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Niger:

Profile of cereal markets

Strengthening Emergency Needs Assessment Capacity (SENAC)

August 2005

Niger: Profile of cereal markets

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ACRONYMS

CFSVA	Comprehensive Food Security and Vulnerability Analysis
CILLS	Permanent Inter-State Committee for Drought Control in the Sahel
DNPGCA	National Food Crisis Prevention and Management Mechanism (Dispositif National Prévention et Gestion des Crises Alimentaires)
DPP	Directorate for Plant Protection
EFSA	Emergency Food Security Assessment
FAO	United Nations Food and Agriculture Organization
MoA	Ministry of Agriculture
WFP	World Food Programme
EWS	Early Warning System
RDS	Rural Development Strategy
AMIS	Agricultural Markets Information System
SENAC	Strengthening Emergency Needs Assessment Capacity Project
VAM	Vulnerability Analysis and Mapping

A. SYNTHESIS AND RECOMMENDATIONS

1. Synthesis

1. Markets take on significant importance for food security in Niger. According to the preliminary results of the WFP Comprehensive Food Security and Vulnerability Analysis (CFSVA), 86 percent of the population were dependent for their millet consumption on market purchases in April and May 2005. With funding from the Strengthening Emergency Needs Assessment Capacity (SENAC) project, in June 2005 WFP launched a study of the cereal markets in Niger. The objectives were to gain a better understanding of how markets function, to develop tools for tracking market indicators and to explain the price fluctuations since the last harvest in October 2004. An interim report dealing with the latter issue was published on 17 August 2005. The current 'market profile' not only discusses the 2004/2005 price increases, but also with how the markets function and the tools for monitoring the markets.

2. The market analysis and writing of this report were limited by the lack of reliable information, especially with respect to imports and exports of agricultural products and the quality of agricultural statistics. For instance, 500 grams of cereals were available per day and per inhabitant during the last two food crises: these data do not give clear indications of a crisis!

3. The **supply** of agricultural products is composed of national production and imports. Even if the first source provide for most of the food needs of the population, the role of imports is crucial in a cereal-deficit country like Niger. A strong coping capacity able to deal with the strong fluctuations of the agricultural production is of vital importance. In the past, imports acted as a valve, increasing substantially in the year following a bad harvest.

4. The last harvest was approximately 10 percent lower than the five-year average. However, official imports decreased by 65 percent in comparison to the average during the last five harvest seasons. Thus, lower imports worsened the effects of the production shock on supply instead of mitigating it. The drop in imports is even more surprising if you consider the importance of the price increase of cereals in Niger.

5. The collapse of total imports is provoked by lower imports for all major types of cereals, coming from various countries. The origins of this weak import performance lie in the increase of cereal prices in Nigeria and Mali, as well as in the informal ban on cereal exports by Burkina Faso. Various reasons were put forward to explain the increase of prices in Nigeria, such as: i) the policy to promote the agricultural processing industry; ii) a better surveillance of the borders to lower informal exports, especially to Niger; iii) the ban on rice imports; and iv) the low production during the 2004/2005 harvest season. Unfortunately, the Government of Niger and its partners only have a superficial knowledge of the evolution of prices and production in Nigeria. In any case, the precariousness of the supplies in the sub-region and the low capacity of the trans-border commercialization system supposedly supplying the Niger population, have not provided affordable supplies since the 2004/2005 harvest.

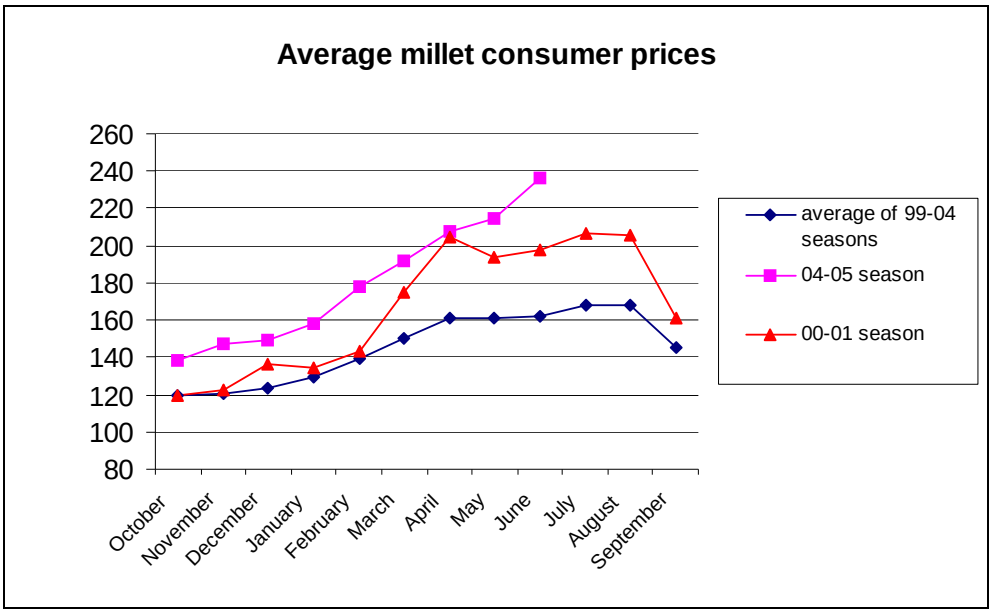
6. Structurally, it seems that Nigerian cereals lost their competitiveness compared to imports from countries such as Mali and Burkina Faso. Indications justifying this are: i) the margins for millet trade from Jibia to Niamey are hardly attractive; ii) maize imports from Nigeria were structurally lower than those of Burkina Faso for the past years; and iii) the traders confirmed the loss of competitiveness of Nigerian cereals during the market survey.

7. Regarding **demand**, a distinction should be made between demand satisfied by family stocks and demand expressed on the markets. The latter is composed of internal and external demand. Although there is no reason to expect an increase in the total domestic demand, it seems

logical that the market demand increased after the low agricultural production in 2004. The lack of data on exports does not allow us to draw conclusions on the level of external demand.

8. The low level of agricultural production, the decrease in imports and the increase of market demand led to increased markets tensions, translating into a sudden rise in prices.

9. The monthly **prices** of millet, the main staple food for most of the population, but also of sorghum and maize, have been notably higher during the 2004–2005 agricultural harvest seasons than the average of the last five years and even exceed the record prices shown during the last bad harvest of 2000–2001. According to data from June 2005, the price of millet in national markets was 236 FCFA, which is 74 FCFA higher than the average over five years (45 per cent).



Source: SIMA, July 2005.

10. The network of cereal markets includes smallholders selling their production, primary and secondary collectors, wholesalers, transporters, retailers and about fifty merchants engaged in imports and exports. Markets can be classified in different categories: consumption markets, collection markets, border markets and wholesale markets. In Niger, Nigeria and in other neighbouring countries, the main markets are well integrated.

11. During 'average' years, millet and sorghum are collected in the three to four month period following the harvest in the surplus regions of Zinder and Maradi, and are subsequently sold in Niamey, Tahoua, Agadez and in neighbouring deficit regions. Starting in January, the domestic supply is progressively replaced by imports: Nigeria supplies Niamey and the eastern regions and the centre of the country; Mali and Burkina Faso deliver millet, maize, sorghum to the western regions, including Niamey.

12. A particular feature of the Niger cereal markets and its merchants is the near absence of cereal storage for a longer period (for several months). The quick turnover of the stocks due to low working capital, the risk of deflation and the lack of information regarding food aid distribution and methods, make markets very sensitive to price fluctuations on supplying markets in surrounding countries.

13. The position of small farmers and rural consumers is not ideal because of the: i) lack of influence on prices ; ii) high transaction/commercialization costs ; iii) absence or very low supply of agricultural products by a limited number of merchants in distant markets during certain periods of the year ; iv) high demand for purchasing cereals during years characterized by high

prices and low demand during years characterized by low prices; v) lack of capacity to attenuate price and production shocks; and vi) the objective of food security instead of income maximization.

2. Recommendations

14. The recommendations are the following:

- Concerning the annual evaluations of crop production, imports and the cereal balance sheet, it is recommended that an explicit supply-demand analysis for cereals in the sub-region be integrated. These evaluations, conducted by the Government, CILSS and other partners, generally in October, should base their estimations for the imports by Niger on the agricultural production in different countries of the sub-region, as well as on the conditions of markets in those countries. In practical terms, the Government/FAO/WFP/other partners' joint mission scheduled for October 2005 should not only be based on an analysis of the Niger situation, but also on an evaluation of the situation in Nigeria, Mali, Benin, Burkina Faso and other coastal countries.

- Secondly, a monitoring system of informal and formal cross-border flow should be organized. In this regard, the current effort of CILSS, in collaboration with the European Union, should be joined by WFP and its partners so as to monitor imports and exports to Nigeria, Benin, Mali and Burkina Faso from October 2005 onwards. Data should be available on a monthly basis, sorted by agricultural product and by country. If this option fails, the October 2005 joint mission should propose alternatives.

- Thirdly, monitoring the possible impact of food aid on the markets should be ensured. To this end, WFP signed a contract with SIMA, which will be in charge of monitoring 35 markets weekly until the end of 2005. Following the end of this contract, WFP should monitor markets monthly using SIMA data posted in its monthly bulletin. A list of indicators and analysis to come is included in this report; software will be developed before the end of the year.

- Next, it is proposed that WFP set up a food security monitoring system (FSMS), as is already in place in Mali, Côte d'Ivoire and Guinea. This FSMS could consist of quarterly household surveys aimed at collecting data on nutrition and in analyzing food situation and links/relationship with the markets. This last point should clarify the dynamic links between vulnerable populations and their decision to go to markets. Collected data would be compared to the 2005 CFSVA results from WFP.

- Fourthly, an evaluation on the quality of the agricultural statistics is recommended, specifically to shed light on the discrepancy between data on food supply and the apparent problem of consumption. To do so, a close collaboration between the government and FAO is necessary.

- It is recommended that the DNPGCA communication strategy be evaluated to minimize the eventual impact of its 'subsidized sales programme' on the behaviour of merchants, and in particular on their storage activities.

- Finally, it is recommended to work with the Government and its partners to support SIMA to start collecting, as a regular task, information on a sample of small rural and distant markets located in deficit areas, to have a better understanding of their integration with regional markets. In addition, it is recommended that SIMA regularly weigh cereal bags in the main importation markets (Jibia, Malanville, Torodi, etc.). Alternatively, the collaboration with the Market Information Systems in Burkina Faso, Benin and Mali should be intensified to obtain monthly information exchanges on prices.

B. OBJECTIVES AND METHODOLOGY

1. Objectives

1. The general aim of this analysis is to contribute to a better understanding of the interaction between the functioning of 'agricultural produce' markets and groups that are vulnerable to food insecurity. The specific objectives are as follows:

- Assessment of food and agricultural produce supply and of factors affecting agricultural produce availability during the current year compared with the last 5 years;
- Assessment of the demand for agricultural produce during the current year compared with the last 5 years;
- Assessment of problems and success factors connected with the proper functioning of markets, particularly those related to market access;
- Explanation of the exceptional variation in agricultural produce prices during the current year compared with the last 5 years;
- Analysis of market integration;
- Establishment of WFP country bureau analytical and market monitoring tools; and
- Collecting necessary information for elaborating a standard market model.

2. Despite the importance of the role of livestock markets for food insecurity vulnerability, the WFP has focused on agricultural produce markets owing to the lack of resources.

2. Methodology

2.1 Consultations and analysis of secondary information

3. Work began with a series of meetings with WFP partners engaged in first-hand analysis of markets in Niger, such as representatives of the government (SAP, AMIS), of FEWS Net, Afrique Verte, the European Union, AGRHYMET and ICRISAT. An exchange of information on previous market studies in Niger and on the objectives of this exercise contributed to putting basic data collection and analysis into focus.

4. Three types of secondary information were dealt with: i) existing market studies; ii) market prices collected by AMIS; and iii) general statistics on imports, production, etc. As far as the first type is concerned, the most revealing recent study is: the AMIS 'Study on the Cereal Trade in Niger' funded by French Development Cooperation (2002). Another important study is Hamadou Seyni's (July 1997): 'Liberalization of trade in food products in Niger and the organization of private players'. Also worthy of mention is the survey conducted by ICRISAT in collaboration with the University of Louvain in Belgium. This survey particularly concerns the theoretical analysis of the impact of food aid on markets and the empirical analysis of the functioning of markets in Niger (price movements). Within the framework of the 'Comprehensive Food Security and Vulnerability and Assessment' (CFSVA), general statistical data have been collected and analyzed by a national consultant,

who has drawn up a report on food insecurity and a data base containing statistical data necessary for the market analysis.

5. These consultations and the analysis of secondary information have shown the existence of a good knowledge of the general functioning of cereal markets in Niger, whilst the following areas are practically unexplored : i) interactions between vulnerable groups and markets ; ii) cross-border flows with, say, Nigeria ; and iii) the reasons for price movements since the 2004 harvest. The collection and analysis of primary data are intended to throw light on these issues.

2.2 Collection and analysis of primary information

6. Information is collected from two groups: farm households and agricultural produce traders. Interviews with farm households have clarified the interactions between this group and markets, whilst surveys among traders have led to a better knowledge of the workings of markets, especially since the 2004 harvest.

7. **Sampling.** Based on the 180 villages selected according to a probabilistic survey within the CFSVA framework, distributed among the 6 agro-ecological zones targeted by the CFSVA, ten of these 180 villages were randomly selected for the interviews with farm households (two for each agro-ecological zone under observation: the agro-ecological zone 'desert' was discarded from this market analysis).

8. Regarding on the interviews with traders, four different types of markets were observed: the rural collector market, the cross-border market, the wholesale market and the consumer market. With regard to rural markets, the ones in the vicinity of farm household villages were chosen (10 markets), while for the other markets the most important ones were chosen: 4 cross-border markets, 4 wholesale markets and two consumer markets. All interviews were carried out between 30 June and 22 July, 2005.

9. **Questionnaires and data collection.** Two types of questionnaires were used for farm households on the one hand and traders on the other. Interviews were to be conducted with two households per village and with six traders per market (two wholesalers, two retailers and two collectors), i.e. for a total of about 120 interviews. This goal was only partially reached, owing to the lack of collectors on the markets during the current lean season and because certain areas were cut off by the rain. A total of nearly 80 people on approximately 17 markets were interviewed. The data were entered in an MS Access data base and analyzed with SPSS.

10. **Analysis and reporting.** The results were analyzed during a WFP-ODD mission to Niger (18 – 29 July). The national consultant subsequently finalized his report, which formed the basis for the elaboration of the current market profile.[1].

[1] Please address any enquiries to : Geert.Beekhuis@wfp.org.

2.3 Presentation of results

11. The results of this study are scheduled to be presented to the WFP's main partners during a meeting in Niamey. This meeting will take place in late September, probably at the same time as the results of the CFSVA study.

3. Lack of reliable information

12. The market analysis and the drafting of this report have been hampered by a lack of reliable information on imports and exports of agricultural produce, on food prices in rural villages, on the dynamics of demand on agricultural markets and on supply and demand in neighboring countries. The analysis has also been handicapped by issues related to the quality of agricultural statistics.

13. Firstly, data from the Customs Office and from the Plant Protection Directorate (DPP) on cross-border trade are incomplete: substantial food flows are not recorded. Considering that a good knowledge of these flows is vital for any food crisis warning system, it is proposed to put into place a system for monitoring official and unofficial imports and exports, or to strengthen the existing system. On the other hand, such a system ought to be accompanied by an in-depth knowledge of the factors that determine supply and demand in Nigeria, Mali, Burkina Faso and other countries in this region, as this is currently lacking in Niger.

14. Secondly, as far as food prices are concerned, these are mainly recorded on the markets of the regional and departmental capitals by the Agricultural Markets Information System (AMIS), but prices paid/received by vulnerable groups in their villages are often unknown. In addition, subjects such as the integration of small rural markets with large markets, the level of competition of the marketing system in small rural markets, etc. have not been studied in a systematic manner. No records of price series over several years exist in these small rural markets, and this limits analytical work.

15. On the other hand, the entire question of how the demand for agricultural products behaves on these markets in the face of variations in prices and production remains to be explored. Present knowledge does not go beyond a static analysis of the relationships between rural populations and markets based on vulnerability studies.

16. Finally, a question arises concerning the quality of statistics on agricultural production, availability, consumption and demographics, especially if data are assessed in terms of absolute values. For example, the availability of cereals per capita was approximately 500 grammes per day during the last two food crises (2000 et 2004), and apparent consumption was estimated by the FAO/CILSS/WFP mission of 2004, on the basis of agricultural statistics, at 260 kg per person per year. These data do not provide clear warnings of an imminent food crisis.

C. SUPPLY AND DEMAND FOR THE MAIN AGRICULTURAL PRODUCTS

1. Agricultural production

1.1 Production systems

2. Agriculture is characterized by a great many different types of crops and production systems according to the natural potential of the different parts of the country. The diagrams in annex 1 show the different agro-ecological areas, farming systems and 'livelihood' areas.

3. In the northern part of the country, immense spaces with very low productivity are exploited using a pastoral and transhumant system. Though natural conditions make this very good pasture land, demographics have brought about a development of agriculture along the southern belt of this area, and a reduction of pasture space.

4. The rain-fed agricultural production area involves the following systems: i) the dune system; ii) the Eastern plains; and iii) the Western plateaux. The dune system mainly has a millet monoculture that adopts extensive methods, and this is characterized by low yields and insufficient production for households. The Eastern plains system comprises the high cereal production areas of Maradi and Zinder, and particularly the Southern belt of these regions are characterized by semi-intensive agricultural techniques (animal traction, fertilization, etc.), intercropping of cereals and cow peas and association of agriculture with livestock. The Western Plateaux system – mainly located in the Tillabéry and Dosso regions – also shows close ties between livestock holding and agriculture; wood collection also has an important role. The small, localized wetlands in this area are mainly used for market garden production.

5. Finally, irrigated and oasis production is practiced in several areas scattered around this territory, namely in the valleys of the Niger river, of the Goulbis (Maradi and Zinder), the Maggia and Tarka, the Komadougou and Lake Chad, as well as in the fossil valleys in the Dallols (Dosso region). Except for the large-scale hydro-agricultural systems in the river valley, agriculture in these areas is characterized by a family approach, on small plots of land. There are oases in Agadez and Mainé Soroa. All of these systems are based on the production of various crops, associated with livestock breeding in varying degrees.

1.2 Production areas

6. Annex 1 comprises various maps showing the main production areas. Though millet/sorghum (cf. map D) are produced in nearly all of the country's *départments*, the Maradi and Zinder regions account for approximately 40% of national production; production in the Agadez region, in the N'guigmi and Bouza *départements* is low. Like millet and sorghum, cow pea is grown in nearly all the *départements* with mainly agricultural and/or agro-pastoral activities. Groundnuts are grown mainly in the Southern belt of the Zinder and Maradi regions, as well as in the *département* of Madoua in the Tahoua region. The only significant maize and souchet production takes place in the Dakoro *département*, in the Maradi region. Rice is mainly produced in the river valley, in the Tillabéry region.

7. On the other hand, there are a variety of other types of intensively grown crops, such as onions in Agadez, Dosso, Zinder and Tahoua, capsicums in Diffa and Zinder and market garden produce crops in all of the Southern regions (Cf. maps E in appendix 1). A

sharp fall in production or in prices of these types of crops could cause serious consequences to the local population's food security.

8. To sum up, i) the main cereal production centre is in the Maradi and Zinder regions ; ii) commercial crop production is important in all the Southern areas of the country and in some rather isolated areas zones in Diffa and Agadez ; and iii) the inhabitants of the Tchintabaraden, Téra, Ouallam, Filingué, etc. *départements* have very few agricultural alternatives apart from millet and sorghum productions; in order to diversify their income and risks, the ought to focus on other activities such as livestock breeding.

1.3 Producers

9. Rain-fed farmers mainly cultivate millet, cow pea and sorghum on family-run farms whose average size is 5 ha with 6 farm workers. Income is low and very uncertain owing to the low intensity of production and unpredictable rainfall. Almost all farmers grow millet/sorghum for household consumption and, if natural conditions permit, commercial crops.

10. The millet/sorghum per capita cultivated area amounts to approximately 0.72 ha on average (1980-2004). In good years, this area increases to 0.8 ha and is down to 0.6 ha in years with bad weather conditions. There does not appear to be a tendency of the per capita surface to increase or decrease; apparently, the growth of the population is counterbalanced by the increase in the total millet/sorghum cultivated area. Further, it is sometimes suggested that a year of low production reduces producers' capacity for sowing and cultivating their fields in the following marketing year; nevertheless, the figures shown in table C1 do not warrant this conclusion.

11. Table C 1 shows millet/sorghum production per inhabitant. The 1980-2004 average is 253 kg; it was 254 during 1999-2004. In 2004, production was 218 kg per capita, while it was 195 kg in 2000, another low production year. Statistics thus show that there has been no tendency towards improved performance per capita, rather there has been a slight decline, whilst considerable variations accompany the vagaries of climate. In 2004, production per capita was 17% below the 1999-2003 average.

Table C 1: Population, production and total area per inhabitant for millet and sorghum

Year	Population	Millet + Sorghum			
		Cultivated areas (ha)	Prod. (tonnes)	Area per inhabitant Ha	Prod. per inhabitant Kg
1 980	5 578 000	3 840 490	1 730 780	0,7	310
1 981	5 763 000	4 070 568	1 635 492	0,7	284
1 982	5 954 000	4 218 384	1 651 279	0,7	277
1 983	6 151 000	4 242 140	1 653 760	0,7	269
1 984	6 355 000	4 128 179	1 007 538	0,6	159
Average (80-84)		**4 099 952**	**1 535 770**	**0,7**	**260**
1 985	6 565 000	4 310 931	1 774 113	0,7	270
1 986	6 783 000	4 348 597	1 743 559	0,6	257
1 987	7 008 000	4 359 029	1 362 777	0,6	194
1 988	7 240 000	4 995 768	2 326 505	0,7	321
1 989	7 480 000	5 094 042	1 754 605	0,7	235
Average (85-89)		**4 621 673**	**1 792 312**	**0,7**	**256**
1 990	7 728 000	6 942 899	2 045 960	0,9	265
1 991	7 967 568	6 456 771	2 314 991	0,8	291
1 992	8 214 563	7 519 314	2 171 693	0,9	264
1 993	8 469 214	6 099 128	1 714 310	0,7	202
1 994	8 731 760	6 950 251	2 368 538	0,8	271
Average (90-94)		**6 793 673**	**2 123 098**	**0,8**	**259**
1 995	9 002 444	7 164 356	2 034 983	0,8	226
1 996	9 286 395	7 138 358	2 172 213	0,8	234
1 997	9 574 274	6 386 922	1 641 530	0,7	171
1 998	9 871 071	7 607 398	2 894 013	0,8	293
1 999	10 177 080	7 449 871	2 772 346	0,7	272
Average (95-99)		**7 149 381**	**2 303 017**	**0,7**	**239**
2 000	10 492 569	7 306 951	2 049 890	0,7	195
2 001	11 060 291	7 835 456	3 022 350	0,7	273
2 002	11 403 160	7 816 590	3 236 927	0,7	284
2 003	11 756 658	8 041 222	3 502 464	0,7	298
2 004	12 121 114	7 823 260	2 637 242	0,6	218
Average (00-04)		**7 764 696**	**2 889 775**	**0,7**	**254**
Average (80-04)		**6 085 875**	**2 128 794**	**0,72**	**253**

Source: Collection and analysis of secondary information: report on food security and vulnerability in Niger, WFP, July 2005.

12. Small producers from Niger mainly adopt a production strategy assuring millet household consumption and allows – if weather and natural conditions are favorable – the sale of commercial produce, especially cow pea, capsicum, onions and even sorghum.

1.4 Production

13. National cereals production[2] increased from 1.8 million MT in 1985 to 2.7 million MT in 2004, i.e. by 48% in 20 years or 2% per year (cumulative interest), averaging 2.3 million MT. It mainly comprises millet and sorghum (78% and 19%). This increase is the result of an increase in cultivated areas (+ 84%) which has compensated the negative effects

[2] Millet, sorghum, maize and rice.

of the slight decline in yields. Total production is still highly variable, at times increasing by 55% compared with the 20-year average, at times falling by 38% compared with the 20-year average. The role of international trade and of stocks is plainly crucial.

14. In 2004, an acute food crisis year, cereals production exceeded the 20- and 15-year averages by 19% and 11%, but was 9% less than the 5-year average (-11% for millet). Even though this harvest does not appear bad, regional, but above all départmental variations are shocking (Cfr. appendix 2): for example, in the Zinder region, the Matemeye harvest was 55% lower than the 15-year average whilst Tanout's harvest was 43% lower. Other departments suffering from significant falls in production (between -100% and -15%) are Illéla, Tahoua, Keita and Tchintabaraden in the Tahoua, Dakoro in the Maradi region, Zinder and all the *départements* in the Agadez and Diffa regions. In principle, the marketing system will ensure that excess production will be 'distributed' in the deficit *départements*. Nevertheless, the impact on purchasing power can be very significant for populations that depend on cereal production as a means of subsistence.

15. The following question may be posed: are the considerable variations by *département* the norm during good and bad years, or can they function as indicators for a bad year? Taking 2001 as an example, which was a 'record' production year at the time, production exceeded the 15- and 5-year averages by as much as 52% and 61% (data over 20 years are not available); only three *départements* were affected by a fall in production. On the contrary, in 2000, a food crisis year, national production was more than 4% and 11% above the 15- and 5-year averages respectively, whilst 22 *départements* suffered falls in millet and sorghum production (Cfr. table C 2). Neither the national nor the regional production indicators appear to be very useful for sounding the alarm; the number of *départements* suffering from falls in production is a better indicator.

Table C 2: Number of *départements* with a fall in millet/sorghum production \ a

Variation compared with the average\ b	**Number in 2000 (crisis)**	**Number in 2001 (good year)**	**Number in 2004 (crisis)**
-100% : - 50%	4	0	5
- 50% : - 25%	9	2	3
- 25% : 0%	9	1	11
> 0%	13	31	14

\ a: Except for the *département* of Bilma and the Niamey townships.
\ b: 1990-1999 average for 2000, 1990-2000 for 2001 and 1990-2004 for 2004.
Source: Mission calculations, based on Ministry of Agriculture statistics.

16. This phenomenon of a food crisis during a good / average year of national production is often the result of a reduction in purchasing power owing to loss of agricultural income in certain areas and to a price increase. However, there are other important elements in the case of Niger. Firstly, Niger as a country lacks self-sufficiency in cereals and national availability is dependent upon imports. Secondly, a good national availability of millet/sorghum does not necessarily entail good availability at departmental level or even at the level of distant villages: i) there are villages that cannot be reached – or are difficult to reach – by traders, especially during the lean season, because of the rains, of insecurity and of the poor state of roads; and ii) weak demand in rural villages does not attract a large number of traders. On the other hand, a fall in agricultural production in a certain area can give rise to a completely new demand (producers who are normally self-sufficient demand food supplies) which is not always completely met by supply from traders.

1.5 Yields

17. Millet and sorghum yields (taken together) are characterized by many ups and downs: 375 kg/ha on average between 1980-1984, 388 kg / ha between 1985-1989, 313 kg / ha between 1990 – 1994, 322 kg / ha between 1995-1999 and 372 kg / ha between 2000-2004. A slight 4% decrease is seen between 2000-2004 and 1980-1984. This is the result of the reduction in fallow land, the extension of cropland by the clearance of marginal land and little fertilization, resulting in lower soil fertility and wind and water erosion.

1.6 The trend in availability per inhabitant

18. Cereal availability is defined as total production minus losses and production set aside for sowing. Total availability was 230 kg per inhabitant on average during the 1999-2003 period, whilst in 2004 it went down to 189 kg. Millet clearly is the basis of cereals availability. It seems that the fall in availability in 2004 mainly involved millet: a 38 kg reduction compared to the average, i.e. by 21%.

Table C 3: Availability of millet, sorghum, maize and rice per inhabitant

Year	Millet (kg)	Sorghum (kg)	Maize(kg)	Rice (kg)	Total (kg)
1999	192	40	1	5	238
2000	136	30	-	5	171
2001	181	51	-	4	237
2002	191	50	1	5	247
2003	198	55	-	3	257
99-03 average	**180**	**45**	**0**	**4**	**230**
2004	142	42	-	4	189

Source : Based on: 'Collection and analysis of secondary information: report on food security and vulnerability in Niger, WFP, July 2005' ; the data have been revised in order to harmonise them with demographic figures (Cfr. table C1).

19. Availability varies considerably from one region to another: from more than 270 kg in the Zinder and Maradi regions to less than 30 kg in Agadez. Figures for 2004 show that availability in the Dosso region was stable, that it fell by 90% in Diffa and Agadez, whilst in other regions it decreased by approximately 20-30%.

Table C 4: Total availability by region

Year	Agadez	Diffa	Dosso	Maradi	Tahoua	Tillabéry	Zinder
1999	67	199	268	242	270	187	305
2000	38	21	191	209	199	114	220
2001	15	169	278	264	260	251	298
2002	5	180	302	313	249	260	288
2003	5	143	265	326	283	263	269
99-03 average	**26**	**142**	**261**	**271**	**252**	**215**	**276**
2004	2	31	266	221	179	167	219
2004 (%)	-92%	-78%	2%	-18%	-29%	-22%	-21%

Source: Collection and analysis of secondary information: report on food security and vulnerability in Niger, WFP, July 2005.

20. Gross national availability does not seem unsatisfactory in absolute terms. Considering that recorded exports are very low, an average 230 kg / inhabitant allows the population an acceptable degree of nourishment, despite low imports. Also, it must be pointed out that during a crisis year, for example in 2000 or in 2004, the average availability per inhabitant is approximately 500 g per day, which is a satisfactory level of human consumption. Thus, why the precariousness of food supplies during bad years, with prices

shooting upwards as a result ?[3] Are there considerable export quantities that go unrecorded[4] ? Do the statistics over-estimate availability?

21. A rapid analysis of the relationships between the average prices of millet (during the month of March) and total and per-inhabitant production levels (during the previous year) show that prices only partly vary in the opposite direction of the level of production. Other important factors having a decisive influence on prices certainly exist, such as prices in neighboring countries, the FCFA/Naira exchange rate, tax and commercial regulations and agricultural production in neighboring countries.

22. It also appears to follow that a price rise in a certain year leads to an increase in production for those types of agricultural products. Actually, however, price variations do not seem to be a decisive factor for cereal production levels in the subsequent year. These analyses, based on approximate figures, will be looked into more deeply, using more sophisticated methods, in order to take other factors into consideration.

2. Imports

2.1. Introduction

23. Given that Niger often has a cereals deficit (during the 90s, for example, only two years had a positive gross balance in cereals), commercial imports and imported food aid play a decisive role in achieving national food security. For example, in 2001, even though millet imports accounted for only 5% of national production, they made up for over 50% of the cereals deficit. Also, considering that only a fraction of the national harvest is marketed, imports of basic cereals determine prices and availability on markets in a significant manner, and thus have a key impact on matters connected with accessibility.

24. Unfortunately, the quality of data on cross-border flows cannot be taken for granted, especially for millet and sorghum : i) customs offices do not gather systematic information on most of the cereals, as these have been exempted from duties/taxes since March of this year; ii) the DPP does not gather information by country but by cereal ; and iii) there are considerable unofficial cross-border flows. This lack of reliability mainly leads to under-estimations of cross-border flows..

25. The table below looks at imports since 1998 according to the DPP (details can be found in appendix 3). Average cereal imports between 1998 and 2004 are 145 000 tonnes, as opposed to 78 000 tonnes between 2003 and 2004. The highest levels in 1998, 2000 and 2001 are the result of the decrease in production in late 1997 and 2000 : imports generally act as a shock absorber by considerably increasing in the year after a bad harvest. By contrast, after low production in 2004 (October harvest), there does not seem to have been a strong increase during the last three months of 2004, nor in early 2005, as will be discussed in the following section.

[3] Cfr. Interim Market Analysis Report, WFP, August 2005.

[4] Exports towards Nigeria were noted after the 2000/2001 harvest (AMIS). Several resource persons suggested that this phenomenon also took place after the 2004 harvest, but neither the export statistics nor SIMA, nor the 80 traders interviewed have confirmed this ‘hypothesis’.

Table C 5: Yearly cereals imports \ a

	Jan-Dec						average	
	1,998	**1,999**	**2,000**	**2,001**	**2,003**	**2,004**	**1998-2004**	**2003-2004**
Millet	27,731	4,056	84,004	81,657	4,530	6,699	29,811	5,615
ɒrghum	13,363	1,469	15,872	19,923	950	715	7,470	833
Maize	88,262	56,103	85,116	80,727	12,184	19,232	48,803	15,708
S total	***129,356***	***61,628***	***184,992***	***182,307***	***17,664***	***26,646***	***86,085***	***22,155***
Rice	91,497	79,035	62,904	70,041	74,884	37,430	59,399	56,157
Total	**220,853**	**140,663**	**247,897**	**252,349**	**92,548**	**64,076**	**145,484**	**78,312**

\ a: Not available.
Source: DPP, Ministry of Agriculture

26. A look at where cereal imports originate shows the dominating role of Nigeria (Cfr. table below) : 75-85% of millet/sorghum imports and 35% of maize on average come from Nigeria, whilst Benin supplied 20% of maize imports and Mali-Burkina Faso supplied (together) 23% of millet, 7% of sorghum and 44% of maize[5]. Traditionally, Nigeria and Benin are Niger's main cereals suppliers but, for a certain time now, this supply does not seem satisfactory, owing to the vagaries of the weather, of national agricultural policy, etc. Because of this and because of integration within the UEMOA, commerce with Burkina Faso and Mali seems to become more and more important.

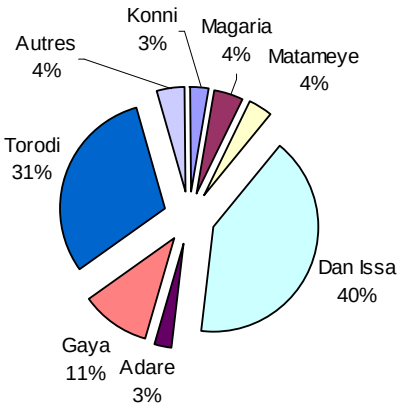
Table C 6: Cereals imports by origin: average of the last 5 marketing years

Tonnes	**Nigeria**	**Benin**	**Burkina Faso / Mali**	**Total**
Millet	21,362	186	6,336	27,884
	77%	*1%*	*23%*	*100%*
Sorghum	5,057	413	434	5,904
	86%	*7%*	*7%*	*100%*
Maize	13,410	7,256	16,480	37,146
	36%	*20%*	*44%*	*100%*
Total	39,830	7,855	23,252	70,936
	56%	*11%*	*33%*	*100%*

Source : DPP, Ministry of Agriculture

27. The chart below shows the average percentages of imported cereals[6] by DPP office (Cfr. appendix 3 for details). 'Dan Issa' – for trade with Nigeria – and 'Torodi' for trade with Burkina Faso and Mali, are the most important markets. The latter market is the most important for maize, while Dan Issa is the most important for millet.

Chart C. 1 Cereals imports by DPP office



Source: DPP, Ministry of Agriculture

5 The figures for Mali-Burkina Faso also comprise imports from coastal countries such as Ghana, Togo and Ivory Coast.

6 Millet, sorghum and maize (rice was not available).

2.2. Imports since the last harvest

28. During the current marketing year, imports[7] have been very low : they are only 35% of the average of the last 5 marketing years (1999 – 2004), i.e. 25 000 tonnes instead of the average 71 000 tonnes over the last 5 marketing years (Cfr. table below). During the previous bad marketing year (2000/2001), imports were 157 000 tonnes, i.e. more than 100% above the average. The current marketing year has witnessed, however, a fall in imports for all the main cereals.

29. Even though these figures only capture a part of cross-border flows, it is clear that imports in early 2005 have not been able to fill the gap resulting from the fall in production; even worse is the fact that the decline in imports has aggravated the food crisis caused by the decline in agricultural production.

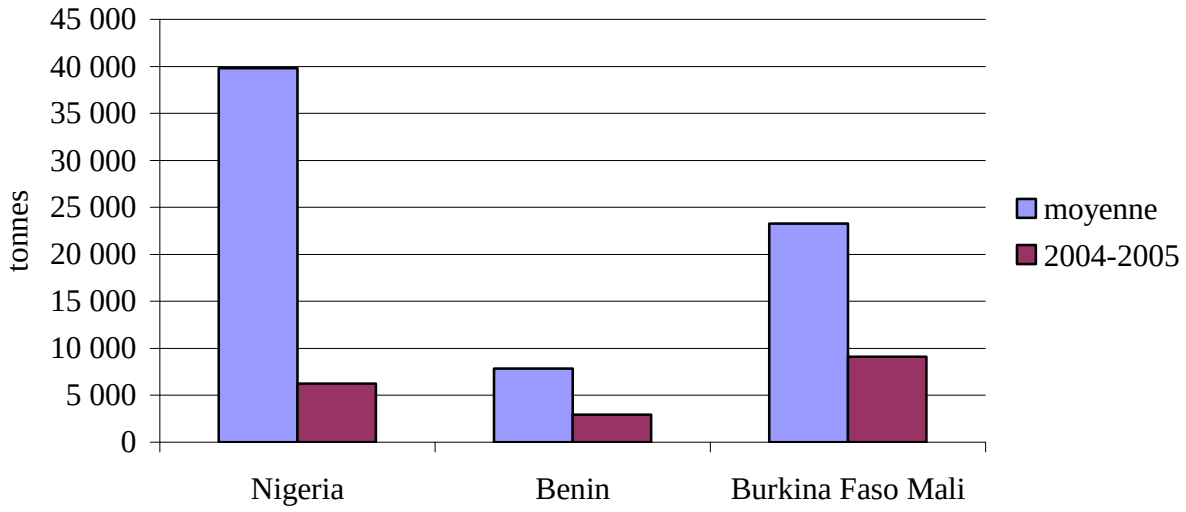
Table C 7: Cereals imports by marketing year (October – June)

	Average	**2000-2001**	**2004-2005**	**% of the average**	**% of 2000/1**
Millet	27,884	79,190	12,016	43%	15%
Sorghum	5,904	16,459	695	12%	4%
Maize	37,146	61,135	12,016	32%	20%
Total	***70,934***	***156,784***	***24,728***	***35%***	***16%***

Source : DPP, Ministry of Agriculture

30. The decline in cereals imports is the result of lower imports by all the chief trade 'partner' countries. As shown in the Chart below, imports in Nigeria, Benin Mali/Burkina Faso, are down. They account for only 16%, 37% and 39% of the average of the last 5 marketing years.

Chart C. 2 Estimate of cereals imports by country of origin



Source: DPP, Ministry of Agriculture

[7] Millet, sorghum and maize.

2.3. Key factors in cereals trade with Nigeria

31. According to official sources, Niger imports millet, maize and sorghum from Nigeria and exports cow pea, sesame, souchet, vouandzou and livestock to Nigeria. It is also likely that in a bad harvest year in Nigeria, Nigerian traders supply themselves with millet and sorghum from Niger. There are no figures available on this phenomenon, but exports of cereals towards Nigeria appear considerable after the 2001 harvest[8].

32. The key factors in the evolution of trade between Nigeria and Niger can be classified as follows : i) structural factors such as the common 1600 km border, the fact that both countries' populations belong to the same culture (haoussa), Nigeria's economic power and the existence of a well-established network of Nigerian traders in Niger ; and ii) factors depending upon the cyclical situation, such as political developments, changes to tax and commercial regulations, unpredictable weather conditions leading to variations in agricultural production, the fluctuations of exchange rates and the price trends in both countries. Transportation costs are another key factor that has both a structural and a short-term dimension[9].

33. These factors determine to a great extent whether Nigeria is a supplier that helps to ensure the availability of agricultural products in Niger or whether it is a net purchaser of agricultural products, with the potential for increasing tensions on Niger markets. The chief factors are discussed below.

34. **The price of cereals in Nigeria and in Niger.** The differences between millet and sorghum prices on cross-border markets in Nigeria and in Niger are minimal. Millet prices on the Maradi markets are generally lower that millet prices on the Jibia market from October to January, whilst the opposite is true from February to August. A detailed analysis of prices and margins is given in chapter D 6. One of the main conclusions is that this pattern did not apply in 2004/2005. Prices in Nigeria were higher for the entire marketing year, thus limiting traders' interest in purchasing supplies in Nigeria.

35. **Exchange rates.** Traders involved in cross-border trade prefer to change their FCFAs and nairas on the parallel exchange market rather than on the official one. A study of exchange rate fluctuations since 2000 on the Jibia[10] parallet market, one of the most important cross-border markets for the cereal trade, shows that: i) the nominal FCFA / Naira rate appreciated by 39% from 2000 to June 2005 ; this could be favourable to exports from Nigeria to Niger and unfavourable for exports from Niger to Nigeria ; ii) cumulative inflation was much higher in Nigeria than in Niger : on the basis of the real exchange rate, the FCFA depreciated by 24% (2000-2004); this could be unfavourable to exports from Nigeria to Niger and favourable to exports from Niger to Nigeria ; and iii) during the last three months of the year, meaning the months immediately following the harvest, the nominal value of the FCFA compared with the naira is generally the strongest; this does not favour exports of the Niger harvest to Nigeria (the situation in 2004 was identical). The chief conclusion is that, all else being equal, exchange rate fluctuations from 2000 to 2004 make it less attractive by 24% for a Nigerian exporter to sell a sack of millet in Niger and to change his revenues into naira on the

8 European Union, Mission Report 'The Rise in Prices in Niger and in Nigeria', 2001.

9 Transport costs for a 100 kg sack to Niamey FCFA 1500-1750 for Nigeria, FCFA 3250-3500 for Mali and FCFA 1000 for the Maradi region. Transporting cereals from the ports of Cotonou and Lomé would cost from FCFA 5500 to 9600 and from FCFA 7400 to 11200 respectively, according to the country's different regions.

10 Source des données : SIMA.

parallel market. There is no evidence to support the statement that cereal traders can benefit from intra-annual exchange rate fluctuations.

36. **Variations in agricultural production in Nigeria.** Variations in cereals production have a very great influence on the food security situation in Niger. Unfortunately, there is not much information available on production on the other side of the border. The FAO has published statistics on millet and sorghum production in 2004, but the quality of these statistics is questionable; production levels were identical in 2004 and in 2003 (www.fao.org/faostat).

37. **Tax and commercial regulations.** In Niger, taxes on millet, sorghum, maize, wheat and rice exports are officially set at 3% (since 2000). There is no cereals exports promotion policy; rather, the opposite would appear to be true. Tariffs levied on imports pursuant to law No 2000-003 of May 2, 2000 are summed up in table C 8.

Table C 8: Tariffs levied on imported products in % (before March 11, 2005)

Taxes	Millet	Sorghum	Maize	Wheat	Rice
Customs duties	5	5	5	5	10
Statistics fee	1	1	1	1	1
Value added tax	Exempt	Exempt	Exempt	Exempt	19
CEDEAO Tax	1	1	1	1	1
UEMOA Tax	1	1	1	1	1
Fee for tax checks \ a	1	1	1	1	1
Advance on industrial and commercial benefits \ b	0-4-7	0-4-7	0-4-7	0-4-7	0-4-7

\ a: Only for companies with turnover > 2 million FCFA

\ b: Depending on turnover and on the presence of a tax identification number.

Source: Official UEMOA bulletin N° 38 : Tariff and statistical nomenclature of the UEMOA Common external tariff / Nov. 2002 : Customs Investigation Services

38. The amended 2005 financial law (2005-1 of January 4, 2005) introduced a VAT on milk, milk cream, sugar and wheat flour. Other changes were also included in this law which, among others, has increased taxes to be paid on water and electricity. By contrast, these tax changes have not had a direct effect on the prices of millet, sorghum, maize and rice.

39. Following the bad agricultural and pastoral marketing year, which has meant a food shortage for humans and livestock, the Government has decided to suspend levying of duties and taxes on the above-mentioned products, except for rice (circular N° 230/MEF/DGD/DRRI of 11/03/2005). This suspension has made cereals exports to Niger more attractive. There is therefore no evidence that changes in tax legislation have had direct effects on the price of basic cereals. Nevertheless, the wave of popular protest that followed the changes in taxation perhaps created a climate that was conducive to the rise in prices.

40. It is nevertheless clear that the government's normal policy, apart, therefore, from this crisis year, makes cereals more expensive for consumers. The policy of taxing basic cereals with a 5% customs duty and rice with a 28% rate (customs duties plus VAT) increases cereal prices.

41. As far as Nigeria's trade policies are concerned, these seem to have had a crucial impact on Niger's imports. The policy of promoting the agricultural products processing industry and national agricultural production has caused an increase in cereal prices in

Nigeria, thus slowing exports to Niger. Also, the Government of Nigeria has reinforced its border controls in order to reduce unofficial exports and imports[11].

2.4. Key factors of cereals trade with Benin

42. Cross-border flows between Niger and Benin mainly concern maize to Niger and cow pea to Benin. Generally, Benin is more than self-sufficient in maize. The crossroads of this trade is the town of Malanville which is home to an important market. Traders from Niger are well-established in Malanville and are involved in trade towards Niger ; traders from Benin play a limited roled across their country's border. The key factors for trade between these two countries are identical to those concerning Nigeria, except for the exchange rate which does not affect these two countries within the FCFA zone. Taxes on imports are also the same as those shown in table C 8.

43. Agricultural production in Benin was very good in the 2004/2005 marketing year: it was 60% above the average of the 5 previous years : 1.6 million tonnes as opposed to 1.0 million tonnes[12]. Cereal prices in Benin after the harvest could not be ascertained by the mission. Nevertheless, the price of maize was 92 FCFA on average in 2003, less than the price in Niger (source : ONASA, Benin).

2.5. Key factors of cereals trade with Mali and Burkina Faso

44. The factors are the same as in the case of Benin. Maize and millet are the chief cereals imported from Mali and Burkina Faso to Niger.

45. Cereals production in Mali reached 3.0 million tonnes, slightly more than the 5-year average of 2.8 million MT. By contrast, cereals production in Burkina Faso is 16 per cent lower on average, i.e. 3.1 million tonnes instead of 3.6 million tonnes, especially because of a sharp fall of millet production (-26%)[13].

46. Since December 2004, millet consumer prices are higher than the average of the last 5 marketing years in Mali. Compared to this average, the increase reached 6 per cent, i.e. by 9 FCFAs per kg, at the beginning of the marketing year; prices have been approximately 15 per cent higher from February 2005 onwards[14]. The joint OMA/PROMISAM mission report of April 2005 suggested as the main causes : i) the substantial presence of neighbouring traders who have come to purchase cereals (Senegal, Mauritania, Niger and Burkina Faso) ; and ii) import taxes on maize from the Northern Ivory Coast which have hit importers this year. On the other hand, Mali also applies a VAT on rice.

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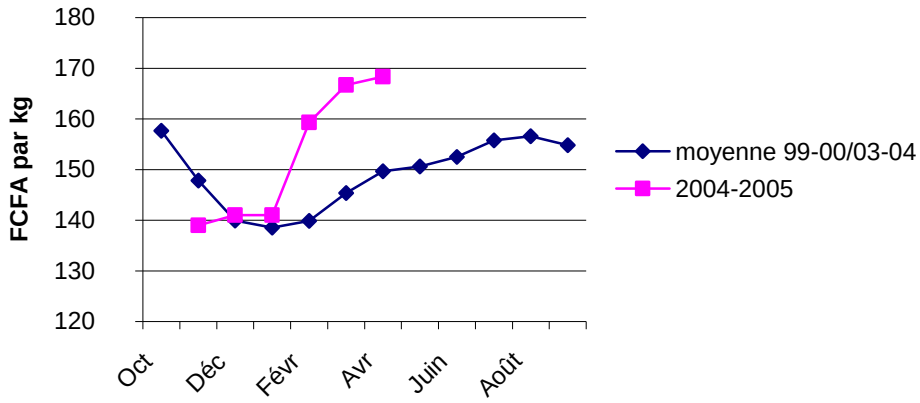
11 See also: FAO, GIEWS Global Watch, Endogenous and Regional Factors Underlying Niger's Food Crisis, August 2005.

12 FAO, 'Food supply situation and crop prospects in Sub-Saharan Africa', April 2005.

13 FAO, 'Food supply situation and crop prospects in Sub-Saharan Africa', April 2005.

14 Source : Agricultural market observatory, joing OMA/PROMISAM exploratory mission on cereals markets from 8 to 12 April 2005.

Chart C 3 : Average consumer prices for millet in Mali \ a



\ a : Average of the Kayes, Ségou and Mopti markets.
Source: Agricultural markets observatory, joint OMA/PROMISAM exploratory mission on cereals markets from 8 to12 April 2005.

2.6. Elasticity of imports

47. Considering that sub-regional markets seem well integrated, imports are expected to be highly sensitive to price variations. During this marketing year, however, imports are declining, while cereals prices have greatly increased in Niger. This is the result of the price rise on markets in neighbouring countries such as Nigeria and Mali. Thus, a study of the elasticity ought to be based on the relative prices of cereals in the different countries. These relative prices are determined by production conditions, imports, demand from institutions and traders, as well as by commercial and tax policies, in all the countries in this sub-region. In other words, it is essential to analyse supply and demand in all these countries in order to be able to express a a view on the expected amount of Niger's imports.

2.7. Conclusions : causes of the reduction in imports in 2004/2005

48. The reasons for the reduction of imports are the following:

- High prices on Northern Nigerian markets, which are Niger's main external sources of cereal supplies ;
- The ban on cereals leaving Burkina Faso imposed by the Government of Burkina Faso; and
- High prices on Malien markets, which discouraged imports towards Niger.

49. Why were prices so high on Northern Nigerian markets? Many suggestions have been put forward[15] to explain this phenomenon : i) the Nigerian Government's policy for the promotion of the agricultural products processing industry; ii) improved border surveillance aimed at reducing unofficial exports ; iii) the ban on rice imports ; and iv) low production during the 2004/2005 marketing year. Nevertheless, it must be admitted that the Government of Niger and its partners, have only a superficial knowledge of price and production

15 For example: FAO, GIEWS Global Watch, Endogenous and Regional Factors Underlying Niger's Food Crisis, August 2005; and FEWS Net, oral report on the mission to Northern Nigeria in August 2005.

fluctuations in Northern Nigeria. This is the reason why it would be desirable to include Northern Nigeria in the assessment of the harvest in October of each year.

50. Regarding the price rise in Mali, it must be said that during the 2004-2005 marketing year, Mali showed a net cereals surplus, but its market was invaded from the start of the marketing year by Mauritanian, Senegalese and Niger traders. This external demand was also supplemented by a no less substantial internal demand. These different demands, in combination with the entry into force of an import tax on maize from the Ivory Coast, have rapidly pushed prices upwards on Malien markets[16].

3. Food aid

51. 29 000 MT of food aid are distributed annually in Niger, composed of rice (11 000 MT), wheat (4 000 MT) and other cereals (14 000 MT). These aids are managed by the Dispositif National de Prévention et de Gestion des Crises Alimentaires (DNPGCA), or directly by the partner organizations.

52. The Government and its partners, together in the DNPGCA initially stressed support through cereal banks, through the 'food for work' schemes, the targeted distribution by nutritional centres and subsidized sales. The Government has sold approximately 40 000 tonnes at subsidised prices since the start of the marketing year.

53. The strategy of the WFP Development Programme rests on three pillars : i) the creation of productive assets through the support of cereals banks, a 'food for work' scheme and a 'food for training' constituent ; ii) support to basic education through school meals and an annual distribution of a dry ration ; and iii) support to the fight against HIV/AIDS and malnutrition through distribution of cooked meals. The Development Programme's strategy foresees the annual distribution of 14 000 MT; 9 656 MT have already been distributed during the first six months of 2005, which is more than had been foreseen, because of the critical food insecurity situation.

54. In addition, the emergency operation strategy initially consists in reinforcing first-pillar activities, 'creation of productive assets'. During the first six months of 2005, the WFP has not carried out any general free distributions. The tonnage foreseen for the emergency operation was 6 500 MT at the outset, but a budget revision (number 7) brought the total to 73 000 MT. The intervention strategy was also revised : i) general free-food distributions, ii) food for work ; and iii) supplementary distribution for children (< 5 years old) and pregnant and breast-feeding women. The last general distributions are expected to be carried out before the 2005 harvest. Only in the event of a bad harvest, the contingency plan foresees a general distribution for approximately 0,5 million people after the harvest. A market monitoring system has been set up to assess the possible impact of these food distributions.

55. The emergency activities of other partners are manifold and change quickly. Their quantities, procedures and market impact ought to be further assessed.

[16] Source : Agricultural market observatory, join OMA/PROMISAM exploratory mission on cereal markets from 8 to 12 April 2005.

4. Demand

4.1 Consumption

56. A part of the consumers' food supply needs is satisfied through agricultural markets. Though it is clear that this part is less important than the consumption its own harvest by rural households, consumer demand expressed on markets is not well known. For example, the sensitivity of this demand in relation to price and supply variations has not been studied systematically.

57. It is likely that during the current marketing year the market demand for food supplies has increased, owing to the low smallholding production available for own household consumption.

58. The CFSVA assessed cereal consumption and purchases, food income and expenses. However, this analysis remains static (see the CFSVA for the results). The CFSVA's main conclusions concerning access to food are : i) 14 per cent of households have 'very low' access to food ; they depend on the market (42 per cent of food consumption is purchased) and on food aid (39 per cent), while their auto-consumption accounts for only 2 per cent of food consumption; ii) 49 per cent of households have 'low' access to food : they are characterised by being highly dependent on the market, i.e. by 90%, for their food supply; iii) a total 30 per cent of households have average access; they allot 52% of their expenses to food and purchase 61 per cent of their food consumption ; and iv) 7 per cent of households have good access to food.

59. The general average norm for cereal consumption is 240 kg per person in Niger. This is the result of the weighting of the 200 kg and 250 kg per person norms for nomads and sedentary populations respectively, and of the demographic situation. The government uses this norm for calculating cereal deficits. The FAO/CILSS/PAM 2004 mission adopted a norm of 239 kg of dry cereals and 20,5 kg of wheat and rice, which corresponds to the so-called 'apparent consumption'.

4.2 Institutional demand

60. The government bought and received 12 750 MT of millet/sorghum in February-April 2005, whilst two other contracts for 30 000 MT of millet/sorghum (April-May 2005) were signed, but very little has been received.

61. As far as WFP purchases are concerned, a total 5 800 MT of cereals were purchased in Niger after the October 2004 harvest, of which 3 800 MT of millet in October and 2 000 MT of imported rice in July 2005. There has been only one purchase on the Nigerian market: 522 MT of sorghum in April 2005 ; two other transactions have been carried out with the Government of Nigeria, for a total 10 000 MT of sorghum from the government's strategic stocks.

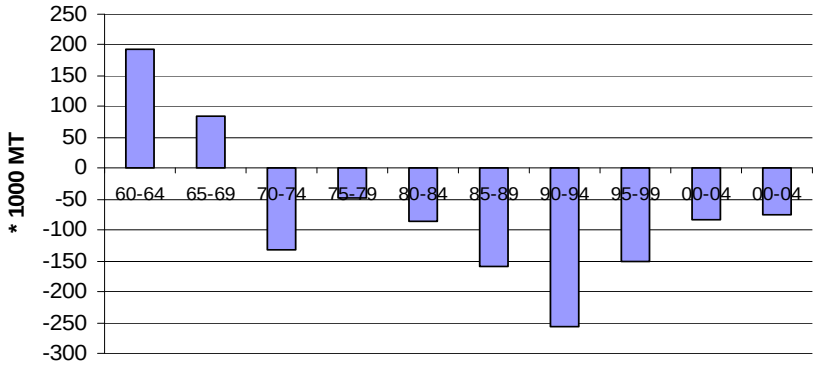
4.3 Exports

62. With regard to exports, there are no reliable data. For example, DPP data show 120 MT of exports in 2003. If there are cereal exports, they go unnoticed by the DPP. Given the market integration in this sub-region and the sometimes attractive prices on external markets, it would seem logical that food supply flows be directed towards neighbouring countries, especially Nigeria.

5. Cereal balance

63. The gross cereals balance, net production minus consumption, is negative two times out of three. Since 1960, 23 years have been deficit years, and since 1990, 10 years have been deficit years. The chart below shows us the 5-year averages since 1960. The balance was positive in the 1960s, then became highly negative from 1970 to 1990, and a little less negative since 2000.

Chart C 4: Gross cereals balance



Source: Ministry of Agriculture

64. The prices – gross cereals balance relationship is not obvious. From a logical standpoint, a cereal balance deficit will lead to an increase in prices in the post-harvest period (the following year) which will attract imports to fill the gap. If this mechanism works properly, prices will reach a level which will cover the additional costs of imports. A look at the prices of millet and at the gross cereals balances shows that prices rise in a post-deficit year as expected, but not always. It seems difficult to draw any conclusions for years in which deficits and/or surpluses are slight. On the contrary, if the deficit is considerable, price rises are generally observed in the following year.

65. Structurally speaking, the fact that Niger is not self-sufficient has caused an increase in food supply prices, which is one of the reasons for the rise in real prices, especially from '95-'99 (Cfr. chapter E).

6. Conclusions

66. It is clear that there has been a cereals supply-side shock owing to the decrease in production and to the sharp fall in imports. The decrease in production is the result of drought and the desert locust invasion which had an impact on an already fragile production system. Low imports have worsened rather than improved the situation on the supply side, mainly because of high cereal prices in the sub-region.

67. Given that the rise in prices has not been able to attract an influx of food supplies from other countries, one can conclude that the marketing system in this sub-region does not ensure a good continuous availability of food supplies at an affordable price. The reasons for this include a lack of supply in the sub-region, high transport costs, a weak trade financing system and commercial and tax procedures that create obstacles to arbitrage, in space and in time, and consequently to a good availability of food supplies. These issues will be analysed in chapter D.

68. As regards demand, one ought to distinguish between demand satisfied by family reserves and market demand. The latter category comprises internal and external demand. Consumer demand on the national market would appear to increase substantially following a reduction in national production. It is also possible that increased tension on markets is caused by an increase in external demand, but no evidence is available.

7. Checklists

6.1 Rapid assessment of food security

69. Within a future EFSA framework, the 'supply and demand' constituent will involve a general updating of this chapter. The team will collect agricultural statistics for the principal cereals from the Office for Statistics of the Ministry responsible for agriculture, and statistics on imports and exports at the Office for Plant Protection within the same Ministry. If the government, with the support of the European Union, brings forward the implementation of the system for monitoring cross-border trade flows, this information will be indispensable. Also, information on institutional purchases and on distributed food aid ought to be collected at the level of the Early Warning System and of the food crisis Management Unit and its partners.

70. Particular attention ought to be paid to imports and exports. Data will be analysed by DPP office, by agricultural product, by country of origin and/or of destination and by month. The trends will be explained by key factors (Cfr. section 2) such as prices, commercial and tax policy and the FCFA/Naira exchange rate.

6.2 Regular monitoring of supply and demand

71. Only two analyses are necessary for this type of monitoring :

i) analysis of monthly import / export trends ; and
ii) analysis of the outcome of sample site monitoring as proposed in chapter A.

D. MARKETS AND MARKETING CHANNELS[17]

1. Typology of cereal markets

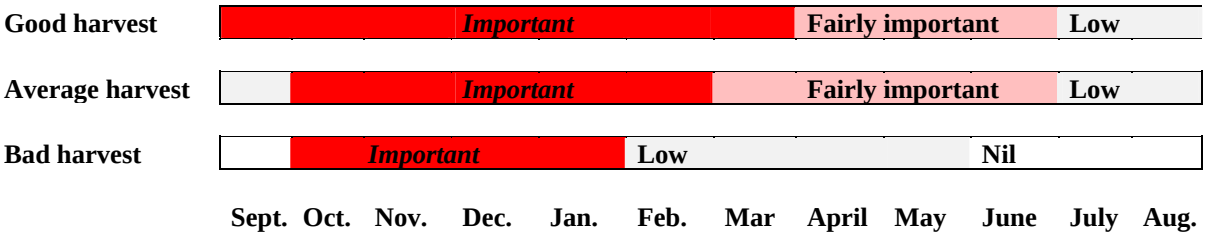
1.1 Introduction

2. Cereal markets can be classified into various categories according to the predominant marketing stage and to their geographical situation: collector markets, wholesale markets, consumer markets and cross-border markets. Graph A below and table A in appendix 4 show the classification of markets during a normal year. This classification varies according to seasons and marketing years.

1.2 Collector markets

3. These markets, which are often weekly, are located in production areas ; their main players are producers and collectors. Supply is essentially the result of local production and is strongly affected by seasonal factors, according to the harvesting period, to the pre-transition and lean season and according to the outcome of the agricultural marketing year.

Table D 1: Seasonal characteristics of the collect of cereal on markets



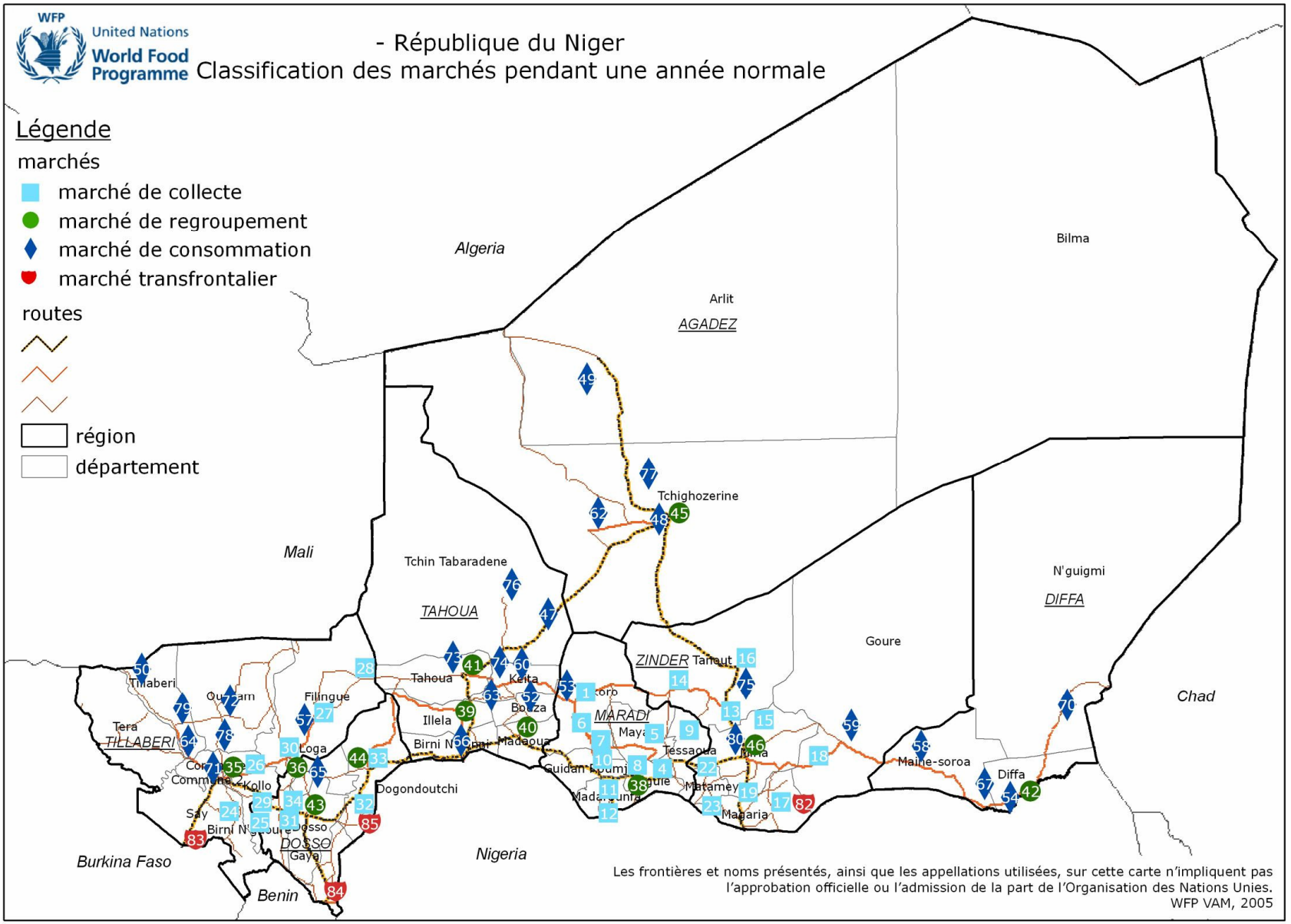
4. Collector markets are mainly situated in the Zinder and Maradi regions, and to a lesser extent, in the area south of the Tillabéry and Dosso regions. The quantity of cereals collected in a day varies from one market to another. On the large Maradi and Zinder collector markets, during a normal agricultural marketing year, the amount of millet collected in a single market day can reach more than 100 tonnes. The cattle-drawn carts and, at times, the "pickup" vehicles are the chief means of transport used by producers on the collector markets. Table D 2 gives an indication of the quantity available in a single market day of a normal agricultural marketing year.

[17] This chapter is based on the results of July 2005 surveys on traders and on existing studies (presented in the chapter on ‘methodology’).

Table D 2: Agricultural produce in MT collected in 1 market day during the collection period

Regions	Markets	Millet	Sorghum	Cow pea
Dosso	Fadama/Dogon-Doutchi	40		
	Fabigui/Boboye	50		
	Doutchi	60		
Maradi	Aguié	80	Np	5
	Gararé/Tessaoua	150	15	180
	Koona/Tessaou	12	5	10
	Mayahi	100	10	250
	Sabon-machi/Dakoro	15	2	20
	Tchadoua	150	Ns	50
	Tessaoua	50	20	150

Source: AMIS, November 1999; ns: not specified



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WFP VAM, 2005

1.3 Wholesale markets

5. Wholesale markets can be found more or less all over the country, often near large towns or the border. These markets mainly group products from collector markets and/or imports before they are transferred to consumer markets. Their distinguishing feature is the existence of warehousing and/or transit facilities. The seasonal character of supply is less marked, due to the existence of warehouses and imports. There are no data available on quantities dealt with on this type of market.

1.4 Consumer markets

6. Consumer markets are markets in which retail sales from the trader to the end user are predominant. A considerable variety of manufactured products, mainly imported, are to be found on these markets. This type of market, most often found in Niger, comprises urban and rural markets. The latter are located in rural areas with low agricultural production, such as the regions of Agadez, Diffa, Tahoua and the Northern area of the Tillabéry and Dosso regions. The functioning and the price levels of urban consumer markets are quite different from the consumer markets in non-self sufficient rural areas.

1.5 Cross-border markets

7. The cross-border markets category is composed of national and foreign markets, situated in border areas, and where transactions take place between players from the various countries. These markets act as relays for the cross-border marketing circuits. They are mainly run by the border populations. Cross-border markets are most active in periods other than the national collection period, especially therefore starting in January/February up until August.

8. With regard to trade with Nigeria, the Dan Issa (Maradi region), Mallawa (Zinder), Konni (Tahoua), Illéla, Damassack, Mai Adua and Jibia (all 4 in Nigeria) markets are the most important. As for the markets situated along the Nigerian border, commercial transactions are carried out in two currencies – the FCFA and the Naira – with the latter clearly dominating. With regard to Benin, Gaya (Dosso) and Malanville (Bénin) are to be noted, for Mali, Ayarou (Tillabéry) and Ségou (Mali) and for Burkina Faso, Torodi (Tillabéry) and Kantchari.

2. Presentation of the main markets

2.1 Introduction

9. The main markets are located in areas with high production and imports (Maradi and Zinder) and high consumption (Niamey). A presentation of these markets is provided in the following sections, after an assessment of the integration of a sample of markets.

2.2 Integration

10. The large markets in Niger are generally well integrated. The correlation coefficients for millet prices observed on different markets from 2000 to 2004 are fairly high, always higher than 0,8 and often around 0,95. Table D 3 looks at the regional averages of the

coefficients, as well as the coefficients of the Malanville, Mai Adua and Jibia markets. Appendix 4 shows the coefficients in detail for approximately twenty markets.

11. The results of this analysis confirm the conclusions of other studies for the 2000/2001 and 1991/1992-2000/2001[18] periods. There is strong integration with the two Nigerian (Mai Adua et Jibia) and Bénin (Malanville) markets.

Table D 3: Correlation coefficients for the price of millet (2000-2004)

	Tillabery	Agadez	Diffa	Dosso	Zinder	Tahoua	Maradi	Niamey	Malanville	Jibia	Maiadua
Tillabery	1.00										
Agadez	0.97	1.00									
Diffa	0.96	0.96	1.00								
Dosso	0.96	0.96	1.00	1.00							
Zinder	0.94	0.94	0.93	0.92	1.00						
Tahoua	0.99	0.98	0.98	0.98	0.97	1.00					
Maradi	0.94	0.95	0.94	0.93	1.00	0.97	1.00				
Niamey	0.99	0.96	0.96	0.97	0.90	0.98	0.90	1.00			
Malanville	0.96	0.94	0.98	0.97	0.98	0.99	0.98	0.94	1.00		
Jibia	0.97	0.95	0.96	0.96	0.99	0.99	0.99	0.94	1.00	1.00	
Mai Adua	0.93	0.98	0.99	0.99	1.00	0.98	1.00	0.89	1.00	1.00	1.00

Source : Mission calculations on the AMIS data base.

12. On the contrary, there is currently little information available on the integration of small local markets that are not monitored by the AMIS. Even though the AMIS network is quite large, it does not reach the small, distant markets. Thus, no systematically collect data exist on price trends in small rural markets. Yet is is mainly these these small town and village markets that rural populations mainly attend. Observations in the field show that there are dynamic traders who go up and down the country. On the other hand, the poor road network, the large distances in the country, occasional security problems and the scattered demand suggest that integration of small local markets with markets monitored by the AMIS would be low. This could entail higher prices, discontinuous supply, etc.

2.3 Maradi markets

13. The Maradi town market is one of the country's most important markets, run by the traders of Maradi, Zinder, Agadez and from Nigeria. This market is supplied by the region's collector markets such as Sarkin-Yamma, Safo, Jiratawa and Gabi, Tibiri, Guidan-Roumdji, Chadakori, Sayé-Saboua, Guidan-Sori, Aguié and Dakoro. This is a market where cereals are grouped with the following main destinations : Niamey, Tahoua and Agadez.

14. The table below shows an estimate of the number of traders for a sample of markets in the Maradi region. The typology of traders is shown in section 3 of this chapter. It should be noted that the dividing line between wholesaler and semi-wholesaler is often ambiguous. An average total of 50 retailers, 40 collectors and 10 semi-wholesalers are active on these markets, while no more than about ten large traders are present in the most important markets.

[18] Par exemple, 'Etude sur le commerce des céréales au Niger', Kouyaté K., Laouali Addoh S. et Samaila A., juin 2002.

Table D 4: Estimate of the number of traders out of a sample of Maradi markets

Markets	Type of market	Wholesaler	Semi-wholesaler	Collectors	Retailers
Aguié	Collector-consumer		2	30	30
Dan-Issa	Cross-border			40	30
Dakoro	Collector-consumer		10	50	50
El-kolta	Collector		5	20	20
Gararé \ a	Collector	7	10	70	70
Koona	Collector			20	15
Maradi-Commune	Wholesale	10	30	80	200
Mayahi \ a	Collector-wholesale	2	5	60	60
Sabon-Machi	Collector		5	30	25
Sarkin-yamma	Collector			11	8
Tchadoua \ a	Collector-wholesale	4	10	50	50

\ a: the wholesalers come from Maradi and Zinder
Sources: AMIS and field surveys

2.4 Zinder markets

15. The Zinder region is the second most important source of cereals (with Maradi). The products are collected in rural markets and transported to the market of the town of Zinder or directly to Agadez. Two large collector-wholesale markets are in the Tanout *département*: the Bakin-Birgi and Tanout markets.

16. Bakin-Birgi, situated in the Olléléwa canton in Damergou, the granary of Niger, is active every Monday. About ten small rural collector markets supply Bakin Birgi, especially from October to June except in deficit years when collection ends as early as February. During the collection period, 100 tonnes of millet, 80 tonnes of sorghum and 450 tonnes of cow pea are collected each market day. The Tanout market is active each Saturday, during the same period as Bakin Birgi. The quantity is approximately 200 tonnes per day, for all cereals taken together.

17. From the central Zinder market, the main destinations of the long circuits are Niamey, Tahoua, Agadez and Diffa. For these two latter destinations, Zinder acts as the main supplier.

2.5 Niamey

18. The town of Niamey has several large markets, amongst which are the Complexe and Katako markets. These are consumption and group markets for cereals from Maradi / Zinder, from Nigeria and, according to the years, from other collector markets in the Western part of the country. Part of these cereals are transported towards the Téra, Tillabéry and Ouallam *départements*, especially during the lean season and during food shortage years. During good seasons and during the harvest period, the short circuits in these three areas are enough to supply local markets.

19. Considering that the Niamey markets are urban consumption markets, cereal demand is strong throughout the year.

3. Market players

3.1 Producers

20. Producers intervene in the rural markets in the production areas, especially during the first six months of the marketing year (October – March). The considerable presence of women can be noted in sales in the Western part of the country, whilst selling is a men's business in the rest of the country. Their offer of agricultural products, composed of cereals and commercial crops, generally involves small quantities that are sold by local measures, mainly the tia.

21. The producer prefers to market commercial crops first – if he owns them, before selling his cereals. In fact, these are essentially intended for own consumption. However, in order to face certain expenses (taxes, religious ceremonies, repayment of debts contracted during the lean season, children's clothing), the producer is often led to sell part of his production just after the harvest even if this does not entirely cover his home's yearly consumption. Also, in a normal year, at the start of the rainy season, the offer on the part of producers can show timid recovery, caused by a need for cash for paying labour and agricultural inputs.

22. Producers' customers are often collectors and consumers. There are often privileged personal relationships between the producers and collectors who go directly to collect their products.

3.2 Primary collectors and secondary collectors

23. Small traders or producers in the production areas, inhabitants of villages where the weekly markets are held, primary collectors have a fixed space during market days and/or move from village to village. They use a sheet of canvas, or pieces of mats sewn together to form a display, a needle for sewing sacks and a local measurement unit. They purchase from the producers with whom they entertain a close/friendly relationship.

24. The "secondary collector" are travelling traders whose function is to purchase the products and regroup them. They work on behalf of network heads, the big wholesalers, who place funds and sacks at their disposal, or they operate on their own. The secondary collectors in turn finance the primary collector with whom they entertain a close/friendly relation.

25. Indeed, there are two collection systems in Niger : i) the system of the Zinder and Maradi areas, which has a strong hierarchy and is highly integrated; and ii) the system of the Western part of the country and of the Tahoua region, which instead is based on commercial ties among traders who intervene on their own behalf. In the first system, the head of the network, who is often a wholesaler, has the capital and the warehouses. Secondary collectors constitute the second level, they are the direct representatives of the network head and are responsible for collection and, by virtue of this, receive money and sacks from the network head to whom they answer. Primary collectors form the third level, and they work on behalf of the secondary collector.

26. The second system is composed of primary collectors who purchase on their own behalf and of secondary collectors who make their purchases on market days for the purpose of selling the products to the wholesalers. Though the collectors and secondary collectors can

work on behalf of a wholesaler, relations are definitely more commercial than social : they work for the one who guarantees them the highest earnings.

27. The principal factors that determine the collection price are : the relative power of producers and collectors, and the number of collectors. In the Zinder and Maradi regions, the secondary collectors – who are responsible for collection on behalf of large networks – establish the collection price following consultations with each other on market day; the other players accept this price, unless there are traders from Nigeria or other parts of the country who offer a more attractive price. It is difficult to judge whether these networks are truly in a position to 'fix' prices in a systematic manner and for a long period, without attracting new traders wishing to benefit from high margins. In other parts of the country, producers propose prices to the collectors. The price is determined after negotiations.

3.3 Wholesalers

28. Wholesale traders have a relatively large financial base which allows them to make purchases at local level but also to import and export several tonnes of products. They reside mainly in the large urban centres where they have warehouses and at times even trucks. They rarely attend rural collection markets for which they have representatives, who are the secondary collectors. They are not very numerous[19], they hold a fairly strong position which allows them to control the marketing process upstream and downstream. Thus, wholesalers entertain preferential relations with local and central administrations, other foreign or national wholesale traders, intermediaries and secondary collectors. Thanks to these relations, they are perfectly informed on local price movements at all levels. Unfortunately, the amount of products they deal with, their actual influence on prices and their stock strategies are not well known.

29. It must on the other hand be noted that there are only two private registered commercial companies that are involved in trade in agricultural products, particularly in commercial crops. They are only interested in cereals in order to respond to calls for tenders from institutions. These companies have warehouses and apply modern stock management rules[20].

3.4 Trade - transporters

30. This category of traders was born thanks to the liberalisation of trade in agricultural products. It is mainly Nigerian traders who intervene directly on Niger markets with 10- to 40- tonne truckloads of cereals that they sell and buy in exchange for cow pea and the livestock that the resell in Nigeria.

31. They are particularly visible during the lean season in the production area markets where they practise a cereal / commercial crops "barter" (cow pea, voandzou, souchet...) and in the livestock markets where they purchase the livestock in exchange. In order to sell all their merchandise quickly, they generally apply prices that are slightly lower than the market prices. Their main customers are consumers (farmers, livestock holders...) but also local retailers and semi-wholesalers.

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19 Their exact number is unknown; the only available estimate suggests about fifty.

20 SOCOPAP-SA has three warehouses in Tchadoua, Dosso and Konni whose capacity varies from 500 to 1 500 MT; SNCPV has two warehouses in Zinder (1 500 MT) and Matamèye (500 MT).

32. Barter is usually done on the Abalak and Tchintabaraden markets, in the Tahoua region, to exchange livestock for cereals, on the Loga, Mokko (Dosso) and Dogondoutchi (Dosso) markets to exchange livestock (predominantly in Mokko) and cow pea and vouandzou (predominnantly in Dogondoutchi) for cereals, and the Téra and Gotheye, and Ballayara markets (every 3 in the Tillabéry region) to exchange livestock and cow peas against cereals.

3.5 Semi-wholesalers

33. These are generally located in consumer markets and they purchase their supplies from wholesalers. They supply retailers and consumers. They generally have a warehouse that serves as a deposit for them but also as selling premises for other vital commodities: condiments, sugar, soap …

34. The independent semi-wholesalers purchase supplies at their own expense from their own suppliers. Certain ones import relatively small quantities (10-15 tonnes[21]). The dependent or intermediary part-wholesalers act as brokers, they take delivery of products entrusted by wholesalers and sell them in exchange for an agreed commission.

3.6 Retailers

35. These are the traders who sell exclusively to consumers in sacks or by local measurement units (tia, cope, tomato can…). They are the most numerous. Certain retailers purchase their supplies on credit from a wholesaler or semi-wholesaler. Only after a sale do they make payment according to the agreed price and replenish their supplies.

4. Commercial strategies

4.1 Producers

36. The commercial behaviour of producers essentially reflects their food security strategy. Producers stock their cereals for household consumption, while they sell their commercial crops according to their needs for money; they start selling their cereals only after the commercial crops have been sold. Money needs could concern the repayment of debts, the payment of taxes, the purchase of clothing and religious and cultural celebrations. Often, these needs arise at the start of the marketing year. It is plain that during this harvest period, large quantities can be found in the markets, which are offered at the lowest prices of the year.

37. At the start of the agricultural crop season (June/July), various strategies can be noted. On the one hand, there are sales of agricultural products to finance purchases of agricultural inputs and / or payment of labour for work in the fields. On the other hand, producers keep their stocks during this start of the crop season because of the uncertainties related to the future harvest, and because of the lack of time to go to markets and the poor state of the tracks. It is only in August / September that farmers start to reduce their stocks substantially, once the beginnings of a good harvest make themselves felt, with a reduction in prices starting from this period.

[21] 'Study on trade in cereals in Niger', Kouyaté K., Laouali Addoh S. and Samaila A., June 2002.

38. Producers who only grow millet are more vulnerable to shocks requiring a monetary outlay as opposed to producers of various crops. The latter can, for example, sell their commercial crops in order to meet compulsory expenses.

39. Stocks at household level start being made immediately after the harvest, in granaries built with local materials. The quantity of cereals placed in stock varies according to the harvest and money requirements. Producers having the means make purchases from other producers for the purpose of selling the products to traders.

40. Finally, producers stock cereals at village level in cereal banks; there would seem to be about 15 000 of these ! The large number of cereal banks is the result of intensive promotion by several projects and NGOs. Despite the diversity and number of promoters, the cereal banks share a common objective: food security. The main constraints on these banks are : a lack of funds for making purchases and management problems.

4.2 Traders

41. The strategies of collectors, secondary collectors, wholesalers, retailers, etc. are all oriented towards maximising profits, subject to their loyalty to their partners. Roughly speaking, their strategies are characterised by:

i) rapid rotation of cereal stocks because of the weakness of revolving funds, risks of cereal price reductions and the lack of informaion on food aid distributions and methods;

ii) collection mainly in local areas, in the vicinity of the traders' place of residence, in order to minimise collection costs, followed by collection in more distant areas when products become more difficult to find;

iii) agreement among traders on collection prices to the detriment of producers: traders wait until the end of market day before buying, thus compelling producers to lower their prices rather than risk having to return home with their goods ;

iv) sale on credit at all marketing stages : retailers and semi-wholesalers generally pay their suppliers after having sold their products, thus favouring continuous mutual ties ; part of the transactions are sometimes paid in cash while the balance is financed on credit ;

v) the near-total lack of bank financing for the cereal trade, except for the two officially registered companies and traders who have diversified their activities and can access bank loans through these activities ;

vi) inclusion of marketing costs in sales prices, thus based on real costs, the traders refuse to place their products on the market when they feel that they are losing money, since they are certain that in the following days they can obtain a more remunerative price owing to the constant demand in Niger ; and

vii) with regard to wholesalers, a flexible purchasing strategy, based on national but also cross-border partnerships, allowing them constantly to stay abreast of prices in different countries and regions and to purchase supplies at the most economical price.

5. Marketing channels

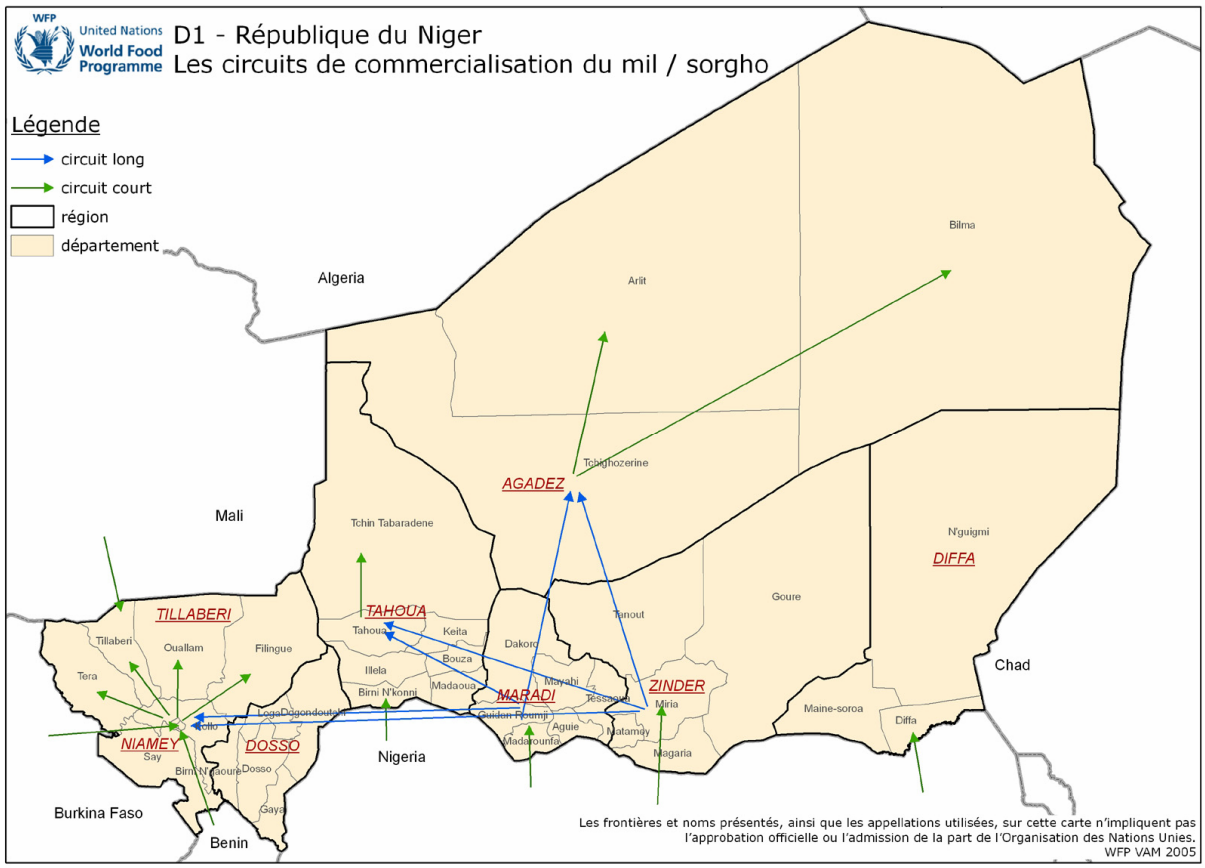
5.1 Introduction

42. A brief analysis of marketing channels by agricultural product is presented in the following section, followed by a presentation of some key marketing channels that maintain a constant activity during the course of the marketing year:

i) Axe Maradi - Niamey
ii) Axe Maradi – Tahoua
iii) Axe Maradi – Agadez
iv) Axe Zinder – Niamey
v) Axe Zinder – Agadez
vi) Axe Gaya – Niamey

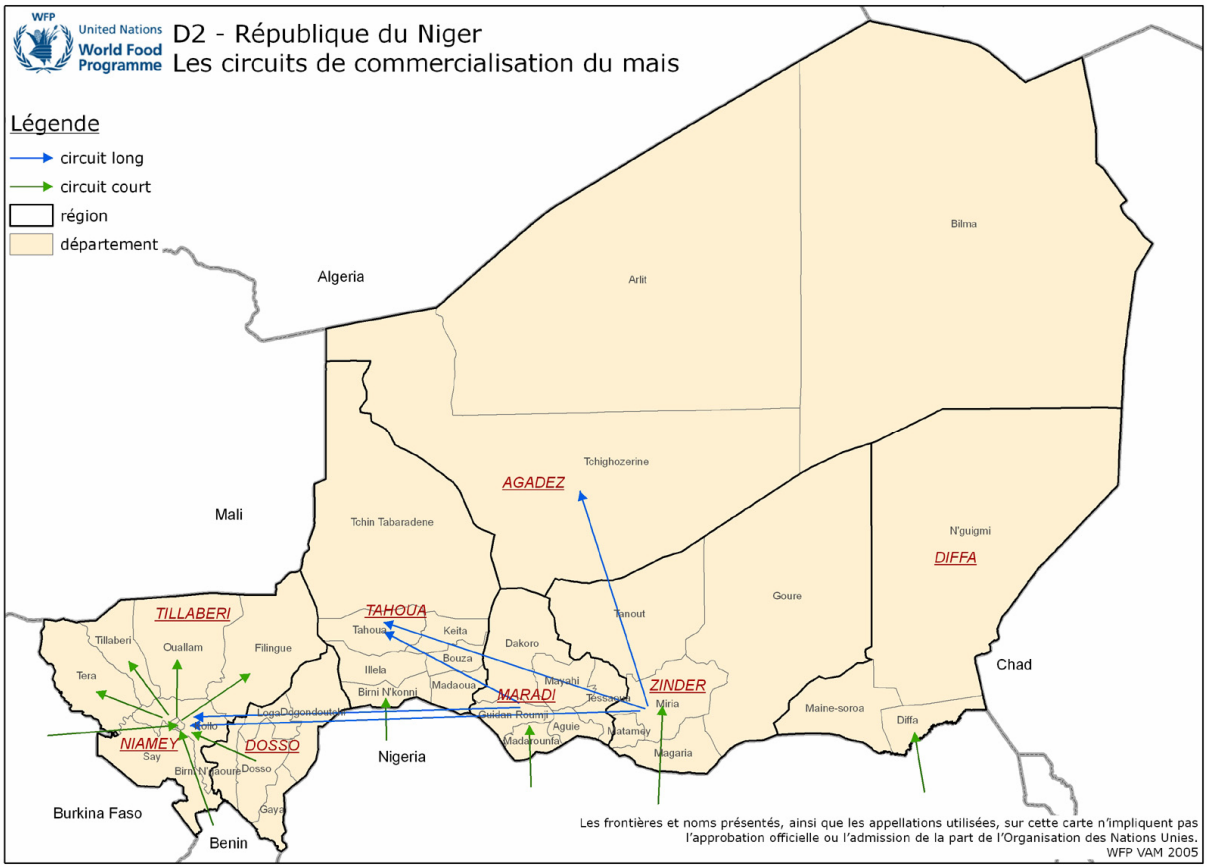
5.2 Marketing channels by agricultural product

43. **Sorghum and millet.** Millet and sorghum are generally collected in the Zinder and Maradi regions or imported from Nigeria, and dispatched to the towns of Agadez, Tahoua and Niamey. Starting from these towns, short marketing circuits ensure supplies to the neighbouring deficit areas. On the other hand, millet and sorghum from Burkina Faso are often marketed in Niamey. Apart from this general situation, the direction of flows between large towns and the countryside depends on the agricultural marketing year. During a good year, a *département* can serve as a collection market while during a bad year this same *département* accumulates a deficit and food supplies are dispatched to these populations. On the other hand, a collection market could become a deficit market during the course of a single marketing year. The general picture showing the ‘perennial’ flows is shown in the map below.



44. **Maize.** For the marketing of maize, the circuits follow the same general lines as millet/sorghum, except for the greater role played by traders from Burkina Faso and Bénin. The latter mainly supply the Eastern part of the country, including Niamey, while Nigerian traders supply the country's central and Western markets instead (but also Niamey). This year, 2004/2005, imports from Burkina Faso were very low owing to an unofficial ban on cereal exports[22]. The map below shows the general directions of maize marketing circuits.

[22] Despite the ban on cereals leaving the country, certain Burkina companies, such as the TERA company, have benefited from a special State derogation for the exportation of maize.

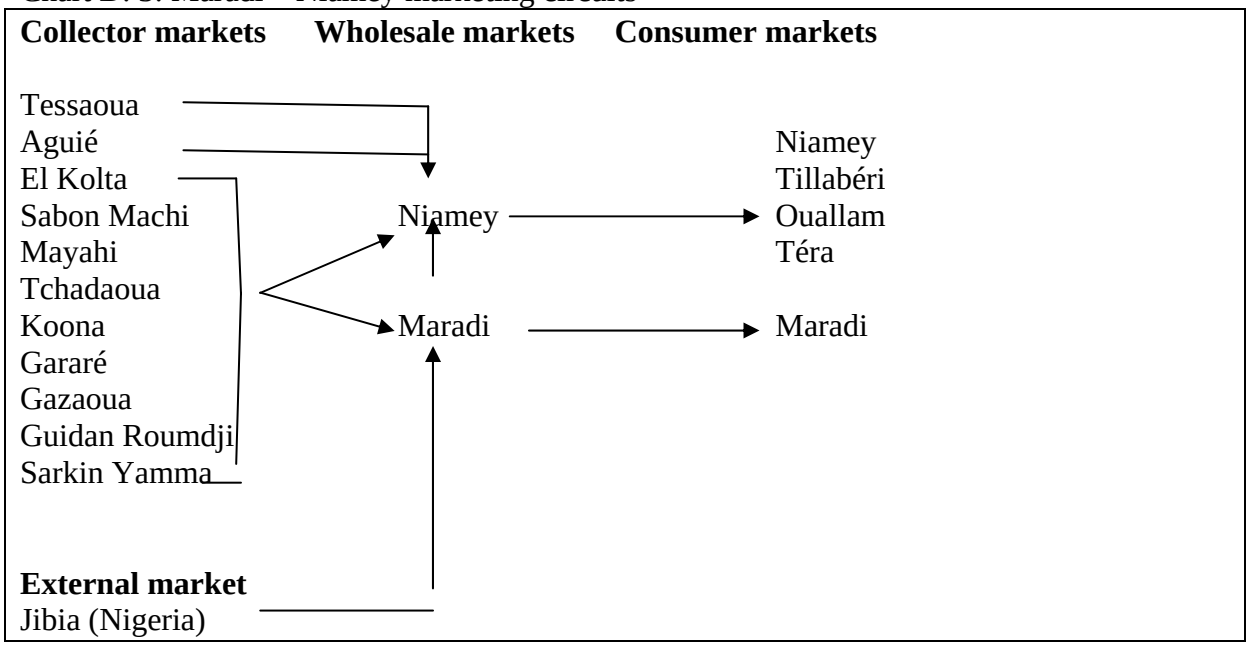


5.3 The Maradi-Niamey axis

45. Cereals collected in the Maradi region or imported from Nigeria by Maradi traders travel through this axis towards Niamey. The markets situated along this axis are Maradi, Birni N'Konni, Dogondoutchi, Birni N'Gaouré, Dosso and Niamey, which acts as a relay for replenishing the Téra, Tillabéry and Ouallam areas. This renewal of food supplies is only carried out at the beginning of the lean season in an average harvest year, but earlier during a bad crop season.

46. This axis is composed of several circuits run by the Maradi traders, who can be classified into two groups comprising : i) the product collection and 'grouping' circuits in Maradi ; and ii) the circuits for transport towards the Niamey and Tillabéry markets. Chart D 3 provides a view of the different marketing circuits.

Chart D. 3: Maradi – Niamey marketing circuits



47. **Collection and regrouping circuits in Maradi.** These 'short' circuits include the collection and regrouping of local cereals in Maradi and the collection and supplying of markets in Maradi, starting from Nigeria.

48. For this first short circuit, collection and regrouping of cereals through the Guidan Roumdji, situated to the Northwest of Maradi at approximately 57 km from Maradi on the RN1, is the most important. This circuit allows regrouping of cereals (millet, sorghum) collected at Guidan Roumdji and in the neighbouring villages, at Maradi a few days after the Guidan Roumdji market day.

49. For supplies from Nigeria, the principal short circuit is from Jibia towards Maradi. This circuit goes far back in time and allows Maradi traders to purchase supplies of Nigerian cereals starting from Jibia. This market is located 52 km from Maradi, in the Northern part of Nigeria. Cereal is transferred to Maradi by Nigerian vehicles. Certain Maradi traders go as far as the centre of Nigeria in the Kaduna region or to the international market of Dawanu a few kilometres from Kano to renew their cereal supplies. These are then regrouped in Jibia to be transported to Maradi.

50. **The cereals transfer circuits towards Niamey and Tillabéry.** Niamey is supplied by the Maradi circuit and sometimes directly from the Tessaoua and Aguié collector markets. Tillabéry is supplied by a long Maradi circuit and a shorter Niamey circuit.

51. The Maradi-Niamey circuit is the country's main marketing circuit. It is 650 km long and allows Maradi traders to supply Niamey traders with imported cereal (starting from Jibia) or with cereals collected on the rural markets.

52. Aguié is situated approximately 35 km East of Maradi on the RN1. The products collected on this market are regrouped on the spot for subsequent transport to Niamey. At Tessaoua, Maradi traders have warehouses available that allow them to stock the products collected on the spot or on the neighbouring village markets. The circuit to Niamey is 780 km long.

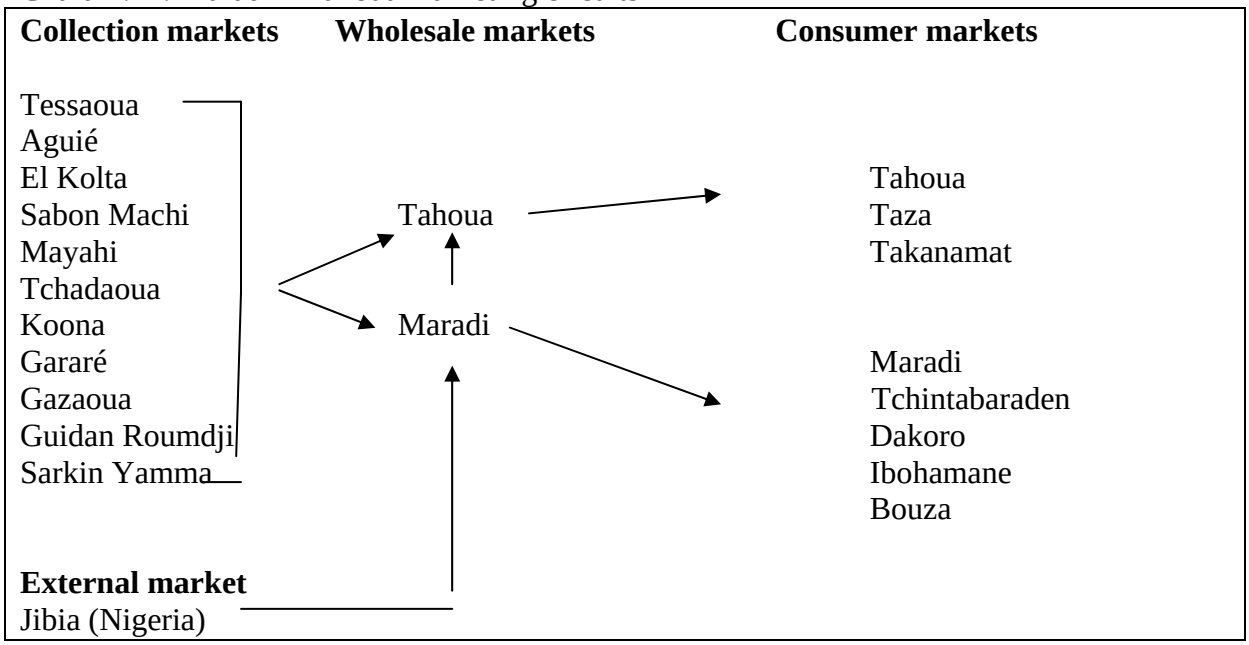
53. For the Tillabéry markets, the Maradi – Tillabéry circuit, which is over 770 km long, provides cereals to Tillabéry and connected villages without passing through the Niamey traders. This circuit mainly depends on the agricultural marketing year. It is generally more active in the pre-transition and lean seasons when millet stocks (millet from Yelwani and neighbouring areas) built up during the collection period by local traders are exhausted.

54. Starting from Niamey, the cereals are transported towards markets in the Tillabéry *département* by the Niamey cereals traders. There are three principal circuits of this kind, i.e. the Niamey-Tillabéry, Niamey-Ouallam and Niamey-Téra circuits. They are approximately 113 km, 100 km and 174 km long respectively. These circuits are mainly active from before the lean season and stay active throughout the rest of the year. Cereals are transported starting with lorries rented in Niamey.

5.4 The Maradi-Tahoua axis

55. This axis ensures that the Tahoua region is supplied with cereals (millet, sorghum and maize) by Maradi traders. This produce can be national or imported. Cereal collection and regrouping follows the same lines as described above. Produce is dispatched from Maradi towards the Tahoua and neighbouring regions (Cfr. Chart D 4 below).

Chart D. 4 : Maradi – Tahoua marketing circuits



56. On the one hand, the Maradi traders ensure that the town of Tahoua is served (distance : approximately 369 km), and on the other, the presence of a parallel circuit can be seen, that permits Tahoua traders to reach collection markets of the Maradi region so that they themselves can collect the products and then send them on to Tahoua. It sometimes occurs that they go as far as the markets of Nigeria in order to supply the town of Tahoua.

57. Consumer markets in the Tahoua region are supplied from the town of Tahoua, as is the case with Taza and Takanamat, or directly from Maradi, as in the case of Tchintabaraden and Bouza, and neighbouring locations.

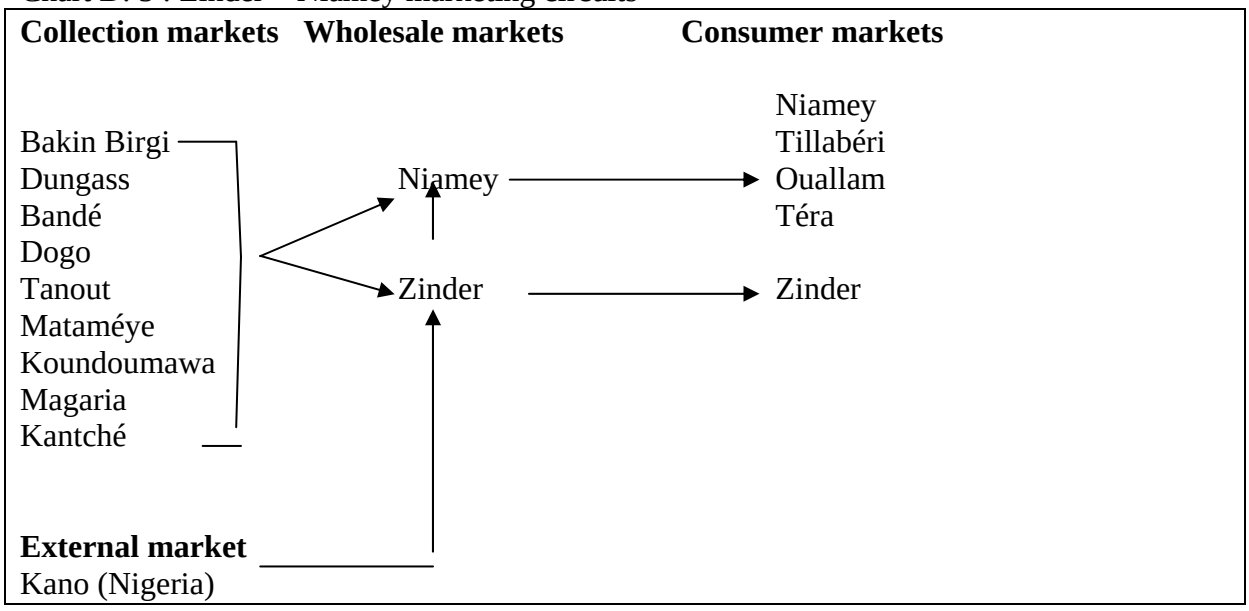
5.5 The Maradi-Agadez axis

58. The Maradi-Agadez axis allows the town of Agadez and its surroundings to be served by the cereal suppliers from Maradi. The products leave Maradi, then take the laterite Dakoro road before rejoining the tarmac road that goes from Tahoua to Agadez at PK 22 North of Tahoua. This circuit is more than 700 km long with about 380 km of laterite road. From the Agadez market, the mining town of Tchirozérine and the Arlit location receive their cereals.

5.6 The Zinder-Niamey axis

59. This axis allow traders from Zinder to supply the town of Niamey and the neighbouring villages, similarly to the Maradi-Niamey/Tillabéry circuit, considering that the millet and sorghum are collected from rural collection markets in the Zinder region. This axis is also composed of three main types of circuits : i) cereals collected on rural collection markets, regrouped on wholesale markets and sent on towards Niamey and its connected villages ; ii) a direct circuit that links the collection markets of the Zinder *département* to the markets of Niamey and neighbouring areas ; and iii) the Kano-Zinder circuit: supplies in this case are provided by the Zinder millet, sorghum and maize traders starting from the international Dawanu market at Kano ; this axis also allows the Zinder traders to supply their colleagues from Nigeria with cow pea collected on the rural markets of the Zinder region; the imported cereals are then sent on to Niamey.

Chart D. 5 : Zinder – Niamey marketing circuits



5.7 The Zinder-Agadez axis

60. This axis is the one most used for supplying cereals to the town of Agadez and neighbouring areas. Its allow cereal traders from Zinder to serve the Northern part of the country with cereals collected on the rural markets of the *départements* and with cereals imported from Nigeria. The cereals are dispatched both from the town of Zinder and from the group markets at Tanout and Bakin Birgi.

6. Trade margins

6.1. Introduction

61. The analysis of margins has been conducted for millet, Niger's chief staple food. The analysis covers the margins of four main axes: from Maradi towards Niamey, from Zinder towards Agadez, from Jibia in Nigeria towards Niamey and from Jibia towards Tillabéry. Only the results for the first three analyses are presented as the Jibia – Tillabéry results are similar to those of Jibia – Niamey.

62. Two important hypotheses were formulated : i) the comparison is made on the basis of the price of a 100 kg sack, on the assumption that a sack actually contains 100 kg at the market of origin and at the market of destination ; ii) calculations on margins are made on the basis of the hypothesis that there is a rapid rotation of stocks : most cereals traders keep minimum stocks in their warehouses, meaning that the time that cereals are kept in stock is extremely limited (from 1 to 15 days). It is mainly the first hypothesis that poses more problems considering that cereals are repacked between Maradi or Jibia and Niamey. Unfortunately, there are no other data available with regard to the Jibia market.

6.2. The Maradi – Niamey axis

63. The table below permits an examination of a trader's margin along the Maradi – Niamey axis over the last 5 years. On the basis of the collection price in Maradi, bagging, maintenance and transport expenses, and the consumer price in Niamey, the calculated margins on average show a downward trend during the October-March period. This period more or less corresponds to the collection period in this area, during a normal year. This downward pattern for margins is connected with a continuous rise in prices on collection markets, because of strong demand in the face of limited supply from producers. Indeed, production prices from October to May on the Maradi markets increased by 51 % while consumer prices on the Niamey markets changed by only 19 % during the same period.

Table D 5: Average price and margin movements : Maradi and Niamey

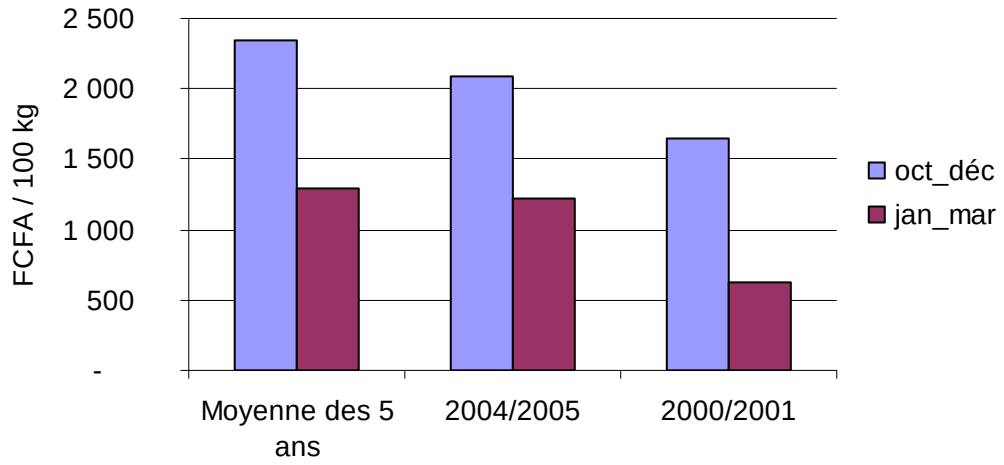
Price differential fluctuations : five-year average									
	Oct	**Nov**	**Dec**	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**Jun**
Details of costs	in FCFA/ 100 kg sack								
Producer price : Maradi	7 951	8 819	9 040	9 652	10 883	11 977	12 903	12 715	12 601
Bagging	200	200	200	200	200	200	200	200	200
Maintenance (loading/unloading)	100	100	100	100	100	100	100	100	100
Transport	1 000	1 000	1 000	1 000	1 000	1 000	1 000	1 000	1 000
Niamey cost price	9 251	10 119	10 340	10 952	12 183	13 277	14 203	14 015	13 901
Consumer price at Niamey	11 985	12 208	12 536	12 494	13 548	14 266	15 356	15 046	14 951
Trader's margin	**2 734**	**2 089**	**2 196**	**1 542**	**1 364**	**990**	**1 153**	**1 030**	**1 051**
Margin in % of cost price	**23%**	**17%**	**18%**	**12%**	**10%**	**7%**	**8%**	**7%**	**7%**

Source: AMIS and mission estimates

64. Since October 2004, monthly margins have not changed much compared with this pattern, while in 2000/2001 margins were weaker, especially during the (pre-) lean season (Cfr. the chart below and appendix 6 for details). This could indicate that in 2000/2001, a poor production year, the supply on Niamey markets came from elsewhere (probably Nigeria) since the Maradi sources of supply were no longer competitive. By contrast, in 2004/2005, an alternative source of supply was not available, and producer prices at Maradi and consumer prices at Niamey developed in an identical manner. It seems therefore that the price rise in

2004/2005 follows a different pattern from 2000/2001, owing to the lack of other sources of supply.

Chart D 6: Trade margins for millet between Maradi and Niamey



6.3. Jibia – Niamey axis

65. Apart from cereal supplies from Maradi, Niamey mainly receives its supplies from imports from Nigeria, Mali and Burkina Faso. Traditionally, Nigeria was the main source of imported cereals, but this country seems to have lost competitiveness, as the analysis of margins will show. This is based on the average consumer price on the main markets in Niamey and on export prices, converted into FCFAs on the basis of the parallel market exchange rate on the day of the survey.

66. Considering the average of the last five marketing years, apart from the month of October which is a harvest month, the Jibia- Niamey axis experienced negative margins for the entire October – June period. Actually, just as the markets in the Tillabéry regions, fresh supplies of millet for the Urban Community of Niamey would seem to have been ensured to a large extent over these last five years by « bargain » imports from Burkina Faso and Mali, to the detriment of that from Nigeria, which has been losing competitiveness owing to its relatively high cost. This conclusion depends on the validity of the hypotheses, especially of that which states that sacks weigh 100 kg at the origin and at the destination.

Table D 7: Average price and margin movements : Jibia et Niamey

	Oct	**Nov**	**Dec**	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**Jun**
Details of costs					in FCFA/sack				
Export prices to Jibia	10 192	11 288	11 361	11 718	12 273	13 296	13 974	14 271	14 265
Bagging									
Loading/unloading	100	100	100	100	100	100	100	100	100
Transport	1 625	1 617	1 607	1 604	1 596	1 602	1 615	1 627	1 629
Niamey cost price	11 917	13 005	13 068	13 422	13 968	14 998	15 689	15 998	15 994
Consumer price at Niamey	11 985	12 208	12 536	12 494	13 548	14 266	15 356	15 046	14 951
Trader's margin	68	-797	-533	-928	-420	-732	-333	-952	-1 043
% of cost price	***1%***	***-7%***	***-4%***	***-7%***	***-3%***	***-5%***	***-2%***	***-6%***	***-7%***

Source: AMIS and mission estimates

67. The analysis for the 2004/2005 marketing year (Cfr. appendix 6) shows that gross trade margins were positive during the first quarter of the marketing year, and thus that the axis was profitable in this period. But as from January 2005, one witnesses an explosion in prices by 63% on the Jibia market. This price explosion generated negative margins between the two markets. These margins stayed negative for the entire remaining part of the period that was being analysed (January-June-2005). In other words, the cost price of a sack of millet sourced in Nigeria and landed on the Niamey market is considerably higher than the price on the same market during this period. Supplies to the Niamey markets were ensured by other sources than Jibia.

6.4. The Zinder – Agadez axis

68. The Agadez region is an area chronically and considerably below self-sufficiency, mainly receiving its millet supplies from Zinder. It emerges from the table below that in an average year; traders' profit margins stay positive and significantly so between October and June. Margins decline during the months of January and February because producer prices grow at a faster rate (20% in February) while prices even decreased in January (-2%) on the Agadez consumer market. Starting from March and up until June, producer prices and consumer prices tend to be stable, thus allowing traders to keep almost the same profit margins (8% to 9%) all through this period.

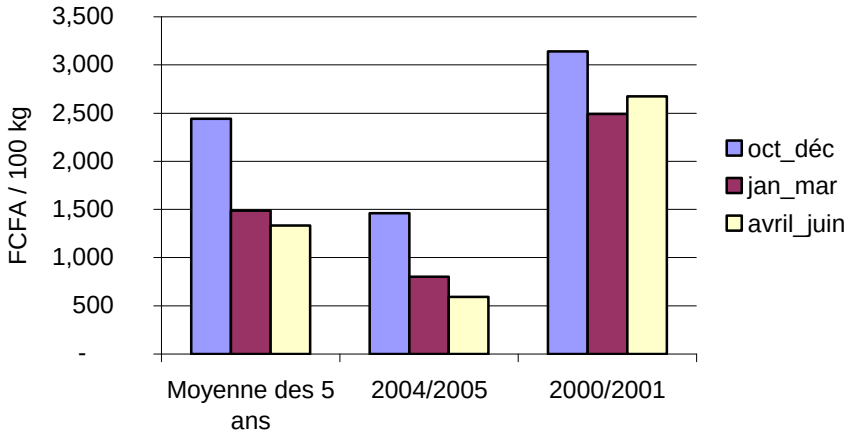
Table D 8: Average price and margin movements: Zinder et Agadez

	Oct	**Nov**	**Dec**	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**Jun**
Details of costs					in FCFAs/sack				
Producer prices Zinder area	8 546	8 834	9 161	9 815	11 422	12 289	12 904	12 852	13 022
Bagging	200	200	200	200	200	200	200	200	200
Loading/unloading	100	100	100	100	100	100	100	100	100
Transport	1 500	1 500	1 500	1 500	1 500	1 500	1 500	1 500	1 500
Agadez cost price	***10 346***	***10 634***	***10 961***	***11 615***	***13 222***	***14 089***	***14 704***	***14 652***	***14 822***
Consumer price at Agadez	12 517	12 972	13 781	13 538	14 410	15 438	16 230	15 889	16 061
Trader's margin	**2 171**	**2 339**	**2 820**	**1 923**	**1 188**	**1 349**	**1 527**	**1 237**	**1 239**
% of cost price	**17%**	**18%**	**20%**	**14%**	**8%**	**9%**	**9%**	**8%**	**8%**

Source: AMIS, green Africa (for transport costs), and derived data

69. In 2004/2005, margins remained positive and considerable during the harvest period, but low / negative starting from February. By contrast, in 2000/2001 margins were positive and considerable during the entire October-June period, indicating that markets were well-supplied from Zinder. The low margins suggest that: the Agadez market was supplied by other sources during this period, or that there was no rapid rotation of stocks. In other words, cereals sold during this period probably came from stocks built up after the harvest on the Agadez markets (Cfr. le Chart below and appendix 6 for details).

Chart D 7: Millet trade margins between Zinder and Agadez



6.5. Summary

70. Based on monthly data presented in Chapter 6.4 and in appendix 6, the 'value chain' shows that the difference between the collection prices and consumer prices is composed, on the one hand by transport costs, and on the other by bagging and maintenance costs and by the margin ; together they form a total of around 20 FCFA per kg.

Table D 9: Overall composition of the value chain for the millet trade \ a

	Maradi – Niamey		Jibia – Niamey		Zinder - Agadez	
	FCFA / kg	*%*	*FCFA / kg*	*%*	*FCFA / kg*	*%*
Collection price	107	89%	125	87%	110	86%
Transport	10	8%	15	10%	15	12%
Bagging / maintenance	3	3%	3	2%	3	2%
Cost price	120	100%	143	100%	128	100%
Gross margin	16	13%	-7	-5%	17	13%
Consumer price	136	113%	136	95%	145	113%

\ a: Based on the figures presented in chapter 6.4.

7. Marketing system constraints

7.1 From the viewpoint of rural consumers

71. In July 2005, a peasant from Niger buying a kg of millet on the local market spends more than a European consumer who buys a kg of rice at his supermarket. The high prices in Niger are not only the result of high local production costs, but also of the constraints affecting the marketing of cereals. As shown by the table below, several constraints cause an increase in purchasing prices to rural consumers. Also, the risk of a price rise is ever-present and out of the rural consumer's control.

Table D 10: Main constraints for rural consumers

High transaction costs - transport from production areas towards deficit areas is expensive ; - fragmented supply increases collection costs ; - fragmented demand increases marketing costs ; - harassment by officers in uniform ; - transport from coastal country ports towards deficit areas is expensive ; and - customs duties and taxes on imports
Absence of or very weak supply by a limited numer of traders in distant markets because of - fragmented and irregulare demand as well as high transport costs ; - the bad state of the roads and insecurity problems that limit accessibility of villages for traders, especially during the rainy season. The result is a reduction in the number of suppliers and weak 'negotiating power' of producers.
Needs are at their highest during years and seasons characterised by high prices: - rural consumers who are also producers have the most considerable cereals deficits in years of low production and thus high prices; - rural consumers exhausted their stocks at the beginning of the lean season, when prices are highest - thus, they appear on the markets to make their purchases when prices are high
Considerable influence on prices from neighbouring countries' policies, for example: - decision to institute a informal ban on cereal exports in Burkina Faso - self-sufficiency policy led to a price rise in Nigeria, Niger's main supplier
Great variability of prices between seasons and between good and bad harvest years - it is difficult to forecast; and - because of poverty and low savings capacity, difficult to manage

7.2 From the viewpoint of small producers

72. Proper functioning of markets is essential for small producers. However, this does not guarantee that producers can draw significant advantages from the sale of their products. As a matter of fact, their market position is weak, as detailed in the following table.

Table D 11: Main constraints for small producers

Producer has no influence on prices - once he arrives at the weekly market, he is forced to sell at any price owing to lack of stocks, to the prospect of high return transport costs and to the pressing need for money (he sells because he needs money) ; - either collectors fix prices for the day after a few hours of market activity or they wait until the end of the day before purchasing begins ; - producers are not organised
Sales decision are taken for other than commercial reasons - small producers sell their cereals to finance their costs and not to maximise their revenue ; - sales often take place just after the harvest, when prices are at their lowest - sales are more important in years of good production, and therefore at low prices
Considerable price variability according to the seasons and the years - it is difficult to forecast ; and - because of poverty and low savings capacity, difficult to manage
High marketing costs - trasnport costs from the village to the markets are high (often by cart) - considerable time is devoted to marketing

E. PRICE VARIATIONS

1. Seasonal nature of prices

1.1 Introduction

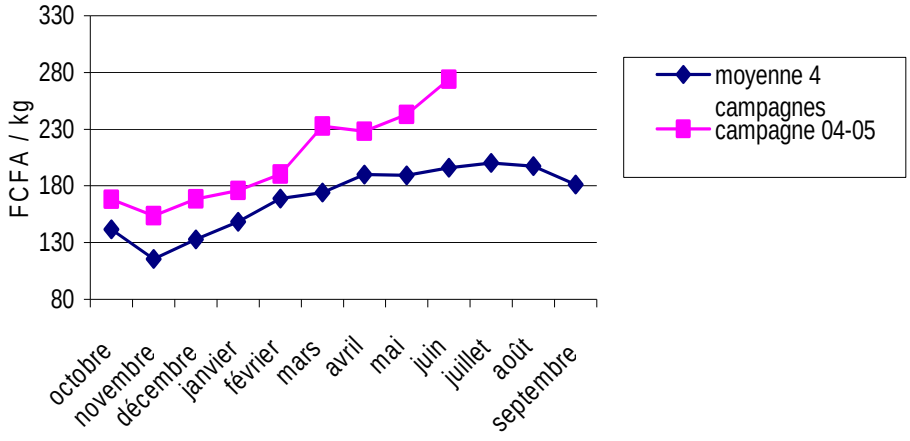
2. The seasonal nature of prices mainly depends on the type of market and on the level of the national harvest. For each of the types of markets, introduced in the previous chapter, the seasonal nature of prices during an average crisis year are presented below. The description will be confined to millet, the country's main staple food.

3. This seasonal nature is very strong in Niger: millet prices are on average 26 - 62 per cent higher in July as compared with prices in October, according to the regions, with an average of 39 per cent (during the 2000/2005 period). These variations are probably more pronounced on individual markets.

1.2 Rural consumer markets

4. These markets are located in the agricultural and pastoral areas of the country, they are deficit markets nearly every year. Considerable flows of food supplies are directed towards these markets in order to make up for the peasants' deficits and to supply livestock holders with cereals. The markets in the regions of Agadez, Diffa and of the Northern portion of Tahoua – the pastoral area – are always in deficit, whilst markets situated in the agricultural and pastoral area (Northern portion of Tillabéry and Dosso, centre of Tahoua) could become collection markets during very good agricultural production years. The prices on one of these latter markets – at Ouallam – are analysed as a representative example of the seasonal nature of the other rural consumer markets.

Chart E 1: Price of millet on the Ouallam market



Source: AMIS

5. In a normal year, prices generally peak in July / August. Starting from August / September, prices take a downward turn because traders start selling their stocks in view of the upcoming harvest. Prices are generally at their lowest in November, because of the sales of a part of the new production and lower demand from producers. Starting in December, prices start looking up again because demand increases while supply from small farmers decreases. The small producer's strategy is both to sell a small part of the harvest in order to

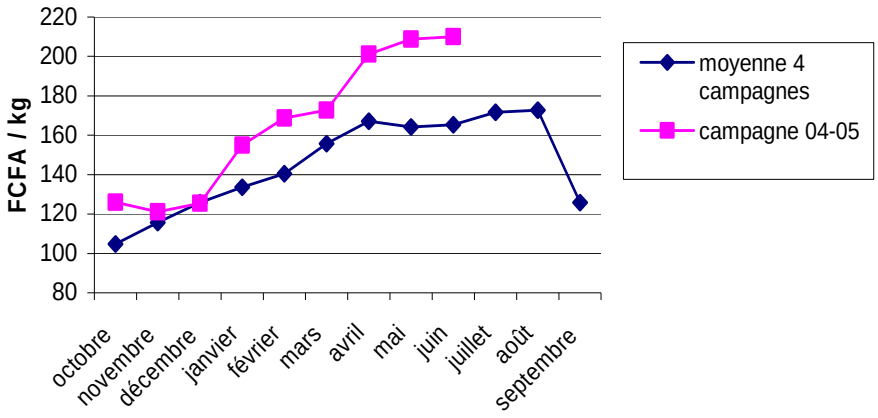
meet minor expenses (taxes, clothing, etc.) while keeping the greater part for his own consumption, and to take advantage of low post-harvest prices in order to build up their stocks again.

6. During a bad production year, prices do not decrease significantly at the time of harvest: starting in October, prices start to increase because production is not placed on the market and because of strong demand in order to take advantage of the low (relative) prices ; prices continue to increase until August.

1.3. Wholesale markets

7. These markets are not only located in the agricultural area, but they are also near important roads or large commercial centres, for example in the Southern part of the Maradi and Tahoua regions. The pattern of millet prices on the Badaguichiri market in the Illéla, Tahoua département is presented below.

Chart E 2: Millet prices on the Badaguichiri market



Source: AMIS

8. Prices are usually at their peak in August because the small farmers' stocks have been totally exhausted. Starting from September, prices decrease because the new harvest becomes available for the small farmers (demand on a downward turn). Prices are generally at their lowest in October, because of the actual arrival of new production. It is clear that prices are already at their lowest in October, while this takes place in November for the consumer markets. Also, prices fall decidedly faster on collection markets.

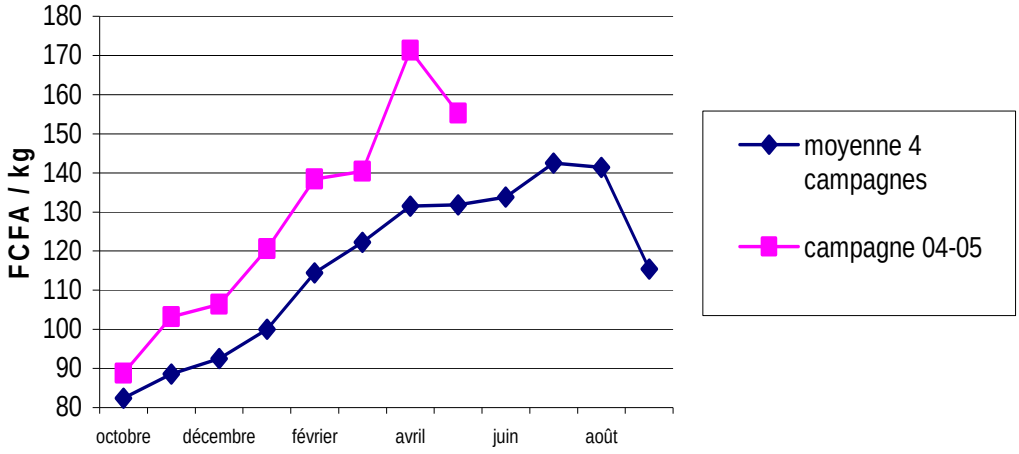
9. From November, prices begin to increase because the demand from collector traders and households wishing to restock is strong; collection only lasts four months (October - January). Also, the wholesale markets benefit from the transportation of cereals collected in other *départements*. The producers' strategy is the same as in the case of consumer markets. The traders first collect locally and in other *départements*, after which there is a period during which traders tend to privilege imports.

10. A low production year is characterised by the considerable presence of imported food supplies that arrive earlier than usual. These stocks are re-grouped and sent on towards the large commercial consumption centres such as Niamey. During such a year, price fluctuations are considerably affected by prices on cross-border markets.

1.4 Collection markets

11. These markets are in the high agricultural production areas, especially in the Zinder and Maradi regions. Their difference from wholesale markets lies in the distance from the major transport routes and an absence of 'inward' flows from other regions and/or countries. Nevertheless, as shown in the following Chart, price variations on a solely collection market are not very different from wholesale markets.

Chart E 3: Millet prices on the Bakin-Birgi market



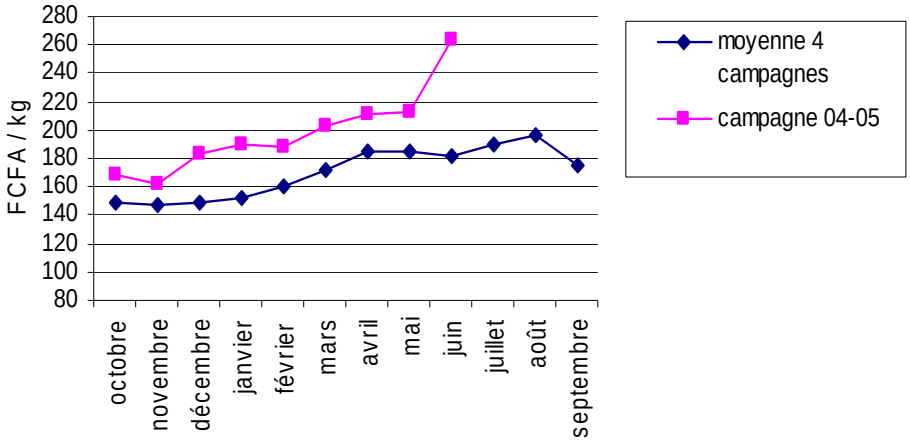
Source: AMIS

12. Prices generally reach their peak in August because small farmers' stocks are exhausted and imports have decreased. Prices begin to decrease in September, as new productions are available (decline in demand), reaching their lowest in October the new production actually arrives on the market. Between November and January, prices experience slight increases: one witnesses the arrival of collectors in this period, but since there is a supply, the increase will be quite moderate. Starting in February, prices start to show significant increases as supply drops. It becomes less and less important between March and June and rare during the June – August period. In a low production year, collection is confined to the October – January period.

1.5. Cross-border markets

13. The general price pattern is similar to that of the wholesale markets. However, the influence of the situation of neighbouring countries' border markets (exchange rates, social and political events, harvests) is deeper and more direct. Details on the key factors for imports and exports are set forth in chapter C. It is clear that the relative price of millet on Niger and Nigerian markets is one of the key indicators constantly to keep track of in order to obtain information on the development of the food security situation.

Chart E 4: Millet prices on the Jibia market



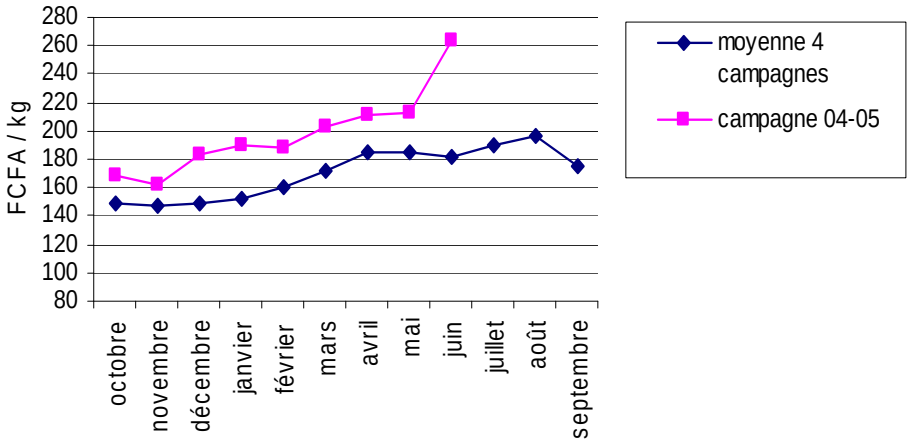
Source: AMIS

1.6. The Niamey markets

14. The four 'large' Niamey markets are considered urban consumer and wholesale markets. These markets receive supplies from several sources located in other countries. This, but also a well-developed communications system, leads to an attenuation of price fluctuations compared with the other markets.

15. Prices generally peak in August, then decrease, because traders begin selling their stocks in view of the upcoming harvest. Prices are generally at their lowest in November, with the arrival of new produce. Starting from December, prices begin to pick up as availability on collection markets decreases while demand originating from the Tillabéry region appears.

Chart E 5: Price of millet on the Katako market



Source: AMIS

16. During a low production year, prices do not decrease significantly with the harvest. Prices already begin to increase from October, since production is not placed on the market and a strong demand taking advantage of low (relative) prices is. Traders purchase larger quantities on Nigerian markets. There is strong demand originating in the deficit area of

the Tillabéry region. The role of rice becomes more important because its price is more or less stable.

1.7. Seasonality and arbitrage

17. As illustrated in the preceding sections, seasonality of prices is very marked. One of the questions put to traders during the surveys in the field concerned the reasons hampering non-simultaneous arbitrage. The chief factor suggested by traders is the lack of financing (80 per cent of those who answered), followed by the risk of a decrease in prices (17 per cent of those who answered).

2. Prices at collection and consumer prices for millet

18. The collection price is the price paid by the collector to the producer. AMIS data are gathered at the markets, thus the producer bears transport costs to the market. The consumer price is the price paid by a consumer to the retailer, at the market, as well.

19. Average collection and consumer prices were FCFA 116 / kg and FCFA 137 / kg during 2000-2004, out of a sample of 32 markets. The difference is calculated as the difference between collection prices and consumer prices on the same markets. Thus, the margin serves to compensate the collector's and the retailer's expenses, but does not represent transport costs between a collection and a consumer market. The average difference is FCFA 20 per kg, or 17% of the collection price, which more or less corresponds to bagging and maintenance expenses and the margin, as set forth in chapter D, paragraph 6.5.

Table E 1: Millet prices on 32 collection and consumer markets

Year	Consumer prices	Collection prices	Difference	Difference in %
2000	112	98	13	13%
2001	159	130	26	20%
2002	168	136	29	21%
2003	122	105	17	16%
2004	126	111	16	14%
average	137	116	20	17%

Source: AMIS.

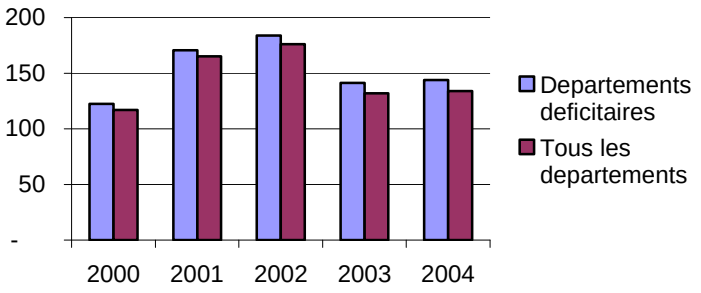
20. It is interesting to note that absolute and relative differences are highest in years when prices are high. Apparently traders manage to take advantage of price rises, more than proportionately, as the relative difference increases as well. Thus, traders do not only earn more per kg of millet, but also per invested FCFA.

3. Spatial price distribution

21. Several spatial analyses of prices have been carried out. Firstly, a comparison of 'consumer' prices for millet between deficit *départements*[23] and the national level shows that prices per kg are higher than 8 FCFA per kg on average on deficit *département* markets. These differences represent the transport costs and the margins of traders who manage transportation from collection areas towards deficit areas. Since 2000 the difference has increased from FCFA 6 in 2000 up to FCFA 10 in 2004. The difference during the first six months of 2005 was FCFA 11 per kg.

[23] All the *départements* having an average gross cereals deficit above 10%, in 2000-2004, according to Ministry of Agriculture data.

Chart E 6: Consumer prices for millet in deficit *départements*

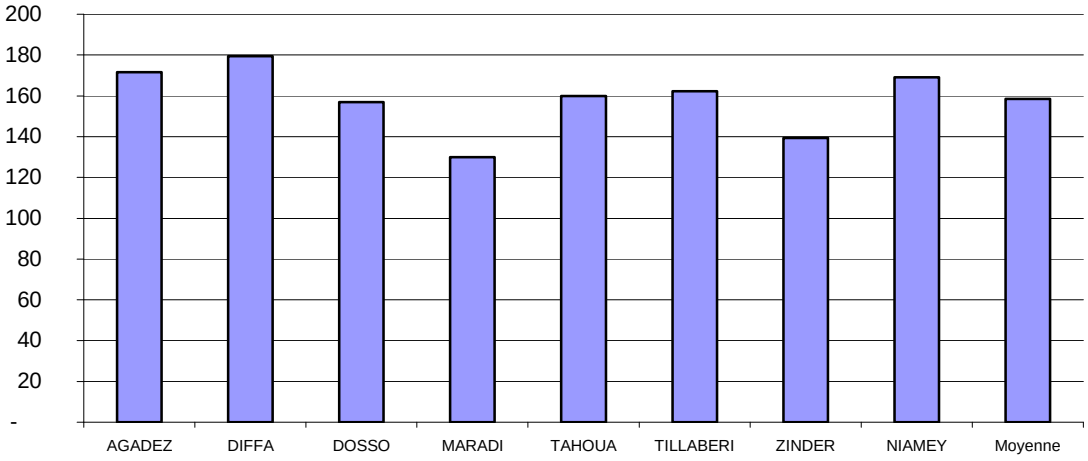


Source: AMIS.

22. Secondly, millet prices in the *départements* most affected by the bad harvest in 2004 are on average FCFA 9 per kg higher than the national average, during the first six months of 2005 (FCFA 203 instead of FCFA 193). About half of the 'affected' *départements* are also *départements* with a structural deficit. It can be concluded that this difference of FCFA 9 per kg is not far from the compensation that is normally paid for transportation costs and traders' margins for renewing the supplies of deficit markets and is even less than the difference of FCFA 11 in 2005 (Cfr. previous paragraph).

23. A comparison of consumer prices for millet in the different regions over the last five marketing years, shown in the Chart below, suggests the conclusion that prices in the Zinder and Maradi regions are below the average price, while the other regions experience higher than average prices. This is in line with the production and marketing chain (Cfr. chapter D). The analysis of monthly prices does indeed show that prices in these two production regions are always lower than the Agadez, Diffa and Niamey averages, which are always above average. The other regions experience lower prices during the harvest and collection periods, followed by prices higher than average during the subsequent period.

Chart E 7: Consumer prices for millet by region (5 last marketing years)



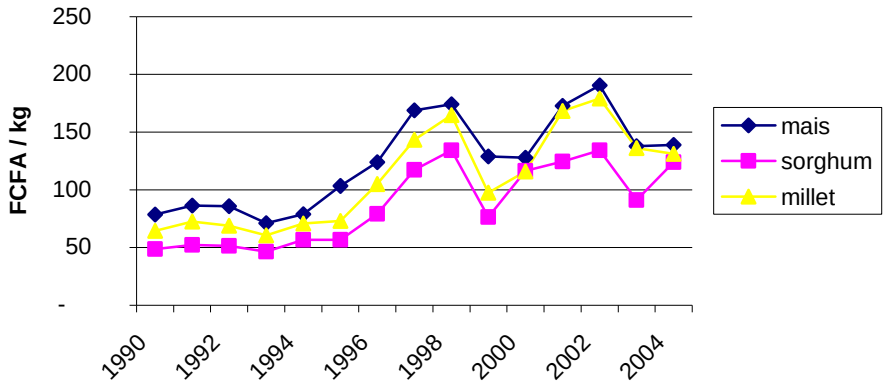
Source: AMIS.

4. Price trends

4.1 Nominal prices

24. Cereal prices have had an upward trend since 1990. Consumer prices in 2000-2004 were 90-130% higher as compared with 1990-1994 and 10-25% higher as compared with 1995-1999. The price explosion mainly took place in 1996-1998 and 2000-2001. The increase in millet and sorghum prices is more considerable than that of imported rice. Prices seem to have entered a new fluctuation area: around FCFA 150 instead of FCFA 80 for maize and millet and FCFA 120 instead of FCFA 50 for sorghum (Cfr Graph E 8).

Graph E 8: Consumer prices for millet, sorghum and maize by year

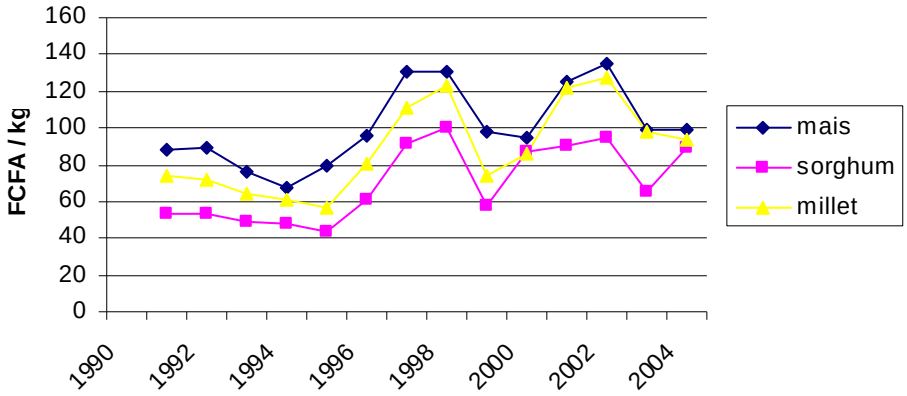


Source: AMIS.

4.2 Real prices

25. The question is to know whether this structural increase in nominal prices has been accompanied by a general increase in inflation and by higher revenues for the people of Niger, or by a loss in real purchasing power. On the basis of an estimate of the inflation rate (source : government of Niger) for Niamey, Graph E 9 shows an increase in real prices : even though the increase is less marked, its development is similar and conveys prices to a higher level. This structural increase in real prices could indicate a lack of food supplies (a deficit that has turned structural) and/or a need to transport food supplies over longer distances and at a higher cost. Unfortunately, there are no reliable data on income trends for the people of Niger, but if per capita agricultural production is taken as an indicator, a reduction in purchasing power suggests itself.

Graph E 9: Real consumer prices for millet, sorghum and maize by year (1990 = base)



Source: AMIS.

5. Millet price trends during the 2004/2005 marketing year

26. The 2004–2005 marketing year, which follows a crop season which produced a considerable deficit is marked by high prices of cereals from its beginning in October 2004 onwards: 103 FCFA/kg as the average millet price at collection and 139 FCFA/kg as the average consumer price, meaning a 26% and 28% difference respectively compared with the same month in the previous marketing year. These high price levels are connected with : i) limited quantities of millet being placed on the market by producers as they have favoured household consumption ; and ii) brisk demand for cereals, not only from the usual collectors but also from consumers wishing to build up family stocks in order to face the lean season.

27. Therefore, the average collection price remained at the same identical level in October as in September 2004. On the Maradi markets, collection prices even showed a 5% rise in October. Since the markets were replenished by local production during this period, the national consumer price remained stable in comparison with September, while in normal years a significant reduction can be noted between the two months. To illustrate this, the monthly reduction recorded in October was 18% on average for the last five marketing years, 9% in the previous marketing year and 6% during the last marketing year that produced a deficit in Niger.

28. In November 2004, the price rises recorded on collection markets in Maradi spread to the other markets: a national average of 7 % on the collection markets and 6% on consumer markets. The level reached by the national consumer price average (147 F CFA/kg) in November, a harvest month, is already nearly the same as that recorded in July 2004 (148 F CFA/kg), which is in the middle of the lean season. Compared to the same month of the last deficit marketing year, the national average is 24% higher. These different elements point to prospective price “tensions” on cereal markets, as millet prices generally do not decrease from November onwards.

29. After being stable in December, prices start to rise again in January 2005, though by a moderate 6%. Only in February 2005 do prices surge by 12%. This continuation of the rise in prices on all the markets monitored by AMIS is connected with the decline in supply combined with growing consumer demand. In addition to the bad production, low imports seem to explain the lower supply on Niger markets. The chief Nigerian cross-border markets

where Niger traders purchase their supplies also face price rises in February. These are, amongst others, (19%), Mai-Adua (+10%), Illéla and Jibia (8% each).

30. Prices continued to rise in March and in April 2005 (8% each). As an explanation for this marketing year's price rises, certain traders suggest the new measures in the Niger 2005 finance law that provide for the extension of VAT to such vital commodities as sugar, wheat flour, etc. This reasoning is not tenable as an explanation for the rise in prices, since these measures do not affect millet, sorghum or maize. Indeed, in March 2005, in order to facilitate the provision of supplies to the country, the government suspended levying the usual duties and taxes on these products (millet, sorghum, maize and cassava flour).

31. In May 2005, prices rose very slightly (+5%). Certain regions showed a relative improvement in supply on the markets because of the first rains. Indeed, they generally occasion sales of stocks both by traders and by producers who have any. Thus, the Zinder region showed an average 5% reduction; the Maradi region also showed local reductions on certain markets. However, compared with May of the previous marketing year and with the average of the last five years, the rise is considerable, averaging 52% and 33% respectively. In comparison with May 2001, prices rose by 11%.

32. Only in June did prices rise considerably again on almost all the markets, by an average of 12% at national level. This situation is explained by the fact that stocks in the major supply centers, which are Maradi, Zinder and Niamey, were exhausted. During this month, most traders in the consumer areas of Tahoua who came looking for millet in Maradi returned without receiving full satisfaction. Prices on this market rose spectacularly and in succession during the month of June. Indeed, the price of a "100kg" sack of millet, which was 20 000 F CFA on this market in week 24 (from 13 to 19 June 2005) had risen to 22 000 F CFA in week 25 then to 26 000 F CFA in week 26; this is a 30% increase in two weeks. Three reasons have been suggested to explain this increase:

33. Firstly, strong demand from Niger economic operators: during this month, a considerable flow of traders looking for cereals was seen. Indeed, within the framework of the reconstitution of national security stocks, the Niger government launched two calls for tender between 29 April and 20 May 2005. The total contract award with these two tenders was 30 000 tonnes of cereals (millet and sorghum). Some of these contracts were signed in June and the ceiling price was 20 000F CFA. It is made quite clear in all these contracts that purchases concern cereals from abroad. To honour these contracts, certain traders drew from their stocks that were originally intended for supplying local markets, others attempted to make their purchases on national markets in view of the difficulties in obtaining cereal supplies in this sub-region. This situation quickly brought about the exhaustion of stocks on the Maradi market, the country's main supply centre. Prices quickly began to rise; prices on the Maradi market went from 18500 F CFA/100kg in week 21 (last week in May) to 19 000 F CFA in week 22, then 20 000 F CFA in week 23 and 22000 F CFA in week 24. With this surge in prices, several deals between the State and economic operators within the framework of the two above-mentioned tenders had to be terminated.

34. Secondly, cereal purchases by certain NGOs and associations to come to the aid of Niger populations experiencing food difficulties have been reported.

35. Finally, the month of June generally marks the beginning of the lean season when supplies largely depend on imports, even during a good marketing year; this year however low import volumes are seen, and this has constituted a further source of inflation.

6. Checklist

6.1 Rapid food security evaluation

36. Within the framework of a future EFSA, the 'price analysis' constituent will involve a general updating of this chapter. The team will collect the monthly 'collection' and 'consumer' prices for the main cereals (millet, sorghum, maize, rice, cow pea) at the Niamey AMIS[24].

37. The analyses to be undertaken concern: i) seasonality: is it in line with the average of the last 5 years or of a crisis year? The key indicators are the consumer and collection prices of millet at the end of October ; ii) the difference between consumer prices for millet at Niamey or in a deficit area, and collection prices in a high production area (Maradi and/or Zinder) and the component parts of the value chain ; this is to evaluate the possibility of an increase in traders' margins contributing to a price increase ; iii) development of consumer prices for millet in the different areas : deficit area, surplus area, average, vulnerable, etc. ; iv) development of cow pea prices ; and v) prices of millet in Nigeria (Jibia), maize in Benin (Malanville), millet in Mali (Ségou) and maize in Burkina Faso (Bobo Dioulasso), evaluated at the price 'landed' in Niamey.

38. Finally, an analysis of livestock prices ought to be conducted in a future EFSA. Even though animal production is not included in this study, an analysis of monthly prices of the main animals (cows, sheep, goats, camels) is indispensable. Information is available from the Niamey SIMB.

6.2 Regular monitoring of markets

39. For monthly price monitoring, it is recommended that the following information be gathered and analysed:

i) Producer and consumer millet price trends in Maradi and Jibia, in comparison with the 'consumer' price in Niamey;

ii) 'Consumer' prices for millet in the deficit areas, such as Téra, Agadez, and Tahoua in comparison with the 'consumer' millet price in Niamey and Maradi;

iii) The trend of a price index representing the value of a certain food basket in the 'vulnerable' areas;

iv) The 'consumer' price of maize in Jibia (Nigeria), Malanville (Bénin), and in Bobo (Burkina Faso) and the price of millet in Ségou (Mali); and

v) The 'consumer' prices of millet, sorghum, maize, rice and cow pea in Niamey.

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40. The first analysis will show : i) which is the principal source of supply for Niamey and therefore of the other parts of the country with deficits; ii) which is the marketing stage and an indication of the level of production in the two main supply areas ; and iii) the development of millet traders' margins. The second analysis will shed some light on the level of prices paid by the populations in deficit areas, which are generally higher than elsewhere. Secondly, the analysis of cereal prices abroad will provide an indication of the situation on supplier markets and of the profitability of cross-border trade. Finally, the last analysis will contribute to the overall monitoring of markets in Niger.

41. These four analyses are sufficient for an overall monitoring of prices during the year. However, if there are some signals blinking, more detailed analyses will be necessary.