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Organización  
de las  
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Unidas  
para la  
Agricultura  
y la  
Alimentación

## COMMITTEE ON WORLD FOOD SECURITY

### Twenty-sixth Session

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### WHO ARE THE FOOD INSECURE ?

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## **I. INTRODUCTION**

1. The WFS Plan of Action in its para 20 (a) requested governments, in partnership with all actors of civil society, as appropriate, to develop and periodically update, where necessary, a national food insecurity and vulnerability information and mapping system (FIVIMS), indicating areas and populations, including at local level, affected by or at-risk of hunger and malnutrition, and elements contributing to food insecurity, making maximum use of existing data and other information systems in order to avoid duplication of efforts.
2. The Committee at its twenty-fifth session agreed that the thematic issue for its consideration in 2000 be “who are the food insecure”, noting that this subject would provide additional information for monitoring the implementation of the World Food Summit Plan of Action and the progress towards the objectives.
3. This paper informs the Committee about the methodology developed and tested in the framework of the FIVIMS initiative by the Secretariat in collaboration with several countries for identifying and characterising who are the food insecure, and it illustrates it with the most advanced results achieved in the case of the country of Benin and the vulnerable group of artisanal fishers in this country.

## **II. LOCATING THE FOOD INSECURE AMONG THE VULNERABLE**

4. The challenge of meeting the World Food Summit goals of halving the number of undernourished by 2015 and promoting food security for all demands that countries design interventions to improve the status of those suffering from hunger. At the time of the Summit these people numbered nearly 830 million in developing countries. Today their number has dropped by only 5 percent, to 790 million in 1996-98.
5. Identifying and characterising the food insecure is necessary for designing and conducting action to improve their situation and reduce their number. But the factors that make people food insecure are the same ones that make people vulnerable to food insecurity. If direct feeding programmes are contemplated, it may suffice to know precisely who the hungry are. But for long-term action to eradicate hunger, it will be important to tackle the factors that create vulnerability and thus to know more precisely who the vulnerable are. Thus, in order to develop effective policies and interventions to reduce food insecurity, planners must take into account both those who are food insecure at present and those who are vulnerable to food insecurity.
6. Vulnerability refers to the presence of factors that place people at risk of becoming food insecure. These factors can be external or internal. External factors have the nature of :
  - Trends, e.g. depletion of natural resources from which the population makes its living, food price inflation;
  - Shocks, e.g. natural disasters, conflict;
  - Seasonality, e.g. seasonal employment opportunities, seasonal incidence of disease.

Internal factors are the characteristics of people, the general conditions in which they live and the dynamics of the household that restrict their ability to avoid becoming food insecure in the future.

7. The difference between food insecure and vulnerable people is one of degree. Vulnerable people have a high probability of becoming food insecure and may fall into food insecurity at any time, as a result of the external or internal factors mentioned above, e.g. as a result of deteriorating soil quality, a flood, a seasonal change in the price of food, an increasing spiral of indebtedness and impoverishment, the loss of an income-earner in the family, the presence of a

chronically-ill person in the household. On the other hand, others may see their situations improve as a result of, e.g., new employment opportunities, obtaining a scholarship for a young family member, reduction in fees required for basic health services, opening of a new farm-to-market road, building of flood dikes in the area.

8. For planning purposes, vulnerable individuals can be grouped into categories of people who share common characteristics. Vulnerability can be perceived in a variety of ways, e.g. primarily economic, geographical, cultural or demographic, etc.

9. Examples of different methods of classifying vulnerable groups that have been used by national FIVIMS, include:

- Occupationally, e.g. artisanal fishers in Vietnam;
- Spatially, e.g. marginal urban dwellers living in shanty towns in Guatemala;
- In relation to their environment, e.g. forest dwellers in Turkey;
- Culturally, e.g. San bushmen in Namibia;
- Demographically, e.g. children under five years in Benin;
- According to social condition, e.g. refugees from Sierra Leone in Liberia;
- Physical condition, e.g. handicapped in Chad.
- In relation to a complex combination of characteristics, e.g. sedentary indigenous urban and semi-urban people living in certain zones of Mauritania. The variety of possible classifications reflects the broad range of factors that affect the food security situation of people, and thus the complex multi-dimensional aspects of vulnerability.

10. Each of these types of classification emphasizes a specific characteristic of individuals that make them food insecure or vulnerable to food insecurity. However, the use of livelihood systems as the entry point for classifying vulnerable groups has proven to be effective in a variety of contexts because various dimensions of vulnerability can be integrated into the categories of livelihood systems.

11. Livelihood systems encompass the capabilities, material and social resources, and activities required for a particular means of living. Livelihood systems can be described by a main source of livelihood that is quite broad. Landless peasants, communal land herders, agro-pastoral farmers on rainfed land, small-scale livestock producers with no land are some examples of broad livelihood systems that have been used for classifying people into vulnerable groups.

12. A livelihood system is classified as vulnerable when the system is exposed to various factors that create risk for most people belonging to that system. Within any livelihood-based vulnerable group some people will be more vulnerable than others. Those most likely to be food insecure are those who are economically dependent or otherwise socially marginalised.

These include:

At the individual level:

- the elderly
- orphans
- invalids
- pregnant and lactating women and young children

At the household level:

- female-or elderly-headed households
- households belonging to minority groups.

13. Because of its general applicability, and the availability of good methods for using livelihood systems to profile vulnerable groups, this entry point has been used by FAO in developing the approach for profiling vulnerable groups reported in the next section.

### III. METHOD FOR PROFILING VULNERABLE GROUPS

14. FAO has been developing instruments, procedures and techniques that planners can use to identify food insecure and vulnerable people and to classify them into groups. A major result of this effort has been the development of a method for profiling vulnerable groups. Through the development of vulnerable group profiles, it is possible to identify the food insecure and vulnerable people in a country, where they are located, how many they are and the reasons that they are in this precarious state. This information can then become the basis for policies, programmes and projects to reduce the numbers of food insecure and vulnerable people.

#### A. NATIONAL BRAINSTORMING SESSIONS

15. Vulnerable group profiling builds on the work that has already been done by FAO under the FIVIMS initiative. To begin the work of finding out who is food insecure and vulnerable to food insecurity, the secretariat in early 1999 began to encourage countries to hold interdisciplinary brainstorming sessions to establish an initial identification and characterisation of vulnerable groups.

16. While a review of secondary literature may also be useful for this purpose, the interdisciplinary brainstorming sessions have been found to be especially fruitful. People who know their country well often bring perceptions and insights to an oral discussion that are missed when carrying out a more formal study. The process is often enlightening to the participants and creates a solid base of support for continuing the investigative work about the groups that have been identified. Through this process, vulnerable groups have thus far been identified in 14 countries. The results of this work, obtained as of mid-1999, were presented in document CFS:99/Inf. 6 last year.

17. In the draft *FIVIMS Guide for Finding Out Who the Food Insecure Are* (CFS:2000/Inf.10), suggestions are made for the conduct of such sessions in all countries that have decided to establish a national FIVIMS. Depending on the size of the country and the degree of decentralization, it may be more useful to have the brainstorming sessions take place on the sub-national (e.g. provincial) level. The brainstorming sessions should result in a first identification, classification and characterisation of the food insecure and vulnerable people, including their location in the country, their main sources of livelihood, demographic characteristics, and dietary patterns, as well as an initial analysis of the factors that make these people food insecure and vulnerable to food insecurity.

#### B. CLASSIFICATION OF VULNERABLE GROUPS

18. After the brainstorming session, it is important to construct a classification system for the identified vulnerable groups that uses a consistent set of criteria for characterising all vulnerable groups in the country. The classification of vulnerable groups has to ensure that they are distinct and mutually exclusive. This is essential to avoid double counting in the enumeration of vulnerable people and to prevent un-intended overlap of targeted programmes on certain parts of the food insecure population.

19. For example, some countries have identified specially vulnerable demographic groups, such as pregnant and lactating women and under-five children. Such demographically characterized individuals most likely belong to other groups that have already been classified according to a livelihood system. Usually not all pregnant and lactating women in a country are vulnerable, but only those belonging to households that are in a precarious situation. In such countries, their special vulnerability would be highlighted in the profile of the livelihood-based vulnerable groups to which they belong.

20. Some countries have created a category for destitutes that covers dependence on family gifts, on charity, on begging, on petty crime, etc. as sources of livelihood. In this case, destitutes

that belong to communities practising other occupations would not be classified as belonging to the livelihood system of their community, but rather to the livelihood system “destitutes”.

### **C. ESTIMATION OF THE NUMBER OF PEOPLE IN EACH GROUP**

21. Estimating the approximate number of people in each vulnerable group can be done through a number of means. Often experts and people working with the identified groups can give a rough estimate of how many people belong to that group. Data from the latest national surveys, such as the population census or an agriculture census, can be used to estimate the number of vulnerable people in each group. If these methods are not feasible or satisfactory, it may be necessary to conduct a sample survey of each group.

### **D. THE NEED FOR SUB-GROUPS**

22. After the initial classification of vulnerable groups into broad categories, it is usually necessary to further refine this classification by dividing the broad categories into sub-groups. In the initial categories, there may be significant differences among the households as regards various factors affecting the food security status and therefore the degree of food insecurity and vulnerability of these households. For example, in Vietnam, a brainstorming session identified “marine fishers” as a broad category of vulnerable people. Subsequently, this broad category was divided into four separate sub-groups, each with its own vulnerability and food insecurity characteristics: beach scavengers and diggers, on-shore fishers, near-shore fishers with a boat, and far-shore fishers.

23. In the final classification system, each sub-group should represent a separate, clearly distinguishable group of people. Each sub-group should also be characterised by a large degree of homogeneity among the households as to their livelihood system, livelihood strategies and food security status (i.e. at-risk, transitory food insecure, seasonally food insecure or chronically food insecure).

24. Because of the relatively high level of homogeneity within each sub-group, it should be possible to develop a profile of typical characteristics of households belonging to the sub-group, (where a household is defined as a group of people living on the same incomes and sharing the food). Not all households will possess each of these characteristics, but the general characterisation should permit identification of the main vulnerability factors affecting most households in the group.

### **E. DETERMINING THE FOOD SECURITY STATUS OF PEOPLE WITHIN EACH SUB-GROUP**

25. Once sub-groups have been established, it may be possible to make an initial broad estimation of those that are food secure and those that suffer from or are at risk of food insecurity. One method for determining this is by finding out how many within the vulnerable group have an estimated income well above the poverty line. These are probably the food secure. Among the vulnerable a simple self-assessed hunger-scoring method, for instance, can be used in the absence of more detailed survey data to determine those who are actually hungry and those who are only at risk.

### **F. DEVELOPING VULNERABLE GROUP PROFILES**

26. Understanding the factors that explain the vulnerability of a particular group requires a detailed characterisation of the group. This can be done through profiling each vulnerable group identified at the national or sub-national level.

27. A vulnerable group profile contains:

- description of the broad livelihood system to which the profiled group belongs and if desired, an estimate of the number of people belonging to that group
  - location of the areas where the households of the group live (with a map if possible)
  - a minimum information set for the vulnerable group showing typical characteristics of households belonging to the group and information about the various factors that affect the household's food security situation and the household members' access to the food as well as their health status and uptake of food. These factors usually derive from the household's assets and livelihood strategies, the broader contextual factors that impinge upon it and the trends and shocks to which it is subject.
  - a brief analysis of possible action areas. Identifying possible action areas that could contribute to the improvement of the food security status of the people of a vulnerable group is a three step process, including:
    - A vulnerability analysis. This analysis consists in extracting, from the set of information, the factors and constraints that negatively affect households' food security situation, and individual household members' access to food as well as their health status and uptake of food. The analysis should show how assets, external factors and livelihood strategies combine to create a situation in which households are food insecure or at risk of becoming food insecure.
    - An evaluation of opportunities. Opportunities are the positive factors that exist for a food insecure or an at-risk household in their own asset structure or in the external environment, which could potentially contribute to an improvement of the food security status of the household if properly developed. An evaluation of opportunities takes into account the positive characteristics or strengths of a livelihood system. For example, the existence of strong kinship in an artisanal fishing community may be used to promote communal forms of credit.
    - An identification of broad areas of interventions and recommendations for action. Recommendations might include, for example, safety net programmes, development programmes and projects, and analysis of current assistance programmes and their relevance to the proposed actions.
28. FAO is in the process of developing guidelines and methods for carrying out the specific tasks involved in vulnerability profiling for use by countries.

#### **IV. EXAMPLE OF VULNERABLE GROUP PROFILING FROM BENIN**

29. A number of countries are in the process of carrying out vulnerability profiling, with the assistance of FAO. To initiate this work FAO reviewed the vulnerable groups that had been identified in a large number of countries to determine the extent of commonalities and differences. Based on this review it was decided to initiate profiling work for the same category of vulnerable groups simultaneously in several countries. The category selected for this purpose was artisanal fishermen and the countries where work began in 2000 were Benin, Guatemala and Vietnam. This section presents some of the results for Benin.

##### **A. A CATEGORY OF VULNERABLE PEOPLE : ARTISANAL FISHERS**

30. Artisanal (small-scale) fisherfolk are an example of a livelihood system that is common throughout the world and is becoming increasingly vulnerable to food insecurity. For these reasons and because of the availability of relevant data, artisanal fishers were the first vulnerable group to be profiled using the new approach.

31. Comprising about eight million people or more than half the number of seagoing fishers world-wide, they work from unmotorized boats without decks and/or cast large nets from the beach. Unlike large-scale fishing fleets that remain at sea for days or weeks at a time, most artisanal fishers return to shore each day with their catch.

32. Artisanal fishing may be practiced at sea or in inland rivers and lakes. Whereas fishing off the coast of oceans and large lakes is usually a full-time occupation, fishing in small inland waters is more often practised on a part-time basis

33. Coastal artisanal fishing is a communal activity centred around the village landing site from whence boat crews set out each day. Buyers and sellers congregate at the landing; close by, women clean and smoke or dry part of the catch.

34. Marine fishing communities are closely-knit social units, often comprised of a few large extended families proud of their fishing tradition. However, these communities often are isolated from the rest of society and thus tend to be marginalized. Artisanal fishers constitute one of the weakest livelihood groups in terms of market power and political influence.

35. Specific factors contributing to their vulnerability include:

- poor fisheries management;
- competition with tourism and nature preserves for access to beach front and near-shore waters;
- dangerous working conditions (including exposure to weather extremes) which lead to high mortality rates, especially on the high seas;
- apprenticeship method of acquiring skills, which requires boys to leave school at an early age;
- lack of skills transferable to more productive sectors;
- lack of investment capital and consequent low return on labour;
- seasonal variations in income and food availability;
- ill health due in part to poor quality drinking water, inadequate shelter and high incidence of communicable disease

## **B. VULNERABLE GROUPS IN BENIN**

36. A national brainstorming session was held in Benin in May 1999 with 40 participants representing all regions and sectors of society. Chosen for their practical knowledge and experience of food security conditions in the country, the participants identified 11 groups vulnerable to food insecurity and provided preliminary information about:

- where they live;
- their main sources of livelihood;
- the nature of their food insecurity;
- the foods they typically eat;
- factors making them vulnerable to hunger and malnutrition.

Annex 1 shows the results obtained in the form of a table which is recommended for use by other countries carrying out similar exercises.

37. Based on the information that came from the workshop, FAO refined the classification of the identified groups using a livelihood-based approach. The proportion of the total population falling in each vulnerable group was then estimated based on recent survey information. This showed that almost half of the population (48 %) is vulnerable to food insecurity. FAO estimates that about a third of these vulnerable people are currently undernourished. Details are shown in Annex 2.

## **C. PROFILE OF ARTISANAL FISHERS IN BENIN**

38. Artisanal fishers are found along the shores of Benin's lakes, rivers and lagoons and sea coast. According to government surveys artisanal fishers represent almost 8% of Benin's population. Those profiled live in the numerous coastal artisanal fishing settlements along the Atlantic Ocean, west of Benin's capital, Cotonou.



39. Within the livelihood system of artisanal fishers there are many subgroups and within them, differing degrees of vulnerability to food insecurity. In Benin there are three sub-categories of coastal artisanal fishers:

- those living in lagoon villages, who have access to cultivable land;
- nomadic fishers, known as “Ghanaians”, who move from one beach to another during the course of the year; and
- full-time sedentary fishers without agricultural land.

40. Of these the last sub-group is considered the most vulnerable. Among these the most food insecure are those who do not own any equipment or gear, get income mainly from the man’s wages as a fishing crew member, and lack cash to pay for ceremonies.

41. The table shown in annex 3 presents the minimum information set giving the typical characteristics of households belonging to this sub-group, particularly the worst-off people within it. It is based on information obtained from recent field survey data and assessment reports, and interviews with knowledgeable experts.

42. Preliminary analysis of this information suggests that health issues represent one of the most important vulnerability factors for this group. Malaria is endemic and causes significant losses in productivity in both men and women, as well as keeping children from school. Diarrhoea and respiratory infections are common especially during the rainy season. Children are weaned very young and the typical weaning foods are not nutritionally balanced. Although these problems could be addressed through community-based action programmes, people belonging to this group have complained that the large number of well-intentioned interventions using participatory methods is leading to conflicting priorities and excessive demands on their time. Thus effective action would require unifying interventions, possibly under the district development council.

43. The high-level of indebtedness of the food insecure households in the sub-group is an impediment to progress. Although women belong to small social insurance schemes, contributing small amounts and borrowing in time of need, these funds do not represent an adequate capital asset for escaping from the need to borrow to buy food during the low fishing season. Further, as noted above, in the food insecure households the men do not possess any capital. Their wages are low and breaking out of the debt and impoverishment trap is difficult.

44. The profiling exercise in the first three countries, Benin, Guatemala and Vietnam, is still ongoing. A more formal analysis of action priorities will be developed by each country at the end of the exercise.

## **V. MAIN CONCLUSIONS AND RECOMMENDATIONS**

45. In characterising who are the food insecure, the dividing line between people actually undernourished and people belonging to population groups vulnerable to food insecurity can only be established through detailed investigation within the vulnerable groups. For practical purposes, the recommended methodology aims at identifying and characterizing vulnerable groups within a country, i.e. groups of population that are containing a high proportion of households and individuals suffering from or exposed to food insecurity.

46. The use of livelihood systems as the entry point for classifying vulnerable groups has proven to be effective in a variety of contexts because various dimensions of vulnerability can be integrated into livelihood system categories.

47. Interdisciplinary brainstorming sessions at national or sub-national level allow for a cost-effective initial identification and characterisation of vulnerable groups. A consistent system of criteria needs to be developed to ensure, to a reasonable degree, comprehensiveness and lack of double-counting in defining the groups.

48. A minimum information set permits the profiling of each vulnerable group, i.e. where they are located, how many they are, and the reasons they are in a precarious state. This information can become the basis for policies, programmes and projects to reduce the number of food insecure and vulnerable people.

49. The method has been applied in 14 countries and the profiling of vulnerable groups initiated in three of them. It is proposed for more general implementation as part of the start-up FIVIMS activities at national level.

## ANNEX I: TABLE FOR REPORTING RESULTS OF NATIONAL BRAINSTORMING TO IDENTIFY VULNERABLE GROUPS, AND RESULTS FOR BENIN

### Profile of main groups identified as vulnerable to food insecurity in Benin

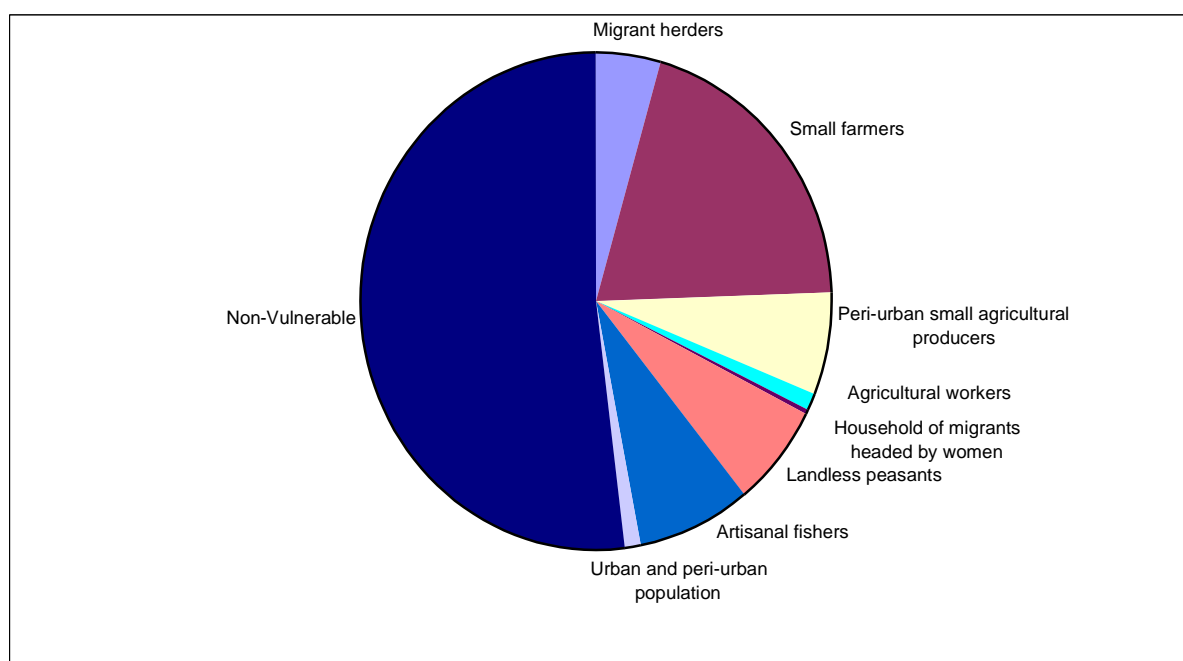
Location & agro-ecological zones	Vulnerable groups	Main livelihood strategies of the group	Nature of food insecurity	Staple foods consumed by the group	Major causes of group vulnerability	Factors aggravating the vulnerability of the group	Appropriate monitoring indicators
ZONE 1: EXTREME NORTH BENIN  <u>Sub-prefectures</u> (Karimama, Malanville),  <u>Climate</u> : sudano-sahelian Arable land area 3 460 Km <sup>2</sup> - agro-pastoral production system	<b>Migratory herders</b>	- Tending herds belonging others - Sale of milk products	Chronic	- Milk (basically) - Sorghum and millet	- Fragility of systems of livelihood - Economic dependence on livestock owners	- Variability of climatic conditions - Disputes between herders and farmers over seasonal pastures	- Size of herd - Productivity of herd - Rainfall
	<b>Small farmers</b>	Production de sorghum, millet, cowpea Small livestock raising as a supplementary activity	Seasonal	- Cereals (sorghum, millet, rice) - Cowpea	Low production capacity (lack of training/information, access to credit and equipment...)	- Presence de predators (birds, migratory locusts) - Variability of climatic conditions - High post-harvest losses (limited commodity storage and preservation capacity)	- Yield - Crop productivity - Size of holding - Size of herd
2- COTTON GROWING ZONE NORTH BENIN  <u>Sub-prefectures</u> (Banikoara, Kandi, Kérou, Cogonou, Ségbana)  <u>Climate</u> : sudanian Ideally suited for cotton growing (other crops: maize, millet/sorghum, groundnut)	<b>Migratory herders</b>	- Herding, increasingly sedentary (better organized production) - Limited food crop production for household consumption	Seasonal	- Milk - Cereals (sorghum, millet)	Economic dependence and marginalization	- Variability of climatic conditions - Disputes between herders and farmers	- Size of herd - Productivity of herd - Rainfall
	<b>Small farmers</b>	- Food crop production plus: cash crops (cotton); or petty trading in border areas; or small livestock; or seasonal labouring	Seasonal	- Sorghum, millet, rice - Cowpea and yam	- Low production capacity - Lack of training/information	- Risk of debt linked to purchase of inputs for cotton growing - Use of largely inappropriate cropping techniques and practices	- Yield - Crop productivity - Size of holding - Size of herd
	<b>Agricultural labourers</b>	- Seasonal migration to seek work during cropping season	Seasonal	The migrants/labourers receive board and lodging from the local farmers	- Insufficient income - Inappropriate allocation of work income	- Prestige expenditures	- Migratory flows per village - Size of households
3- FOOD CULTIVATION ZONE OF SOUTH BENIN  <u>Sub-prefectures</u> (Kouandé, Tanquiéta, Simendé, Denbéréké, Karalé, Nikki, N'Dali, Pèrètè)  <u>Climate</u> : sudanian	<b>Small farmers</b>	- Agriculture with animal traction (sorghum, millet, maize, yam) - Petty trading in border areas - Seasonal hiring of animal traction, so less wage labour than in zone 2 - hunting for household consumption and sale	Seasonal	- Sorghum, millet, yam, maize	- Low production capacity	- Breakdown of traction equipment - Sickness of draught cattle	- Importance of animal traction - Crop productivity - Size of holding - Size of herd (draught cattle)
	<b>Migratory herders</b>	- Herding, increasingly sedentary (better organized production) - Limited food crop production for household consumption	Seasonal	- Milk - Specific food products (sorghum, millet)	Economic dependence and marginalization	- Variability of climatic conditions - Disputes between herders and farmers	- Size of herd - Productivity of herd - Rainfall
	<b>Agricultural labourers</b>	- Seasonal migration for agricultural wage labour	Seasonal	The farm labourers receive board and lodging from the local producers	- Insufficient income - Inappropriate allocation of work income	- Prestige expenditures - Spread of animal traction (competition)	- Migratory flows per village - Importance of animal traction - Size of households
4- WESTERN ZONE - ATACORA  <u>Sub-prefectures</u> (Tanquiéta, Matéri, Coby, Boukoubmé, Tokountouna, Copargo, Ouaké, Djougou)  <u>Climate</u> : Sudano-sahelian with low-fertility soils	<b>Families of migrants headed by women</b>	- Processing of agricultural commodities (notably sorghum into the local beer 'tchoukoutou') - Food crop production around the home - Remittances from husbands migrated as seasonal farm labourers - Supplementary activities (petty trading, small livestock raising)	Chronic	- Sorghum, millet, fonio, cassava - rice (small quantities)	- Cultivation of infertile and degraded soils - Insufficient income - Social status of women, heads of household but with limited decision-making capacity/authority	- Migration of husband - Large quantities of sorghum used to make the local beer 'tchoukoutou' - Prestige expenditures with income of returning migrant husband	- Migratory flows - Level of malnutrition - Micronutrient deficiencies - Size of households
	<b>Small farmers</b>	- Agriculture (basically food crops) - Supplementary activities (small livestock, hunting, petty trading, processing and sale of local beer 'tchoukoutou')	Seasonal	- Sorghum, millet, fonio, cassava - rice (small quantities)	- Low fertility of soils - Degradation of cropland - Very low production capacity	- Variability of climatic conditions	- Productivity - Rainfall - Level of soil fertility
	<b>Migratory herders</b>	- Herding, increasingly sedentary	Seasonal	- Milk - Sorghum, millet, fonio, maize - rice, yam	Economic dependence and marginalization	- Variability of climatic conditions - Disputes between herders and farmers	- Size of herd - Productivity of herd - Rainfall

Location & agro-ecological zones	Vulnerable groups	Main livelihood strategies of the group	Nature of food insecurity	Staple foods consumed by the group	Major causes of group vulnerability	Factors aggravating the vulnerability of the group	Appropriate monitoring indicators
5- COTTON GROWING ZONE OF CENTRAL BENIN  <i>Sub-prefectures</i> (Bassila, Tchaourou, Dopa, Ouèssè, Glazoué, Savè, Dassa-Zoumé, Adja-Ouèrè, Kétou, Anplahoué)  <i>Climate:</i> sudano-guinean	<b>Small farmers</b>	- Agriculture (groundnut, cotton) based essentially on reciprocal help (system of exchange of labour) - Supplementary activities (small livestock, petty trading, hunting, processing of agricultural food products)	Seasonal	- Sorghum, millet, fonio, maize, rice - Yam and other non traditional root crops	- Low production capacity - Inappropriate cropping practices	- Variability of climatic conditions	- Yield - Productivity - Rainfall
	<b>Migratory herders</b>	- Tending herds belonging to others	Seasonal	- Milk, yam - Maize, cassava, sorghum (in the North)	Economic dependence and marginalization	- Serious disputes between herders and farmers - Variability of climatic conditions	- Size of herd - Productivity of herd - Rainfall
	<b>Agricultural labourers</b> (residents)	Wage labour supplemented by hunting (wives process agricultural food products)	Seasonal	- Maize, sorghum - Bean/cowpea - Roots and tubers (cassava, sweet potato, yam)	- Insufficient income - Difficult access to land - Lack of production inputs	- Inappropriate allocation of low incomes - Prestige expenditures	- Size of households - Income
	<b>Landless peasants</b>	- Casual work (labouring) - Supplementary activities (share cropping, petty trading, processing of agricultural products)	Chronic	- Roots and tubers (cassava, sweet potato) - Sorghum, millet, fonio, maize, rice	- Difficult access to land because of inheritance system - High population pressure - Lack of production inputs	- High economic dependence	- Per capita availability of cropland - Size of households - Income
	<b>Urban marginal population</b> (young without schooling, unemployed, recent migrants)	small trades (crafts), petty trading and casual work in local urban centres	Chronic	- Bread, gari - Street food	- Absence and precariousness of work - Rural outmigration	- Urbanization - Negative impact of macroeconomic measures	- Level of unemployment - Level of delinquency and crime
6- "TERRE DE BARRE" ZONE  <i>Sub-prefectures</i> (Agbengnizoun, Bohicon, Za-Kpota, Covè, Zagnanado)	<b>Families of migrants</b> (in Nigeria)	- Processing of agricultural food products - Remittances from migrant husbands in Nigeria - Supplementary activities (petty trading, small livestock raising, food crop production around the home)	Chronic	- Millet, maize, cassava - Other root crops	- Cultivation of highly degraded soils - Insufficient income - Insufficient land resources	- Migration of husband (head of household) - Prestige expenditures	- Migratory flows - Level of malnutrition - Micronutrient deficiencies - Size of households
	<b>Small farmers</b>	- Subsistence farming - Seasonal labouring - Supplementary activities (hunting, small livestock, poultry raising)	Chronic	- Maize, cassava, cowpea - Other root crops	- Poor soil fertility - Insufficient land resources	- Lack of training/information - Inappropriate allocation of limited income	- Size of holdings - Per capita availability of arable land
	<b>Landless peasants</b>	- Casual work (labouring) - Supplementary activities (share cropping, petty trading, processing of agricultural products)	Chronic	- Cassava, sweet potato - Sorghum, millet, fonio, maize, rice	- Difficult access to land because of the inheritance system - Precariousness of household income - High population pressure - Lack of production inputs	- High economic dependence	- Per capita availability of arable land - Size of households - Income
	<b>Urban marginal population</b> (young without schooling, unemployed, recent migrants)	Trades and crafts, petty trading and casual work in local urban areas	Chronic	- Street food - Bread, gari	- Absence and precariousness of work - Rural outmigration - Precarious and insufficient income	- Urbanization - Adverse impact of macroeconomic measures	- Level of unemployment - Level of delinquency and crime
7- TROUGH ZONE  Troughs of Tchi, Lama, Zou, Issaba, Toffo and Lalo	<b>Small farmers</b>	- Subsistence farming on hydromorphic soils - Casual labouring - Supplementary activities (small market gardening, hunting, small livestock, poultry keeping)	Chronic	- Maize, cassava, cowpea - Cassava, yam and other root crops	- Difficulty in cropping the vertisols - Very high land pressure - Lack of land resources (low availability)	- Heavy land speculation - Inappropriate allocation of low incomes	- Size of holdings - Cultivated area per inhabitant
	<b>Landless peasants</b>	- Casual work (basically labouring) - Supplementary activities (share cropping, petty trading, processing of agricultural products)	Chronic	- Cassava, sweet potato, yam - Sorghum, millet, fonio, maize, rice	- Very difficult access to land - Heavy land pressure - Lack of production inputs	- High economic dependence - Precariousness of household incomes - Heavy land speculation	- Availability of cropland per capita - Cultivated area per inhabitant - Size of households - Income

Location & agro-ecological zones	Vulnerable groups	Main livelihood strategies of the group	Nature of food insecurity	Staple foods consumed by the group	Major causes of group vulnerability	Factors aggravating the vulnerability of the group	Appropriate monitoring indicators
8- FISHERIES ZONE  River and lake region of the departments of l'Atlantique, Mono and Ouémé, and the coastal strip	<b>Artisanal fishers</b>	- Artisanal fisheries - Sale and processing of fishery and agricultural products - Supplementary activities carried out by wives (processing/sale of coconut, soap, palm oil...)	Chronic	- Fish  - Maize, cassava, gari	- Filling-in of lakes and lagoons - Inappropriate fishing techniques - Depletion of fish stocks	- Disputes between fishers - Lack of information/training	- Size of catches - Sources and levels of income
	<b>Urban and periurban marginal population</b> (young without schooling, unemployed, motorcycle-taxi drivers, recent migrants)	- Casual work - Petty trading and processing of agricultural and fishery products - Periurban share cropping	Chronic	- Street food  - Bread, gari	- Unemployment  - Precariousness of work  - Population pressure	- Adverse impact of macroeconomic measures - Increased urbanization	- Level of delinquency - Level of unemployment - Sources and levels of income
	<b>Periurban small agricultural producers</b>	- Subsistence agriculture, including market gardening - Diversification of income (processing and sale of fishery products, production of marine salt, processing of agricultural products)	Chronic	- Fish, maize, cassava, gari, cowpea	- Insufficient arable land - High population pressure - Low incomes	- Land speculation	- Size of plots - Sources and levels of income
High-risk population groups identified in rural and urban areas	<b>Women of child-bearing age</b> (pregnant, nursing, not pregnant/nursing)	- Petty trading  - Processing of agricultural and food products	Seasonal and/or chronic	- Staple foods specific to locality	- Physiological condition of nursing and pregnant women  - Social status of women	- Relatively high additional workloads  - Limited decision-making authority of women in the allocation of household income	- Anthropometric measurements - Incidence of micronutrient deficiencies - Maternal death rate
	<b>Children below 5 years</b>	Dependence on the relatively limited resources and incomes of parents	Seasonal and/or chronic	- Mother's milk  - Food supplement (pap, etc.)	- Physiological condition of children  - Dependence on low incomes and dietary habits of the family	- Health status linked to hygiene of surroundings (access to safe water, sanitation)	- Anthropometric indicators - Incidence of major disease - low birthweight (<2.5 Kg) - Infant morbidity and mortality rate
	<b>Elderly</b> (>60 years)	Variables : - dependence on the resources of relatives - petty trading practices	Seasonal and/or chronic	Staple foods specific to social group	- Physiological condition of the elderly - Social status of the elderly - Dependence on incomes and dietary habits of relatives	- Health status linked to hygiene of surroundings  - Degree of autonomy of the elderly	

## ANNEX II: ENUMERATION OF VULNERABLE PEOPLE IN BENIN AND FORMAT FOR VULNERABLE GROUP CATEGORIES AND SUB-GROUPS.

1. From census data and other survey results, a tentative enumeration of the number of people has been conducted in each of the broad categories of vulnerable groups identified in Benin (see annex I). The chart underneath shows the proportion of the national population represented by each of these broad categories.



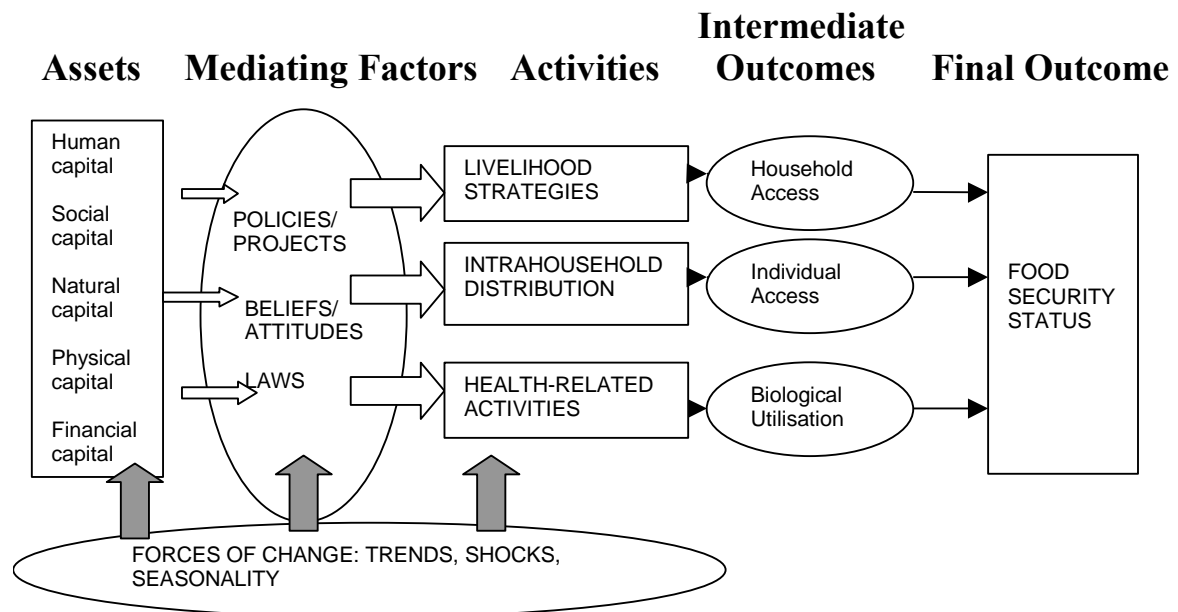
Note: Three cross-cutting vulnerable demographic groups, i.e. children under 5, women of childbearing age and elderly, are found in all vulnerable livelihood groups.

2. A format is suggested below to present the further refinement of the classification of vulnerable people into sub-categories. In the case of Benin, such a refinement was carried out for the broad vulnerable group identified as “artisanal fishers”.

Broad Vulnerable Group Category Based on Occupation Code	Vulnerable Sub-groups Based on Homogeneous Household Types	Nature and Degree of Food Insecurity	Location	
			Inland rivers and lakes	Coastal areas
Artisanal Fishers	In-land artisanal Fishers	At-risk	Lowlands of the Départements de l'Atlantique, Mono et Ouémé	
Artisanal Fishers	Full-time Transhumants Fishing Communities ("Ghanaians")	Food-secure		All coastline
Artisanal Fishers	Full-time Sedentary Fishing Communities	Food-insecure		Especially along the coastline from Cotonou to Grand-Popo
Artisanal Fishers	Part-time Sedentary Fishing Communities ("Lagoon Villagers")	At-risk		Lagoon areas close to Cotonou

### ANNEX III: FORMAT FOR PRESENTING MINIMUM FOOD SECURITY INFORMATION SET, AND RESULTS FOR BENIN

1. The minimum food security information set contains the minimum information needed to characterize vulnerable groups and understand the causes of their vulnerability in a way that points to actions. The information refers to the asset structure of households belonging to the group, the external and internal factors affecting their livelihood strategies, their own behaviors, and their food security status.



The diagram above illustrates the relationship between the various entry points to analysing food security and the different information subsets. It is further developed below.

2. Livelihood assets are the factors typically used to build and support people's livelihoods. They include:

- Human capital: the skills, ability to labour and good health that enable people to pursue livelihood strategies. Without human capital, people are unable to effectively use other types of capital. Examples are: the number of productive workers within the household in relation to the number of dependents; the skills and educational levels of the household members; the health status of members.
- Social capital: the set of relationships that people have with other people and groups of people that support or constrain them in earning a living. Examples are: relationships between the household and patrons, powerful community members, kin.
- Natural capital: the natural resources that a household, along with the rest of the community, has access to and rights over, and the ecosystem essential to the life of these resources. Examples are: water, fish, commonly held land, trees.
- Physical capital: the infrastructure, the tools or equipment, and the resources that support a household's livelihood. Physical capital can be privately owned or publicly owned. Examples are: privately-owned land, crops, livestock; publicly-owned roads, water supply systems, health clinics, markets.

- Financial capital: the financial resources that a household draws on to achieve its livelihood strategies. Examples are: cash, savings, credit.

A household's lack of, or limited access to, any of these capital assets and the poor quality of assets may contribute to a household's vulnerability to food insecurity.

3. Mediating factors influence the way that people combine assets to achieve particular livelihood strategies. These factors may have either positive or negative effects. Mediating factors include:

- Laws and policies: the rules, regulations and policies that affect the household's access to assets and influence how these assets are gained and traded, as well as the final outcome of the household's livelihood strategy; and the institutions responsible for designing and implementing these. Laws and policies can be protective or restrictive. Examples are: national development policies, licensing arrangements.
- Beliefs and attitudes: the set of commonly held beliefs that are particular to a culture and context, and which influence the way the household combines assets, the type of livelihood strategies it chooses, health-related practices, and the way food is distributed within a household. Examples are beliefs that restrict the eating of certain foods by certain household members at given times; beliefs about gender roles.

4. Livelihood strategies are the sets of productive, exchange and consumption activities in households engage. Each livelihood strategy draws on a combination of assets described under livelihood assets. Livelihood strategies may be affected by seasonal variations which are described under factors of change. Livelihood strategies include:

- Income-generating activities: the set of activities the household engages in to generate cash income. Examples are: sale of crops, paid employment.
- Patterns of expenditure: what the household spends its income on, in proportion to total income, taking into consideration seasonal variation. Examples are: food, tools, loan repayments, education, health.
- Sources of food: where the household obtains the food it consumes. Food may be produced, received from exchange or as gifts, or purchased. Examples are: market purchase, own crop production, wild food, food aid.
- Short-term coping mechanisms: the strategies a household employs in times of stress, as a response to adverse changes in the environment in which it lives. Examples are: changes in food patterns, increased reliance on remittances, loans.

5. Health-related activities include the set of activities that affects the health and biological utilisation of food by household members. These include:

- Care practices: the type of care given to infants and children under 5, and to the elderly, ill or disabled within the household. Examples include breastfeeding and weaning practices; food preparation.
- Health and hygiene practices: the practices related to the household's access to and use of water, latrines, washing, footwear, traditional and western medicine. Examples include boiling water; location of latrines.

6. Forces of change include factors that may affect the household's assets, strategies, or activities at different times. These include:

- Trends: changes over time that affect the production, exchange and consumption activities of the household. These can be negative or positive. Examples are: decrease in access to markets, increased population density, rise in environmental degradation, increased outside investment and employment opportunities, increase in number of people getting vaccinated.
- Shocks: sudden and forceful changes in the external environment that have a dramatic (and usually negative) impact on people's livelihoods. Examples are natural disaster, outbreak of war, currency devaluation, outbreak of disease.



- Seasonality: changes in the availability of and access to resources and activities, in people's status, and in processes that occur on a seasonal basis. Examples are: seasonal demand for agricultural output, seasonal availability of types of food, seasonal diseases, seasonal changes in market prices.
7. Measurable outcomes indicate the status of a household's access to food, individual access to food, and biological utilisation of food. These include:
- Nutritional status: anthropometric indicators.
  - Health status: disease patterns, morbidity and mortality rates.
  - Food intake: average dietary energy intake, micro and macro nutrient intake.
  - Household income and expenditure level: per capita income, sources of income, household budgets.

### *Minimum Information Set<sup>1</sup>*

#### **LIVELIHOOD ASSETS**

##### **HUMAN CAPITAL**

A typical household has 2 income earners, 1 male and 1 female, and 4-5 dependents, of which at least 1 is under five. (N)

At any given time, at least 1 household member is likely to be suffering from malaria. (A)

Recurrent malaria lowers productivity and wage-earning capacity of adults, and puts normal growth of children at risk.

School is free and schoolage children are enrolled. (P)

Availability of free schooling is an asset, although if the quality of the schooling is poor, the value of this asset would not be very great.

Children attend school irregularly. (A)

Reasons for this are not known, but may be due to illness, other claims on their time (boys usually go to sea at an early age), inability to pay for suitable clothing or school supplies and low priority accorded to education by the family. Other members of the household are uneducated.

Gender roles are clearly defined. The mother is responsible for the kitchen garden, care of children and provision of food other than fish. The father is responsible for providing fish and covering extra cash costs such as school fees, clothes, ceremonies and gifts. (N)

##### **SOCIAL CAPITAL**

The mother is a member of a tontine ( a traditional kind of social insurance society to which women belong, paying in regular fees and obtaining various forms of social support in times of need). (P)

The father receives part of the daily fish catch as gift from the boat owner. He has strong links with other members of the fishing unit. (P)

Strong traditional social support systems provide a safety net for the very poor.

##### **NATURAL CAPITAL**

Access to the sea and to landing areas on the beach is free. (P)

The sea has traditionally provided a

sustainable source of livelihood for maritime fishing communities. However, this is now threatened by incursions of industrial fishing fleets and depletion of ocean-going fish stocks.

Mangroves provide firewood that is used for cooking and smoking fish; coconut tree trunks are used for shelter. (P)

Current rates of use of this valuable natural resource are sustainable.

##### **PHYSICAL CAPITAL**

The household owns its own shelter (made out of coconut trunks). (N)

The mother uses the land near to its shelter for a kitchen garden where tomatoes, onion and green vegetables are grown. (N)

The household does not own any animals. (N)

The father does not own any fishing equipment. (A)

Crew members without equipment get paid lower wages than those with equipment.

There is a basic healthcare unit nearby, but it is rarely used. (A)

The reasons for this are not clear, although inability to cover costs of drugs may be a factor.

There is a road that goes along the coast. (P)

Traders collect smoked fish from landing sites for sale in urban markets.

Water is available from wells in the village.(P)

Ample water supplies mean that this basic need can be met at no cost to the households.

##### **FINANCIAL CAPITAL**

The household has no private savings. (A)

Lack of capital prevents father from investing in fishing gear and improving his income. Lack of cash during rainy season also forces the mother to buy food on credit.

The mother owns a stake in the revolving fund of the tontine. (P)

The tontine revolving fund is a form of traditional social insurance to which women contribute small amounts and from which they can borrow in time of need.

<sup>1</sup> The codes found at the end of each point in the above text indicate that the expected impact of that variable on food security is neutral (N), potentially adverse (A), or potentially positive (P). Entries for which no information was available are shown with (?).

## **MEDIATING FACTORS**

### **POLICIES**

There are regulations restricting overuse of beach seine (large nets). (P)

These regulations, which should protect the natural resource base for the maritime fishers, are of little use because they are not enforced.

### **PROGRAMMES AND PROJECTS**

A regional project to support artisanal fishing in coastal West Africa, funded by the United Kingdom, has just started. (P)

It is too soon to know what the impact of this project will be, but the intention is to improve management of the fishery resource.

Lack of coordination among increasing numbers of NGOs is perceived as a problem. (A)

Multiple interventions targeting the same people may be making large claims on their time, with little immediate benefit.

### **BELIEFS/ATTITUDES**

One day a week the fisherfolk refrain from fishing and eating fish as to do so is believed to bring bad luck. (P)

This belief represents a traditional method for preventing overfishing.

### **LAWS**

No information on relevant laws is available. (?)

## **LIVELIHOOD STRATEGIES**

### **INCOME-GENERATING ACTIVITIES**

*Dry (high fishing) season: September to March*

Father earns cash from work on fishing crew; Mother earns cash from sale of smoked fish (fish are bought, smoked and sold again). (N)

*Rainy (low fishing) season: April to August*

Father migrates with fishing crew to Cotonou port and sends back remittances; Mother sells garden produce and prepares and sells coconut oil and artisanal salt. (N)

### **EXPENDITURE PATTERNS**

*Dry season*

Food, loan repayments, tontine payments, other (alcohol, school costs) (A)

*Rainy season*

Food, tontine payments, other (alcohol, health costs) (A)

Covering school and health costs has the lowest priority when cash is limited.

## **DIETARY PATTERNS**

*Dry season*

Maize paste, fish (usually cooked in sauce or smoked) and sauce (tomatoes, palm oil, onion, green vegetables). (N)

*Rainy season*

Cassava, sauce (tomatoes, palm oil, vegetables) and smoked fish (on rare occasions)

Diet during rainy season lacks protein, and may be insufficient in quantity, if cash resources are limited. (A)

## **SOURCES OF FOOD**

*Dry season*

Gift of fish received by the father after each day's work; Purchase of other foods by mother with proceeds from sale of smoked fish. (N)

*Rainy season*

Smoked fish remaining from fishing season; Purchase of food by mother with proceeds from sale of garden produce, coconut oil and salt, or on credit; Vegetables from kitchen garden. (A)

Income during rainy season is reduced and highly variable, putting mother and children at risk of not having enough to eat while father is away from home.

## **SHORT-TERM COPING MECHANISMS**

Switch to cheaper foods (cassava rather than maize). (N)

Take food on credit and repay during high fishing season. (A)

Reliance on credit for obtaining food prevents capital accumulation that might allow the household to invest in some fishing equipment or in better healthcare.

## **INTRA-HOUSEHOLD DISTRIBUTION DISCRIMINATORY BEHAVIOR**

None observed. (N)

## **EATING HABITS**

Women and children eat together around 3 times a day. The man eats on his own. They eat the same kinds of foods. (N)

## **HEALTH-RELATED ACTIVITIES**

### **CARE PRACTICES**

Infants are breastfed and weaning starts at the age of 3 months with a maize porridge. (A)

Weaning occurs very early, and the weaning food does not contain all the nutrients that the young child needs for normal growth.

### **HEALTH AND HYGIENE PRACTICES**

Well water is not boiled. (A)

The well water is not clean. Thus incidence of water-borne diseases is very high.

## **FORCES OF CHANGE**

### **TRENDS**

Depletion of fish stocks and destruction of natural sea habitats. (A)

Overfishing by industrial boats and excessive use of beach seine are undermining the sustainability of the livelihood system of artisanal fishers.

### **SHOCKS**

Devaluation of CFA franc in January 1994. (A)

Costs of fishing equipment and gear increased substantially more than prices of fish. To compensate, boat owners now take out a greater share of the fish catch to cover costs, and crew members receive a smaller share of the sale proceeds.

Climatic risk is not a major threat on the Benin coast. (N)

### **SEASONALITY**

Diet is less varied, and malaria and respiratory infections are more frequent during rainy season. (A)

## **MEASURABLE OUTCOMES**

### **INCOME**

Information on household income is not available.

### **HEALTH STATUS**

Among children under 5, the three most important illnesses registered in health units are malaria, acute respiratory infections and diarrhoea.

### **NUTRITION STATUS**

Stunting, i.e., low height for age, affects around 25% of children under 5 in the coastal Atlantique and Mono Departments of Benin.

In southern Benin, 62% of children under 2 suffer from iron deficiency and 52% are anaemic.