

# Participatory development of a household food security and nutrition improvement programme in Kano State, Nigeria

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The past decade has witnessed a gradual shift in programme design and extension approaches from the top-down approach to active community involvement in problem identification and planning of interventions. While it is appreciated that the owner of the shoe knows where it pinches most, the adoption of a participatory approach in development programmes has brought with it several challenges. These include the need to modify the approach and attitude of the experts and extension workers towards the community on the one hand, and the challenge of encouraging communities to express their views openly on issues pertaining to their development and of strengthening their analytical and planning skills on the other hand.

Where the community is consulted effectively, people show enthusiasm and keenness to take up their new roles. Experts and extension workers are learning a lot about the communities they serve and in some instances they are discovering indigenous knowledge they had not been aware of because of the previous approach to extension. Training materials to reorient experts and extension workers to participatory approaches are constantly being refined on the basis of experiences accrued. Training programmes to reorient extension workers originally trained to deliver a package or a message are under way in most developing countries.

It is against this background that the Food-Based Action Programme for Household Food Security and Nutrition Improvement for Kano State, Nigeria was initiated in 1996 with assistance from FAO's Technical Cooperation Programme. The Action Programme was a response to the high levels of malnutrition in the northern savannah zone of the country, as had been reported in a nutritional survey sponsored by the United Nations Children's Fund (UNICEF) in 1993. Kano State falls within the area that was found to have the highest prevalence of stunting or chronic malnutrition (51 percent) among children under five years of age (FAO, 1997). However, specific household food security and nutrition information on Kano State was not available.

## PROGRAMME DEVELOPMENT PROCESS

The Action Programme was developed over one year, from November 1996 to October 1997. Technical officers from virtually all government sectors participated in the programme's development, along with people from the community and the FAO team of experts. Thus, the heads of all state ministries that are represented in the State Executive Council were fully aware of the Action Programme, and approval of the Action Programme document was quick.

Six different consultative stages were undertaken before presenting the plan to the State Executive Council for approval (Table 1). Different segments of the Kano State society were involved, starting with participatory discussions of the problems and suggestions of remedial actions by rural communities. The information from these discussions was used in further elaboration and refinement of elements of the Action Programme by multidisciplinary teams of experts and policy-makers.

To facilitate the review and analysis of the household food security and nutrition situation and existing programmes and structures, FAO provided a multidisciplinary team of experts specialized in participatory rural appraisal (PRA), farming systems and agricultural extension, nutrition programmes and training, and nutrition-related health issues. This team also began some activities which laid a foundation for the implementation of the Action Programme. Multidisciplinary trainers and extension workers were trained in areas critical to effective implementation of the proposed Action Programme, including participatory extension. Training materials for use during these and future intersectoral training programmes were also developed.

Initially, past and present programmes operated by government and non-governmental organizations (NGOs) in Kano State were reviewed and their strengths and weaknesses were highlighted. Programmes relevant to food and nutrition in the agriculture, health, community development and formal and informal education sectors were examined. Information systems of these programmes and the institutional capacity of the sectors, including training and research institutions, were also reviewed.

**TABLE 1**  
**Summary of Action Programme development stages**

Period	Activities	Key participants	Participating sectors
Phase I (November 1996)	Preliminary appraisal of government programmes and information systems	Technical officers of government and NGOs	Agriculture, health, education, community development, women, population
	Training of the PRA team	Government experts and extension officers	Agriculture, health, education, community development, women, population
Phase II (December 1996)	Identification of issues mitigating against attainment of household food security and nutrition in the 12 villages appraised	Community members	Community and PRA team
Phase III (January-April 1997)	Discussion on how government can assist communities	Government technical officers and NGOs	Agriculture, health, education, community development, women, population
	Elaboration of actions to be undertaken by different sectors	Government technical officers	Agriculture, health, education, community development, women, budget, justice
	Setting up a task force to enhance community access to agricultural inputs	Technical officers and heads	Agriculture
Phase IV (May-June 1997)	Training of intersectoral groups of extension workers on elements of the proposed Action Programme and development of training materials	Extension officers and trainers	Agriculture, health, education, community development, women
	Review of the draft Action Programme	Technical officers	Agriculture, health, education, community development, women, population, budget, justice
Phase V (July-August 1997)	Sensitization of policy-makers and finalization of the Action Programme	Technical heads of ministries	Cabinet office, agriculture, education, community development, health, women, budget
Phase VI (September 1997)	Analysis of budgetary implications of the proposed Action Programme	Technical officers	Budget
Phase VII (October 1997)	Approval of the Action Programme	Political and technical heads of ministries	All state government ministries

After the review, supplementary information which was essential for the development of a comprehensive Action Programme using the PRA approach was quickly collected. The objectives of the PRA were set and a checklist of issues to be discussed during the PRA was developed.

#### **PARTICIPATORY RURAL APPRAISAL**

The primary objectives of the PRA were to gain a better understanding of the household food security and nutrition situation, including the associations with different farming systems; to identify the potential and opportunities which had not been adequately exploited; and to recommend specific food-based interventions for implementation in the appraised area and others with similar agro-ecological characteristics.

The appraisal was aimed at providing valuable information on the communities' perceptions of household food security and common nutrition- and health-related problems. Apart

from establishing the communities' opinions and views of the ways and means of improving the local situation, the appraisal aimed at establishing access to extension services, credit and marketing facilities and health information and facilities, among others.

Multidisciplinary experts and extension workers were selected from the Ministries of Agriculture, Health, Education and Community Development; the Kano State Agricultural and Rural Development Authority (KNARDA), the agency responsible for agricultural extension; and the Population Commission. After the participatory appraisal training, the participants were divided into four multidisciplinary groups of five members each. Under the guidance of a team leader and an FAO expert, each group visited a village in each of three local government areas.

The three local government areas, Tudun Wada, Warawa and Tsanyawa, were selected on the basis of their agro-ecological

### PAVING THE WAY FOR IMPLEMENTATION

Six months after the initiation of the Action Programme, the project held multisectoral training sessions for trainers and extension workers. As the Action Programme foresees training at both pre-service and in-service levels, participants for the trainer orientation sessions were drawn from all the state-run tertiary institutes in the agriculture, health and formal and non-formal education sectors as well as from line ministries and agencies currently conducting in-service training sessions for extension workers. Extension workers' supervisors were also included.

Trained extension workers comprised grassroots-level workers from all sectors involved in household food security and nutrition improvement. The majority came from areas appraised during the PRA. The training objectives were to create awareness on the intersectoral nature of household food security and nutrition issues and to develop and strengthen skills needed during the implementation of the various components of the proposed food-based Action Programme. In addition, the extension workers' training included strengthening of their capacity to undertake participatory extension.

Areas covered during training included basic and new concepts in nutrition; the household food security concept and how it is locally perceived; crop, livestock and dietary diversification; management of small animals; common forms of malnutrition in Kano State, including their detection and monitoring; diarrhoea prevention and management; and community participatory planning and implementation of household food security and nutrition interventions. The training experts and project coordinator jointly prepared training materials. These materials will be used during the implementation of the training component of the Action Programme.

features (see Figure). Tudun Wada is situated in the southern part of the state and falls in the Northern Guinea ecological zone; the centrally located Warawa Local Government Area falls in the Wet Sudan Savannah zone; and Tsanyawa is located

in the extreme northern part of the state and falls in the dry Sudan Savannah. The presence of irrigation facilities was taken into consideration in the selection of four villages per local government area appraised. A ward was appraised from each of the 12 villages selected.

A total of 1 718 households, averaging ten persons per household, were included in the appraisal; this constituted 10 percent of the population of the three local government areas. Members of all households in the selected wards provided information. The techniques used in collecting data included mapping of agro-ecological features and areas of economic activities; semi-structured interviews involving free discussions based on a flexible checklist; information gathering from key informants; and individual and group interviews with a view to triangulating (i.e. looking at a situation from different perspectives) and/or verifying the information provided. Also included in the methodology was household food security ranking by the community.

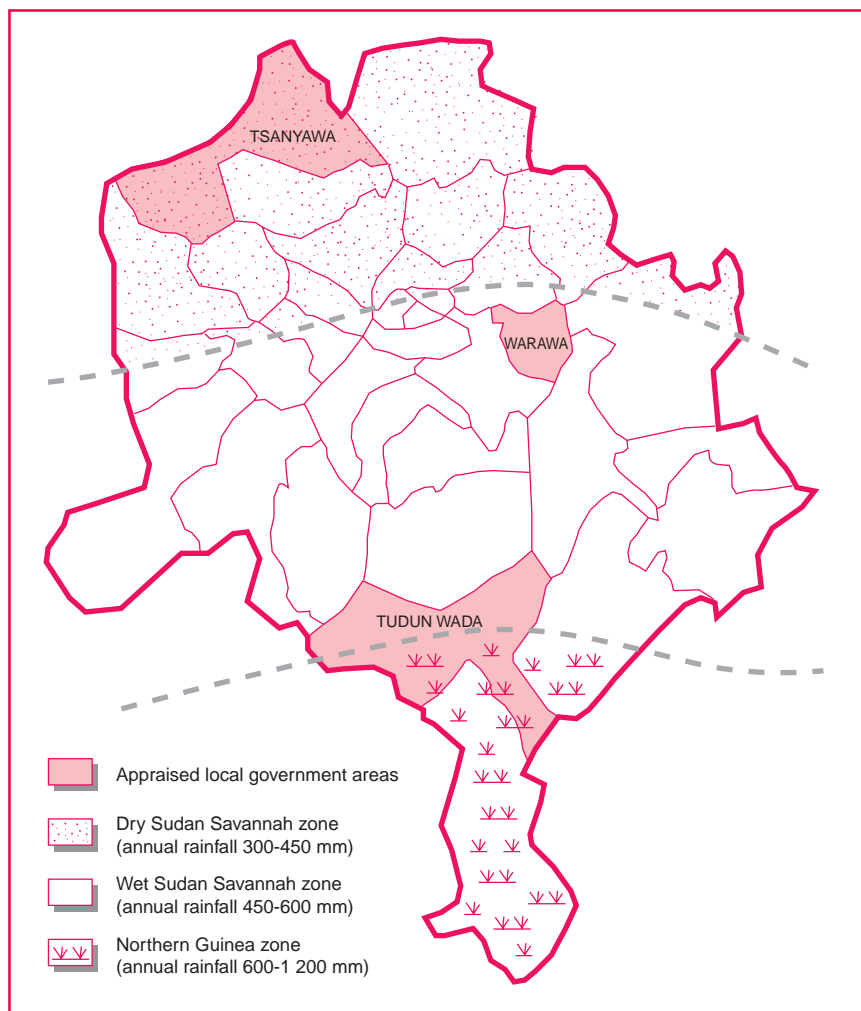
The appraisal teams lived in each of the villages for one week, discussing, observing and collecting information on food production and trends, farm labour supply and demand throughout the year; food supply and meal frequency throughout the year; food processing and preservation methods; infant feeding and child care practices; prevalence of clinical forms of malnutrition and community perception of their causes; and common childhood illnesses. In addition, measurements were taken of the mid-upper-arm circumference (MUAC) of children aged one to five years.

#### Appraisal results

The PRA results showed that the problems of household food insecurity and malnutrition are widespread in the appraised



*Training of extension workers for the Action Programme*



**Location and ecological zones of the appraised local government areas**

areas. This was evident from the existence of two commonly used local terms to distinguish different degrees of household food insecurity as well as local terms to describe marasmus and kwashiorkor.

The indicators used by local communities in their classification of food-insecure households included: the amount of agricultural land owned by the household; the period when household members start selling labour; daily meal frequency and the specific time during the course of the year when households start reducing daily meals; the sale of livestock and other assets in order to buy food; and borrowing or begging of food and other basic resources from relatives.

Communities used the terms *matsala* and *tararrabi* to define households experiencing chronic and temporary food insecurity, respectively. A household experiencing *matsala* produces food that lasts only three to five months, while households in the *tararrabi* category produce food that lasts up to eight or nine months. Households adjust by reducing daily meal frequency from three meals downward, starting from around January for the households in the *matsala* category and April or May for those experiencing *tararrabi*. As food stocks dwindle, the quality of the meals changes

considerably, and it is not unusual for families to consume meals composed of only green leafy vegetables in the rainy season, a time when the demand on agricultural labour is highest.

According to community ranking, 20 percent of the households were food secure and 80 percent food insecure (46 percent temporarily food insecure [*tararrabi*] and 34 percent chronically food insecure [*matsala*]). Of the total of 948 children aged one to five years, 13 percent were severely undernourished (MUAC below 12.5 cm) and 23 percent were moderately undernourished (MUAC between 12.5 and 13.5 cm), i.e. in the red and yellow sections of the MUAC strip, respectively. Details are given in Table 2.

The communities of Daba and Tabanni Rinji, two of the three irrigated areas appraised, considered 70 and 40 percent of the households, respectively, to be food secure. However, the MUAC measurements which gave an indication of the nutritional status of children aged one to five years suggest that the household food security benefits are not always translated into nutritional benefits. As many as 34 percent of the children in Tabanni Rinji were severely undernourished, i.e. with MUAC measurement falling within the red section of

**TABLE 2**  
**Summary of household food security and nutrition situation in the wards appraised**

Local government area/ ward	Level of household food security (%)			Mid-upper-arm circumference (%)		
	Food secure	Temporarily food insecure	Chronically food insecure	Red (<12.5 cm)	Yellow (12.5-13.5 cm)	Green (>13.5 cm)
<b>Tsanyawa</b>						
Yama	10	30	60	10	27	63
Kaya Babba	10	55	35	21	25	54
Dutsen Kafa	10	60	30	22	13	65
Tabanni Rinji <sup>a</sup>	40	30	30	34	35	31
<b>Warawa</b>						
Korawa	5	67	28	6	11	83
Fagoji	10	20	70	3	11	86
Dantsawa	10	30	60	12	29	59
Gadon Sarki <sup>a</sup>	10	60	30	4	25	71
<b>Tudun Wada</b>						
Katakuri	10	30	60	10	15	75
Sabon Gida	10	20	70	4	13	83
Dagulau	30	25	45	10	3	87
Daba <sup>a</sup>	70	18	12	2	32	54

<sup>a</sup> Wards with irrigation facilities.

**Notes:** Food insecure households: 80 percent.

Children with MUAC ≤13.5 cm (in red or yellow section of MUAC strip): 36 percent.

the MUAC strip. These results highlighted the importance of addressing other factors such as child feeding practices and improved health and sanitation to ensure that household food security benefits are translated into nutritional benefits.

People in the communities reported a worsening of the household food insecurity problem in recent years. Inadequate access to fertilizer, improved seed varieties and pesticides and limited access to labour-saving farm and food processing implements were viewed as some of the major constraints to improvements in household food security. At the time of the

appraisal, fertilizer in Nigeria was heavily subsidized by the government, but rural farmers did not often get the benefits because of hoarding by intermediaries. This created an artificial shortage, which in turn pushed up prices. In addition, people thought that one of the underlying causes of food insecurity was fragmentation of agricultural land caused by population increases, because land is acquired through inheritance.

In the central and northern local government areas of Warawa and Tsanyawa, marasmus is common, and it was considered very common in half the villages appraised. Marasmus was ranked the number-one cause of morbidity among children aged one to two years in one of the Warawa villages. Although kwashiorkor is not as common as marasmus, it was observed in most areas and was one of the major causes of child mortality, particularly shortly after weaning, i.e. around 18 to 24 months. Communities were not aware of the causes of these two nutritional disorders.

Children were not regularly weighed, and mothers took their children to the health centre only when they were very ill. However, during the appraisal, mothers showed interest in the concept behind the MUAC measurement. Some were keen to take their own children's measurements.

Measles, diarrhoea and vomiting, whooping cough and malaria or fevers were ranked as the four major causes of morbidity and mortality among children one to two years of age in most of the appraised villages. Communities reported an overall increase in the incidence of diarrhoea during the past five years. They believed that this and other diseases were God sent.

#### COMMUNITIES' PRIORITIES: SEEDS AND FERTILIZER

Although the Action Programme had not yet been finalized and approved, it was recommended that a task force be formed to deal immediately with obtaining agricultural inputs and ensuring their timely delivery. At the beginning of the 1997 rainy season, 3 tonnes of fertilizer (at the official price) and 150 kg of improved soybean seed were made available to farmers in eight of the 12 appraised villages. Soybean seed was available in small quantities, and each community developed its own distribution mechanism. The key issue was to ensure that all households ultimately benefit from the seed. Some communities developed the concept of a village seed bank. The first group of seed beneficiaries were to pay back the same amount of seed to a committee selected by the community at the end of the first harvest. By December 1997, some of the beneficiary households were already paying back the seed "loan" for distribution to new beneficiary households. The soybeans are used to make a local soup, an accompaniment to the staple, soy milk for children and a fermented seasoning similar to one normally made from uncultivated locust bean seeds.





*Farmers' discussion about improved seeds and seed distribution*

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Most mothers introduce foods at four to six months and continue breastfeeding until the child is 17 to 24 months. Some mothers continue breastfeeding during pregnancy if the child is too young to be weaned. However, in some instances, mothers reported late introduction of other foods, i.e. at eight to nine months. The majority of mothers feed children with a low energy density millet or sorghum porridge (*koko*), one to three times per day. Consumption of green leafy vegetables in the non-irrigated central and northern Sudan Savannah region of the state is reduced from two to three times per week during the rains to two to three times per month during the dry season. Such strong seasonal fluctuations continue to undermine severely the micronutrient status of children and the communities at large.

A combination of factors is responsible for the rise in malnutrition among children. The ever-increasing levels of household food insecurity are contributing to less-frequent feeding of infants and children. Furthermore, the increasing incidence of diarrhoea, aggravated by the high prevalence of other communicable and parasitic diseases, as well as lack of awareness of the causes and management of the diseases and the observed nutritional disorders, all contribute to the high levels of malnutrition.

Most of the communities did not see extension workers often and indicated that the radio was one of their main sources of information. Health posts were up to 10 km away. Although traditional birth attendants resided in most villages, they were

only trained in the safe delivery of babies but not on food and nutrition issues, especially the prevention of malnutrition.

Drinking-water was the number-one problem in four of the 12 villages appraised, namely Fagoji, Kaya-Babba, Dutsen Kafa and Dantsawa. In response, it was decided that immediate action be taken, and the Ministry of Water Resources was brought in to explore solutions to the water problem in the four communities.

#### **PREPARING THE ACTION PROGRAMME DOCUMENT**

Results of the PRA were presented at a four-day intersectoral and interagency workshop which looked at past, present and planned programmes of the agriculture and health sectors and analysed food production and processing technologies available, while highlighting potentials not adequately exploited. Presentations on the Zambian and Ugandan experiences in planning and implementing household food security and nutrition improvement programmes further enriched workshop deliberations. The workshop generated recommendations which became the foundation of the approved food-based Action Programme.

Following this workshop, participatory planning sessions were held with technical officers of each implementing sector of government. Through these sector-specific working sessions, recommendations were elaborated into Action Programme activities; where necessary, the original recommended actions and targets were modified as the potentials and limitations of the

sectors were considered. The outcome of these meetings was a draft document for an Action Programme that builds on current realities and harnesses potentials and opportunities not adequately exploited so far. The draft was circulated to government sectors, NGOs operating in Kano State and international agencies active in the state, which over a period of two months reviewed the Action Programme and made comments.

### **PROBLEMS ADDRESSED BY THE ACTION PROGRAMME**

The activities that form the Action Programme fall into four broad categories:

- creation of awareness on the magnitude and socio-economic consequences of household food insecurity and malnutrition and on how these can be minimized using existing food resources, by strengthening community nutrition education programmes, sensitizing policy-makers on the state's household food security and nutrition problems, strengthening the household food security and nutrition component of formal and informal educational programmes at all levels, etc.;
- raising food production through increased productivity and efficient utilization of irrigable land, by promoting adoption of improved farming techniques, improving coverage by extension workers, improving farmers' access to improved seed and fertilizer, increasing the area under irrigation, improving production of poultry and small ruminants, enhancing fisheries, disseminating some of the existing food production and processing technologies and continuing development of others with the participation of intended beneficiaries, etc.;
- minimizing, if not eliminating, health problems which undermine benefits from food, by strengthening community knowledge on the prevention and management of communicable and parasitic diseases and diarrhoea, promoting environmental sanitation, improving access to potable water, etc.;
- coordinating efforts and monitoring progress towards enhanced household food security and nutrition improvement, by setting up a system to monitor the implementation of the various components of the Action Programme and monitoring the impact of these actions on households.

The Action Programme has 25 programme components, each with its own specific objectives, expected outputs and activities. Given that problems of malnutrition are multifaceted and interventions call for effective participation of the agriculture, health, education, community development and other sectors, coordination and monitoring of the implementation of the various components was considered

paramount. The draft Action Programme document proposed setting up a state household food security and nutrition planning, coordinating and monitoring body in a politically prominent government institution with coordinating functions and influence on resource allocation.

### **APPROVAL OF THE ACTION PROGRAMME**

The results of the 1996 PRA on the household food security and nutrition situation surprised the PRA teams from the agriculture, health, education and community development sectors, as well as the working group that deliberated on possible interventions. Kano State had been perceived as the grain basket of the nation, and the high levels of household food insecurity and malnutrition were unexpected.

In response to the recommendation of the multidisciplinary working group that outlined elements of the Action Programme, a one-day sensitization workshop for policy-makers was organized before finalization of the Action Programme. The objectives were to strengthen the policy-makers' knowledge and understanding of the magnitude of the problems in Kano State and their socio-economic consequences on development as well as to seek agreement on intervention priorities. The sensitization process was intended to facilitate approval of the Action Programme by the Executive Council and to influence allocation of resources and concentration of efforts into key areas.

A unique feature of this Action Programme was the inclusion of an indicative budget, prepared with inputs from relevant sectors. The 25 programme components were classified according to the following categories: ongoing activities requiring strengthening without, with slight or with significant budgetary implications, and new activities with slight or with significant budgetary implications. Components requiring technical assistance were also highlighted. Some of the programme components were already being supported by agencies such as the United Nations Development Programme (UNDP), the World Bank and UNICEF, and the state government was fully aware of the need for government sectors collectively to approach such donors to re-examine the areas and extent of their support to the state.

Presentation of the indicative budget in this manner facilitated a quick analysis of the budgetary implications of the proposed Action Programme by the Department of Budget and Economic Planning. Following the clearance of the Action Programme by the Department of Budget and Economic Planning in October 1997, the entire programme was approved with one amendment. The proposed planning and coordinating body was changed from the recommended commission to a committee based in the Cabinet Office. Its composition and functions, however, remained as proposed.

## CONCLUSION

The participatory and multidisciplinary approach to appraising the household food security and nutrition situation was a big eye-opener for extension workers who were often used to working solely on issues in their technical areas, using a top-down delivery of messages or packages of technological options. PRA dialogues provided the opportunity of creating awareness on available services, support and information among local community members.

Use of the MUAC strip in assessing the nutritional status of children aged one to five years generated a lot of interest among the mothers, partly because of the simplicity of this tool, and mothers were stimulated to participate in taking the measurements. Despite the well-known limitations of the MUAC measurement, this technique has the potential for providing a good entry point for participatory discussions on infant feeding and child care.

The experience of staying with the community for a week gave the PRA team members a strong desire to assist the communities through the establishment of links with sectors responsible for dealing with specific problems. The active follow-up by PRA team members will certainly improve the chances of solving some of the specific community problems which did not necessarily form part of the FAO-assisted project. However, to the extent possible, programmes developed in a participatory manner should aim at responding quickly to some of the pressing problems perceived by the community. Some flexibility in project design would make it easier to respond to such community concerns as they arise.

Contrary to the assumption held by most agriculturists that solving household food security problems automatically solves nutrition problems, the results of the PRA highlighted the fact that increasing food production and improving the variety of foods accessible to households through expansion of irrigation schemes does not necessarily ensure attainment of the nutritional well-being of the community concerned. Special attention must therefore be given to ensure the inclusion of nutrition concerns in food security programmes if communities are to attain the ultimate objective of improved nutritional well-being.

The approval of the Action Programme for Household Food Security and Nutrition Improvement for Kano State was greatly accelerated by the consultative approach taken during its development and by the inclusion of an indicative budget detailing the ongoing and new components. The indicative budget facilitated a quick analysis of the implications of the Action Programme on the overall budget of the state, which in turn made it easy for the state to arrive at a positive decision. ♦

## REFERENCES

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**Participatory development of a household food security and nutrition improvement programme in Kano State, Nigeria**

Programme design and extension methodologies have shifted from the top-down approach to active community involvement in problem identification and planning interventions. The participatory approach in development programmes has brought with it the need to modify the practices and attitudes of the experts and extension workers towards the community and the challenge of encouraging people to express openly their views on issues pertaining to their community's development. It also entails strengthening people's analytical and planning skills.

The Food-Based Action Programme for Household Food Security and Nutrition Improvement for Kano State was developed through participatory methods to respond to the high levels of malnutrition in the northern savannah zone of Nigeria. Technical officers from all government sectors participated in the programme's development, along with people from the community. FAO provided a multidisciplinary team of experts specialized in participatory rural appraisal (PRA), farming systems and agricultural extension, nutrition programmes and training, and nutrition-related health issues to facilitate the process.

PRAs were held to gain information on the communities' perceptions of household food security and common nutrition and health-related problems. Multidisciplinary teams were selected from the Ministries of Agriculture, Health, Education and Community Development, the Kano State Agricultural and Rural Development Authority and the Population Commission. The teams visited 12 villages in three agro-ecological zones. A total of 1 718 households provided information about farming, resources, nutrition and health.

The PRAs found that household food insecurity and malnutrition were widespread. Inadequate access to fertilizer, improved seed varieties, pesticides and labour-saving farm and food-processing implements were major constraints to improving household food security. An underlying cause of food insecurity was fragmentation of agricultural land resulting from population increases. Poor access to drinking water, reduced infant feedings and diseases contributed to malnutrition. Extension and health and nutrition services were insufficient.

The results of the appraisal of household food security and nutrition surprised many policy-makers and workers in the agriculture, health, education and community development sectors because Kano State is perceived as the grain basket of the nation. The activities sparked interest in the communities about nutrition, agricultural, health and other services. An intersectoral and interagency workshop reviewed the PRA results and agriculture and health programmes and analysed food production and the processing technologies available. The recommendations of the workshop participants formed the basis for the action programme. The recommendations were modified in participatory planning sessions with technical officers in each sector. This process led to a programme that builds on current realities and harnesses potentials and opportunities not adequately exploited before.

The action programme focuses on several issues: creating awareness of the magnitude and socio-economic consequences of household food insecurity and malnutrition and of ways to use existing food resources; raising food production through improved farming techniques; increasing farmers' access to agricultural inputs and extension services; preventing and managing communicable and parasitic diseases and diarrhoea; promoting environmental sanitation; improving access to potable water; and monitoring the implementation and impact of the action programme.

**Elaboration participative d'un programme d'amélioration de la sécurité alimentaire et de la nutrition des ménages dans l'Etat de Kano (Nigéria)**

La conception des programmes et les méthodologies de vulgarisation ont abandonné l'approche du sommet à la base pour se réorienter vers une participation active de la communauté à la définition des problèmes et aux interventions de planification. Cette nouvelle manière d'aborder les programmes de développement a entraîné la nécessité de modifier les pratiques et les attitudes des experts et des agents de vulgarisation envers la communauté, et le défi d'encourager les gens à manifester ouvertement leurs opinions sur des questions concernant le développement de leur communauté. Elle nécessite également le renforcement des aptitudes analytiques et de planification.

Le Programme d'action pour l'amélioration de la sécurité alimentaire et de la nutrition pour l'Etat de Kano a été mis au point, en faisant appel aux méthodes participatives, pour faire face aux niveaux élevés de malnutrition dans la zone de savane septentrionale du Nigéria. Les responsables techniques de tous les secteurs gouvernementaux ont participé à l'élaboration du programme, de même que les membres de la

communauté. Pour faciliter le processus, la FAO a fourni une équipe multidisciplinaire d'experts d'évaluation rurale participative, de systèmes d'exploitation et de vulgarisation agricole, de programmes de nutrition et de formation, et de questions sanitaires liées à la nutrition.

Des évaluations rurales participatives ont été organisées pour recueillir des informations sur la perception des communautés de la sécurité alimentaire des ménages et des problèmes courants de nutrition et de santé. Des équipes pluridisciplinaires ont été formées de membres des Ministères de l'agriculture, de la santé, de l'éducation, du développement communautaire, de l'Autorité de développement agricole et rural de l'Etat de Kano et de la Commission démographique. Les équipes se sont rendues dans 12 villages de trois zones agro-écologiques. Elles ont rassemblé auprès d'un total de 1 718 ménages des données sur l'agriculture, les ressources, la nutrition et la santé.

L'évaluation rurale participative a révélé que les ménages souffraient d'une insécurité alimentaire et d'une malnutrition généralisées. Les principaux obstacles à l'amélioration de la sécurité alimentaire étaient un accès insuffisant aux engrais, aux variétés améliorées de semences, aux pesticides, et aux outils et instruments d'allègement de l'effort physique (agriculture et transformation des produits). Une cause profonde de l'insécurité alimentaire était la fragmentation des terres agricoles due à l'accroissement démographique. L'accès insuffisant à l'eau potable, l'alimentation réduite des nourrissons et les maladies contribuaient à la malnutrition. Les services de vulgarisation et de santé et de nutrition étaient inadéquats.

Les résultats de l'évaluation sur la sécurité alimentaire et la nutrition des ménages a surpris de nombreux responsables politiques et opérateurs des secteurs de l'agriculture, de la santé, de l'éducation et du développement communautaire, l'Etat de Kano étant perçu comme le grenier de la nation. Les activités ont suscité un intérêt au sein des communautés sur la nutrition, les services agricoles, sanitaires et autres. Un atelier intersectoriel et interorganismes a examiné les résultats de l'évaluation et les programmes agricoles et sanitaires, et a analysé les technologies de production et de transformation alimentaires disponibles. Les recommandations des participants à l'atelier ont servi de toile de fond au programme d'action. Lors des sessions de planification concertée avec les responsables techniques de chaque secteur, les recommandations ont été réorientées vers un programme fondé sur les réalités actuelles pour exploiter les potentialités et possibilités jusque-là insuffisamment prises en compte.

Le programme d'action comporte plusieurs volets: sensibiliser à l'ampleur et aux conséquences socioéconomiques de l'insécurité alimentaire et de la malnutrition des ménages, et identifier des moyens d'utiliser les ressources vivrières existantes; accroître la production vivrière grâce à des techniques d'exploitation améliorées; augmenter l'accès des agriculteurs aux intrants et aux services de vulgarisation; prévenir et gérer les maladies transmissibles et parasitaires et la diarrhée; promouvoir l'assainissement de l'environnement; améliorer l'accès à l'eau potable; et suivre la mise en place et l'impact du programme d'action.

**Desarrollo participativo de un programa de mejora de la seguridad alimentaria y la nutrición familiar en el estado de Kano, Nigeria**

Las metodologías de formulación de programas y de extensión han pasado de un enfoque desde arriba a una intervención activa de la comunidad en la individuación de los problemas y en las actuaciones de planificación. El enfoque participativo en los programas de desarrollo ha traído consigo la necesidad de modificar las prácticas y competencia de los expertos y extensionistas con respecto a la comunidad y al problema de estimular a la gente a manifestar abiertamente sus puntos de vista sobre cuestiones que atañen al desarrollo de su comunidad, así como al refuerzo de sus aptitudes analíticas y de planificación.

A través de métodos participativos, el programa para la mejora de la seguridad alimentaria y de la nutrición familiar en el estado de Kano se desarrolló como respuesta a los elevados niveles de malnutrición que predominaban en la región septentrional de sabanas de Nigeria. Técnicos de todos los sectores públicos participaron en el programa, junto con personas de la comunidad. Para facilitar el proceso, la FAO proporcionó un equipo multidisciplinario de expertos especializados en evaluaciones rurales participativas, sistemas agrícolas y extensión agraria, programas de nutrición y capacitación, y cuestiones de salud relacionadas con la nutrición.

Se llevaron a cabo evaluaciones rurales participativas para obtener información sobre la opinión de las comunidades acerca de la seguridad alimentaria y la nutrición común familiar y problemas relacionados

## Summary/Résumé/Resumen

con la salud. Se seleccionaron equipos multidisciplinarios recurriendo a personal de los ministerios de agricultura, sanidad, educación, desarrollo comunitario, del Organismo de desarrollo agrícola y rural del estado de Kano y de la Comisión sobre Población. El equipo visitó 12 aldeas en tres zonas agroecológicas distintas. Un total de 1 718 hogares aportaron datos sobre labranza, recursos, nutrición y sanidad.

Se llegó a la conclusión de que la inseguridad alimentaria y la malnutrición familiar eran fenómenos extendidos. Un acceso insuficiente a los fertilizantes, a variedades de semillas mejoradas, a plaguicidas y a medios de ahorro de mano de obra y elaboración de alimentos constituían las principales limitaciones para mejorar la seguridad alimentaria de los hogares. Una de las causas de la inseguridad alimentaria era la parcelación de las tierras agrícolas provocada por el incremento demográfico. A la malnutrición contribuían también el escaso acceso al agua potable, la reducción de la alimentación infantil y las enfermedades. Los servicios de extensión y los de sanidad y nutrición eran insuficientes.

Los resultados de la evaluación sorprendieron a muchos gobernantes y autoridades y a investigadores en los sectores del desarrollo agrícola, sanitario, educacional y comunitario, pues Kano se considera el granero de la nación. Estas actuaciones suscitaron interés en las comunidades sobre los servicios nutricionales, agrícolas, sanitarios y otros. Se celebró un taller intersectorial e interorgánico que examinó los resultados de la evaluación y los programas de agricultura y sanidad, y analizó las tecnologías existentes de producción y elaboración de los alimentos. Las recomendaciones de los participantes en el taller sirvieron de base para el programa de acción. Las reuniones de planificación participativa con oficiales técnicos de cada sector introdujeron modificaciones en las recomendaciones para llegar a un programa que se basa en las realidades actuales y aprovecha oportunidades que hasta ahora no se han explotado suficientemente.

El programa de acción centra su atención en varias cuestiones: sensibilización sobre la magnitud y consecuencias socioeconómicas de la inseguridad y malnutrición alimentaria de los hogares, y formas de emplear los actuales recursos alimentarios; elevación de la producción de alimentos mejorando las técnicas agrícolas y el acceso de los agricultores a los insumos agrícolas y servicios de extensión; prevención y lucha contra las enfermedades contagiosas y parasitarias y las diarreas; fomento del saneamiento ambiental; y acceso al agua potable. ♦