. The workshop will close with an opportunity for individual producers, traders and retailers to discuss the subjects raised in the workshop.

8. The majority of proposed participants will be located in N'gaoundere. Accordingly it is proposed to hold the workshop in there and invite producers from Garoua and retailers from Yaounde.

Appendix 11: SMOKED MEAT PRODUCER SURVEY

1. How long have you been producing smoked meat commercially?

2 Are you
   . the owner of the business?
   . working for someone else?
   . a member of a group/co-operative?

3. What is (are) the source(s) of the meat for smoked meat?
   . purchased from hunters
   . from own hunting
   . others (specify).

4. How much do you spend a week on

   - animal carcasses
   - charcoal
   - other inputs for producing smoked meat

5. Do you employ people for to help you produce smoked meat?
   If yes, how many and at what wage?

6. How much does the equipment you use to produce smoked meat cost? How long does it last before it needs to be replaced?

7. What prices do you charge for smoked meat?

8. How much do you sell in a week?

9. Have prices changed since last month for smoked meat?

10. Have prices changed since six months ago?

11. How have prices changed since last year?

12. How many days per week do you devote to producing smoked meat?

13. Do you supply smoked meat all year round?
    If not, why?

14. Where do you sell your smoked meat?

Do you travel to town to sell , or do buyers travel to you?

16. Has your business increased or decreased since last year?

17. Could you expand production if demand increased?
If yes.........by how much?
If no..........explain why?

Would you like to expand production if demand increased?

19. Would you be willing to go into business with a trader if he would purchase more of your smoked meat?

How many other smoked meat producers are there in this area?

How much does each smoked meat producer in this area produce in one week?

22. What is your sex?

23. What is your age?

What is your religion?

Appendix 12: SMOKED MEAT RETAIL SURVEY

1. Type of Business

2. What types of smoked meat do you sell?

3. On average what is the turnover per week of each type of smoked meat?

Type of meat	Quantity sold in one week	Average price per portion sold

4. On average, what mark-up or percentage of the wholesale price do you add for smoked meat?

5. Would you be interested in selling smoked beef meat? If not.......why not?

Appendix 13: **SMOKED MEAT CONSUMER SURVEY**

1. Do you eat smoked bush meat regularly?
   If yes what type of smoked bush meat do you eat?

2. On average, how many times do you purchase smoked bush meat in one week?

3. What is the average price paid per purchase?
   How many would this feed?

4 Do you prefer beef smoked meat or bush smoked meat?
   Why?

5. If beef smoked meat were cheaper than bush smoked meat, which would you buy?

6. When smoked bush meat is not available, what do you eat?

7. What is your age?

8. What is your sex?

9. What is your average income per week?

Appendix 14: Results from Smoked Meat Consumer Survey (Douala)

Place of Survey: Douala
Date of Survey: 8.12.94 - 9.12.94
Sample Size: 30

Indicator	RESULTS	Percentage
Most Popular Types of Smoked Meat (sample size = 30)		
Porcupine	14	46.67
Any Type of Bush Meat	10	33.33
Monkey	7	23.33
Antelope	6	20.00
Grass Cutter / Cane Rat	3	10.00
Warthog / Bush Pig	3	10.00
Beef	3	10.00
Buffalo	1	3.33
Elephant	1	3.33
Panther	1	3.33
Snail	1	3.33
Snake	1	3.33
Average Weekly Expenditure on Bush Meat	26	3,031
Consumers Preference for Smoked Bush Meat Compared to Smoked Beef Meat (Sample = 28)		
Those Preferring Smoked Bush Meat	25	89.29
Those Preferring Smoked Beef Meat	3	10.71
No Preference Between Either	0	0
Consumers Preference for Smoked Bush Meat Compared to Fresh Beef Meat (Sample = 29)		
Those Preferring Smoked Bush Meat	11	37.93
Those Preferring Fresh Beef Meat	15	51.72
No Preference Between Either	3	10.34
If Smoked Beef Meat Were Cheaper Than Smoked Bush Meat (Sample = 28)		
Percentage Who would Buy Smoked Beef Meat	13	46.43
Percentage Who would Buy Smoked Bush Meat	15	53.57
Alternatives to Smoked Bush Meat When it is Unavailable (Multiple Responses To Question Possible) (Number of Consumers Providing Answers = 28)		
Fish (all types)	22	78.57
Fresh Meat	15	53.37

Vegetables		
Smoked Beef	3	10.71
Chicken	0	0
	0	0
Reasons For Buying Smoked Bush Meat (Multiple Responses To Question Possible) (Number of Consumers Providing Answers = 21)		
Taste		
Custom	17	80.95
Storability	2	9.52
Cost	2	9.52
	1	4.76
Average Income of Respondents	19	18,184
Average Expenditure on Smoked Meat as a Percentage of Average Income	19	16.67

Appendix 15: Results from Smoked Meat Consumer Survey Yaounde

Place of Survey: Yaounde
Date of Survey: 14.12.94 - 15.12.94
Sample Size: 30

Indicator	RESULTS	
	Sample Size / Number	Percentage
Most Popular Types of Smoked Meat (sample size = 30)		
Monkey	18	60.00
Antelope	13	43.33
Any Type of Bush Meat	8	26.67
Porcupine	8	26.67
Warthog/ Bush Pig	5	16.67
Elephant	3	10.00
Grass Cutter/ Cane Rat	3	10.00
Buffalo	2	6.67
Snake	2	6.67
Beef	0	0.00
Average Weekly Expenditure on Bush Meat	29	2,088
Consumers Preference for Smoked Bush Meat Compared to Smoked Beef Meat (Sample = 30)		
Those Preferring Smoked Bush Meat	28	93.33
Those Preferring Smoked Beef Meat	1	3.33
No Preference Between Either	1	3.33
Consumers Preference for Smoked Bush Meat Compared to Fresh Beef Meat (Sample = 30)		
Those Preferring Smoked Bush Meat	22	73.33
Those Preferring Fresh Beef Meat	7	23.33
No Preference Between Either	1	3.33
If Smoked Beef Meat Were Cheaper Than Smoked Bush Meat (Sample = 30)		
Percentage Who would Buy Smoked Beef Meat	10	33.33
Percentage Who would Buy Smoked Bush Meat	16	53.33
Not Sure	4	13.33
Alternatives to Smoked Bush Meat When it is Unavailable (Multiple Responses To Question Possible) (Number of Consumers Providing Answers = 28)		
fish	23	79.31
fresh beef meat	9	31.03

vegetables	7	24.14
smoked beef	3	10.34
chicken	0	0.00
Reasons For Buying Smoked Bush Meat (Multiple Responses To Question Possible) (Number of Consumers Providing Answers = 21)		
Taste	28	96.55
Custom	8	27.59
Cost	4	13.79
Storability	0	0.00
Average Income of Respondents	19	15,158
Average Expenditure on Smoked Meat as a Percentage of Average Income	19	19.60