CHAPTER ONE

SURVEY DESIGN/METHODOLOGY

INTRODUCTION:

In accordance with the policy thrust of the Federal Government of Nigeria on poverty alleviation, the National Bureau of Statistics (NBS) had, in the recent years, embarked on the assessment and monitoring of poverty levels through the conduct of Core Welfare Indicator Questionnaire (CWIQ) surveys. These surveys were part of the efforts of the Bureau in providing information for the management of the Nigerian economy and society.

Specifically, the CWIQ is an instrument designed to collect minimum information not only for providing basic welfare indicators for monitoring poverty alleviation programs but, more generally, for providing indicators for monitoring welfare and other social trends for the different population groups across the country, quickly enough to inform programs and policy decisions.

Prior to the current survey, NBS had conducted six rounds of CWIQ survey. These surveys spanned 13 States across the six geopolitical zones in Nigeria, from 1999 to 2004. The National CWIQ Survey 2006 was the latest and by far the biggest survey conducted to date in the history of the CWIQ.

Objectives of the Survey:
Broadly, the main objective of the survey was to provide policy makers, planners and programme managers with simple indicators for monitoring poverty and the effects of development policies, programmes and projects on the living standards of the affected states and local governments in a timely manner.

The specific objectives included:

(i)   elaborating the main indicators for social welfare and basic needs of the socio-economic groups of the population,
(ii)   identifying target groups to benefit from special action programmes designed by decision-makers to address their needs,
(iii)   monitoring changes in the welfare of the households over time,
(iv)   providing a data base for social research,
(v)   elaborating on numerous sector programs aimed at improving the population across the country,
(vi)   building models to stimulate the global impact of policy choices and distribution of this impact, and
(vii)   eliminating data entry bottlenecks through the use of "scanning" technique with optical mark reader (OMR).

Coverage:
CWIQ Survey 2006 was National, covering all the states of the Federation and the Federal Capital Territory (FCT), Abuja. All the 774 Local Government Areas in the country were canvassed. The coverage cut across both the urban and rural areas of the country.

Scope:
The CWIQ collected information at three levels. Some information were collected from individual members of the household about themselves as individuals and their household as a unit. Some questions were also asked on the needs of the community and the types of development that had taken place in the community in the past five years. Thus, the information solicited from household members included:

(i)   At the individual household member level –
- Demography
- Education
- Health
- Employment
- Child Under 5 years
- Gender (Contribution to Household activities and welfare)

(ii)   At the Household level –
- Household Assets
- Household Amenities

(iii) At Community level –
- Social Project
- Self-Assessed Poverty.

Sample Design:
The National CWIQ Survey 2006 was designed with Local Government Area (LGA) serving as the reporting domain. Data were then aggregated to give estimates at Federal Constituency (FC), Senatorial, State, zonal (geo-political) and national levels.

Basically, a 2-stage cluster sample design was adopted in each LGA. Enumeration Areas (EAs) formed the 1st stage or Primary Sampling Units (PSUs) while Housing Units (HUs) formed the 2nd stage or Ultimate Sampling Units (USUs).

The EAs as demarcated by the National Population Commission (NPopC) for the 1991 Population Census served as the sampling frame for the selection of 1st stage sample units. In each LGA, a systematic selection of 10 EAs was made. Prior to the second stage selection, complete listing of Housing Units (and of Households within Housing Units) was carried out in each of the selected 1st stage units. These lists provided the frames for the second stage selection. Ten (10) HUs were then systematically selected per EA and all households in the selected HUs were interviewed.

The projected sample size was 100 HUs at the LGA level. The sample size using other defined reporting domains (FC, senatorial, state and geo-political zone) varied, depending on the number of the LGAs that made the reporting domain. (See ……………..). Overall, 77,400 HUs were drawn at the national level. This made the survey the biggest in the history of the CWIQ.

Survey Instrument:
Three main instruments were designed for and used during the survey. They included the CWIQ questionnaire, the interviewer's manual and the supervisor's manual.

The generic scannable CWIQ questionnaire was adapted to suit the country situation. The questionnaire (see……….) served as the main data collection instrument and captured the minimum information that allowed for identification of targets groups, provision of basic welfare indicators for measuring poverty and the capturing of information which measured access, utilization and satisfaction with services provided. The questionnaire did not cover measurement of indicators on child nutrition through anthropometric measurements. This was mainly due to inability to procure early enough, the necessary anthropometric equipment, namely, rollameter, microtoise and mother-and-child weighing scale.

Both the Interviewer's and Supervisor's manuals served as instructional manuals during the training of field staff and reference manuals during fieldwork. The interviewer's manual documented the CWIQ Survey design, data collection techniques, the roles of the field staff during the fieldwork and how to get the CWIQ completed. The supervisor's manual, additionally, documented the roles of the supervisors and field edit check procedures.

Training for Fieldwork:
As earlier indicated, the National CWIQ Survey 2006 was the biggest in the history of the CWIQ. Over 520 enumerators and 142 supervisors were recruited to effectively canvass the projected 77,400 HUs nationwide. This called for an elaborate decentralized training programme for effective delivery and conducive training environment.

The training for fieldwork was conducted at two levels. At each level, the training covered survey design, roles of the field staff, classroom sessions on the questionnaire and manuals, mock interviews, role playing, questionnaire editing and field practice. Because of the newness of the scannable questionnaire, there were also practice exercises on hand printing and shading of bubbles. The results of the exercises were scanned and made available to each of the trainees for him/her to see his/her printing and shading errors. The exercises underscored the need for the printing and shading of responses to be as impeccable as possible.

The first level training served as the Training of Trainers (TOT) and was directed at the would-be trainers at the 2nd level. The training objectives at this level included familiarization with the survey instruments and preparation of the trainers for 2nd level training, session by session. The training lasted for 5 days. Senior staff from NBS Headquarters and the NBS Zonal Controllers formed the pool of the trainees at this level from which the trainers were selected. The final selection was on merit, based on the result of the test conducted at the end of the training.

The second level training was for the field staff which consisted of enumerators and supervisors recruited nation-wide, the NBS state officers and Directors of State Statistical Agencies with whom NBS had always collaborated in past surveys. Due to the large number of field staff, training at this level was decentralized. In all, there were 12 training venues spread over 6 training centres i.e. one at each Zonal Headquarters. The two training venues at a training centre were made to be as close as possible for effective coordination and monitoring of the training programme. The training was conducted

simultaneously in all the 12 training venues and lasted for 10 days. Just as was the case at the first level, the final selection of the field staff was on merit, based on test conducted at the end of the training.

The Independent monitors appointed by the World Bank to monitor the implementation of the CWIQ Survey 2006 were also in attendance to attest to the quality of the training at the 1st level and 2nd levels of training.

Fieldwork Arrangement:
The fieldwork was preceded by some preliminary arrangements specifically geared towards sensitizing the populace about the survey. Newspaper adverts and radio jingles in local/national newspapers and radios, respectively, heralded the fieldwork. Advance letters soliciting for support during the fieldwork were sent to the Local Government chairpersons and community leaders.

Personnel for the fieldwork were outsourced. Both NBS regular staff and non-NBS staff were given opportunity to apply for the post of enumerator. Only very few number of the supervisors were outsourced. The outsourcing of field personnel was done to ensure that only qualified and competent persons were recruited for the fieldwork. The limited number of supervisors outsourced was predicated on the need to have the supervisors come from within the NBS. These were officers with data collection experience and who had acted in supervisory capacity for at least 10 years. The recruitment itself was state based. The field staff finally selected in each state had flair for at least the more common or dominant local language in the state.

The enumerators within each state were constituted into teams with supervisors as leaders. Generally, a team comprised four enumerators and a supervisor. The number of teams per state varied, depending on the number of the LGAs in the state. The variation in the number of teams per state is shown in Table ….

The data collection was done by each team in a roving manner under the control of the team leader. Contiguous LGAs were allocated to teams to facilitate the work of the enumerators and minimize movements between EAs. The number of EAs canvassed by teams varied. Generally, a team covered between 40 and 64 EAs (See Table….). On the average, an enumerator completed five household interviews per day. The data collection was completed within 32 days.

Quality Assurance:
With a projected housing units interviews of 77,400 and the deployment of fieldstaff of over 520 enumerators and 142 supervisors, spread across the 36 states of the Federation and FCT, Abuja, one of the main challenges of the survey was how to manage the non-sampling errors that were likely to occur in such a hugs exercise. The challenge was met through

(i)   carefully planned recruitment and selection of high quality and competent field staff

(ii)   elaborate, intensive and effective training of field staff

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(iii)   close and effective supervision and monitoring of fieldwork

(iv)   fortnightly review of fieldwork with the state officers

(v)   good control of data entry and processing.

Coordination of Fieldwork:
The survey took advantage of one of NBS infrastructures for survey taking, namely, the network of field offices. Under its zonal arrangement, a number of states were grouped together to constitute a zone. Presently, NBS operates six zones. Each zone is headed by a Zonal Controller who, amongst other responsibilities, coordinates field operations within the zone. The state officers take responsibility for fieldwork in their respective states. Thus, for the CWIQ survey, while the state officers were made to coordinate fieldwork in their respective states, the zonal controllers, on the other hand, were charged with the responsibilities of monitoring and coordinating fieldwork in their respective zones.

Specifically, the state officers were responsible for the sensitization of the LG chairpersons and community leaders. They coordinated fieldwork, coordinated retrieval of records, took custody of and ensured proper distribution of survey materials/equipment, provided logistic support for fieldwork, collected and paid field staff allowances and generally, attended to other related issues encountered by their teams.

Monitoring of Fieldwork:
The fieldwork was monitored at several levels. At the outset of fieldwork, some of the NBS headquarters staff who conducted training at the 2nd level stayed on and monitored data quality during the first week of the fieldwork i.e. the week immediately after the training. Thereafter, the state officers assumed full responsibility for the quality of fieldwork in their respective states.   Within each state, a monitoring team was constituted. The teams of supervisors and enumerators were shared between members of the monitoring team. Each monitoring officer was responsible for data quality in the assigned team(s). Amongst others, they made field visits to the team(s) to control data quality, received completed questionnaires and subjected them to further review before submitting satisfactorily completed questionnaires to the state coordinator.

The Zonal Controllers monitored the quality of fieldwork within their respective zones. They ensured that all the states within their zones were visited at least once before the end of the fieldwork.

A monitoring programme was packaged to serve as guidelines for all the three different layers of monitoring officers.

The Independent Monitors appointed by the WB also monitored the fieldwork throughout the states. Their comments and observations were directed towards the collection of good quality data.

Retrieval of Records:
The arrangement for record retrieval was driven by the need to ensure good quality data and the timely release of the survey results. In all, records were submitted to the data

processing centre at the headquarters five times. To ensure adherence to the retrieval arrangement, a retrieval schedule was prepared and made available to all the NBS State Officers and Zonal Controllers.

The submissions of records were done by the state officers. This action was deliberate and was designed to achieve three purposes. The retrieval schedule ensured that data processing was done simultaneously with the fieldwork with a lag of one week. A one-day meeting with all state officers was planned to coincide with the retrieval dates. The meeting was used to review the fieldwork and profer solutions to identified problems. Finally, the state officers had the opportunity of interacting with the data processing personnel. Prior to the scheduled interactions, the data processing staff generated error files on the records previously submitted. These errors files were discussed with the state officers who then returned to their states and briefed their fieldstaff. The objective here was to ensure consistent improvement in the fieldwork and hence the data quality.

Table 1.1
NATIONAL CORE WELFARE INDICATOR QUESTIONNAIRE (CWIQ) SURVEY 2006
NUMBER OF FIELD PERSONNEL AND TRAINING CENTRES BY STATE

ZONE	STATE	NO. OF FIELD PERSONNEL FOR TRAINING						TRAINING CENTRE NO.
		ZC	SO	DSSA	ENUME-RATOR	SUPER-VISOR	TOTAL	
S.E	Abia	-	2	1	13	4	20	1
	Anambra	-	2	1	16	4	23	2
	Ebonyi	-	1	1	10	3	15	1
	Enugu	1	2	1	14	3	21	1
	Imo	-	2	1	20	5	28	2
S.S	Akwa Ibom	-	2	1	22	5	28	1
	Bayelsa	-	1	1	6	2	10	1
	Cross River	1	2	1	13	3	20	2
	Delta	-	2	1	19	5	27	1
	Edo	-	1	1	14	3	19	2
	Rivers	-	2	1	17	4	24	2
S.W	Ekiti	-	1	1	12	3	17	1
	Lagos	-	2	1	15	4	22	1
	Ogun	-	2	1	15	4	22	2
	Ondo	-	2	1	13	3	19	2
	Osun	-	2	1	22	5	30	2
	Oyo	-	2	1	24	6	34	1
N.E	Adamawa	-	2	1	16	4	23	2
	Bauchi	-	2	1	15	4	22	1
	Borno	1	2	1	19	5	28	1
	Gombe	-	1	1	7	2	11	1
	Taraba	-	2	1	11	3	17	2
	Yobe	-	2	1	14	3	20	2
N.W	Jigawa	-	2	1	19	4	26	2
	Kaduna	1	2	1	17	4	25	2
	Kano	-	2	1	30	7	40	1
	Katsina	-	2	1	24	6	33	1
	Kebbi	-	2	1	17	4	23	1
	Sokoto	-	2	1	11	4	24	2
	Zamfara	-	2	1	17	3	17	2
N.C	Benue	-	2	1	17	4	24	1
	Kogi	-	2	1	16	4	23	2
	Kwara	-	2	1	12	3	18	1
	Nasarawa	-	2	1	10	3	16	2
	Niger	-	2	1	19	5	27	1
	Plateau	1	2	1	13	3	20	2
	FCT	-	1	1	5	1	8	2

ZC   =   Zonal Controller
SO   =   State Officer
DSSA =   Director of State Statistical Agency

Table 1. 2

SAMPLE SIZE FOR THE NATIONAL CORE WELFARE INDICATOR SURVEY

STATE	LGAS	EAS	HUS
ABIA	17	170	1700
ADAMAWA	21	210	2100
AKWA IBOM	31	310	3100
ANAMBRA	21	210	2100
BAUCHI	20	200	2000
BAYELSA	8	80	800
BENUE	23	230	2300
BORNO	27	270	2700
CROSS RIVER	18	180	1800
DELTA	28	250	2500
EBONYI	13	130	1300
EDO	18	180	1800
EKITI	16	160	1600
ENUGU	17	170	1700
GOMBE	11	110	1100
IMO	27	270	2700
JIGAWA	27	270	2700
KADUNA	23	230	2300
KANO	44	440	4400
KATSINA	34	340	3400
KEBBI	21	210	2100
KOGI	21	210	2100
KWARA	16	160	1600
LAGOS	20	200	2000
NASARAWA	13	130	1300
NIGER	25	250	2500
OGUN	20	200	2000
ONDO	18	180	1800
OSUN	30	300	3000
OYO	33	330	3300
PLATEAU	17	170	1700
RIVERS	23	230	2300
SOKOTO	23	230	2300
TARABA	16	160	1600
YOBE	17	170	1700
ZAMAFARA	14	140	1400
FCT	6	60	600
TOTAL	**774**	**7740**	**77400**

TABLE1.3

COMPOSITION OF TEAMS PER STATE FOR THE NATIONAL CORE WELFARE INDICATORS SURVEY

STATE	LGAS	EAS	HUS	SUP	ENUM	TOTAL NO OF TEAMS			TOTAL	ALLOCATION OF EAS PER TEAM
ABIA	17	170	1700	3	12			3	3	56,5757
ADAMAWA	21	210	2100	4	14	1		3	3½	60,60,60,30
AKWA IBOM	31	310	3100	5	20	1		4	5	60,60,60,60,61
ANAMBRA	21	210	2100	4	14	1		3	3½	60,60,60,30
BAUCHI	20	200	2000	4	14	1		3	3½	57,57,57,29
BAYELSA	8	80	800	2	6		2		2	40,40
BENUE	23	230	2300	4	16			4	4	57,57,58,58
BORNO	27	270	2700	5	18	1		4	4½	60,60,60,60,30
C/ RIVER	18	180	1800	3	12			3	3	60,60,60
DELTA	25	250	2500	5	18	1		4	4½	55,55,55,56,56,28
EBONYI	13	130	1300	3	9		3		3	43,43,44
EDO	18	180	1800	3	12			3	3	60,60,60
EKITI	16	160	1600	3	10	1		2	2½	64,64,32
ENUGU	17	170	1700	3	12			3	3	56,57,57
GOMBE	11	110	1100	2	6		2		2	55,55
IMO	27	270	2700	5	18	1		4	4½	60,60,60,60,30
JIGAWA	27	270	2700	5	17	1		4	4	60,60,60,60,30
KADUNA	23	230	2300	4	16			4	4	57,57,58,58
KANO	44	440	4400	7	28			7	7	62,63,63,63,62,63,63
KATSINA	34	340	3400	6	22	1		5	5½	62,62,62,62,62,30
KEBBI	21	210	2100	4	14	1		3	3½	60,60,60,30
KOGI	21	210	2100	4	14	1		3	3½	60,60,60,30
KWARA	16	160	1600	3	10	1		2	2½	64,64,32
LAGOS	20	200	2000	4	14	1		3	3½	57,57,57,29
NASARAWA	13	130	1300	3	9		3		3	43,43,44
NIGER	25	250	2500	5	18	1		4	5	55,55,56,56,28
OGUN	20	200	2000	4	14	1		3	5½	57,57,29
ONDO	18	180	1800	3	12			3	3	60,60,60
OSUN	30	300	3000	5	20			5	4	60,60,60,60,60
OYO	33	330	3300	6	22	1		5	4	60,60,60,60,60,30
PLATEAU	17	170	1700	3	11			3	4	56,57,57
RIVERS	23	230	2300	4	16			4	4	57,57,58,58
SOKOTO	23	230	2300	4	16			4	4	57,57,58,58
TARABA	16	160	1600	3	10	1		2	2½	64,64,32
YOBE	17	170	1700	3	12			3	3	56,57,57
ZAMAFARA	14	140	1400	3	10	1		2	2½	56,56,28
FCT	6	60	600	1	4			1	1	60
TOTAL	774	7740	77400	142	520	19	10	112		

DATA PROCESSING

The data processing was organized to run concurrently with the fieldwork. That is, the programmers and their assistants participated in the training of the field staff and remained in the field for a number of days to further guide the enumerators on how to print the response and shade the bubbles according to the code of responses. Hence, the main data processing operation commenced two week after the commencement of the fieldwork.

The CWIQ system consists of the following phase: Data entry, data validation and correction, and generation of survey results. Data entry consists of converting the information in the survey questions to a readable form for processing in the subsequent phases.

This data processing system was adopted from the system developed by the World Bank in 1998 and 1999 and subsequently used for the pilot survey of Lagos State in July and August of 1999. Some modifications were however, made in the questionnaire after the survey in Benue. The modified questionnaire was then used for the CWIQ survey in Abia, Cross-River, Ekiti, Kebbi, Kogi, Yobe, Jigawa and Enugu in May to August 2002. The States covered in year 2003 were repeated for the year 2004. These include Abia, Cross-River, Gombe, Kebbi, Osun and Plateau States. Further modifications was done to the questionnaire in may 2005, there was total overhaul of some sections and the reference number was pre printed and at the same time reduced to 4 digit; while a new methodology which used hand printing recognition was adapted.

The data processing office for the current CWIQ was set up at the corporate headquarter of the National Bureau of Statistics in Abuja. Two processing centres were used and, the staff consisted of twelve (12) programmers and thirty four (34) computer assistants.

Unlike 2003 and 2004 when the office wholly managed the processing exercise, the office relied on the World Bank consultants for the implementation of the changes in the database as well the programme modules. Also, the Nigeria CWIQ is being used to design the new generic CWIQ system. The programmers were challenged with the system overhaul and also by the sample coverage of the survey.

Twelve portable optical scanners each connected to a laptop computer were used for scanning the questionnaire on EA basis. The image evaluation and data verification were done simultaneously with the scanning of the questionnaire. Eight desktop computers were connected on a local area network (LAN) for error correction and data validation, and later converted to the database.

Questionnaires coming from the field weekly by EA underwent identification and name confirmation at the processing centre using a master list of sample enumeration areas. The number of questionnaires and households for an EA were then counted to confirm that all the expected households in the enumeration area had been interviewed. The
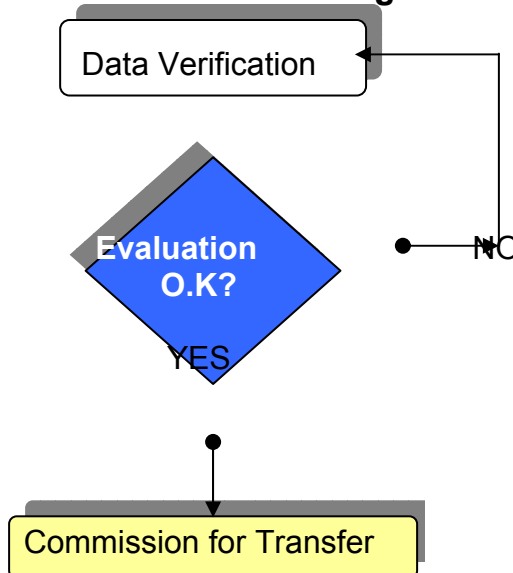
questionnaires were then prepared for scanning by sorting the households therein in ascending household identifiers; the cover pages of the questionnaires were checked for completeness; staples were then removed from the questionnaires and the questionnaires for an EA were then scanned together as a batch.

Schematic Presentation of Questionnaire Scanning:

```
┌─────────────────────┐
│     Receipt &       │
│   Documentation     │
└─────────────────────┘
          │
          ▼
┌─────────────────────┐
│   Identification    │
└─────────────────────┘
          │
          ▼
┌─────────────────────┐
│   Image Scanning    │
└─────────────────────┘
          │
          ▼
┌─────────────────────┐
│   Image Evaluation  │
└─────────────────────┘
```
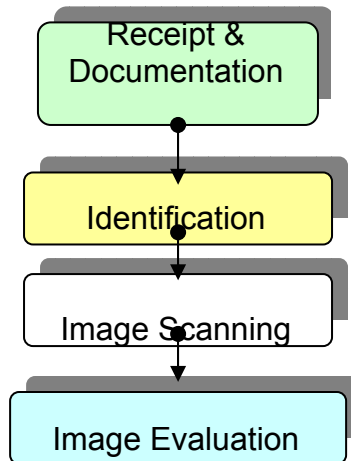
During scanning, the scanner took an image of each page of the questionnaire through form processing software (Teleform), which subsequently evaluated the scanned images. Evaluated images that suggested possible errors in the questionnaire were verified and corrected by the data entry operator. Typical errors included unidentified pages that could not be evaluated; unrecognisable hand printed characters or bubbles, which were not completely shaded. The time required for image evaluation and subsequent verification depended on how well and legibly the questionnaire was filled in.

Schematic Presentation of Image Verification:

```
┌─────────────────────┐
│  Data Verification  │◄──────────┐
└─────────────────────┘           │
          │                       │
          ▼                       │
         ╱╲                       │
        ╱  ╲                      │
       ╱ Eval-╲      NO           │
      ╱ uation ╲────────●─────────┘
      ╲  O.K?  ╱
       ╲      ╱
        ╲    ╱
         ╲YES╱
          ▼
┌─────────────────────┐
│ Commission for      │
│     Transfer        │
└─────────────────────┘
```

After all potential errors for an EA had been verified by the data entry operator; the data from the questionnaires was transferred to a shared folder in the desktop computer. The

output of the scanner was then checked for consistency, omission, skips and other errors; the data was not transferred to the database until all such errors were corrected.

Image Conversion

```
┌─────────────────┐          ◇ All errors              ┌─────────────────┐
│ Correction of skip │ ─────→  Corrected?   Yes● ──→   │ Data Transferred │
│ & ommision  errors │                                  │   to Database    │
└─────────────────┘                                     └─────────────────┘
        ↑
        │                       No
        │                       ●
        │                       ↓
        └───────────────────────
```
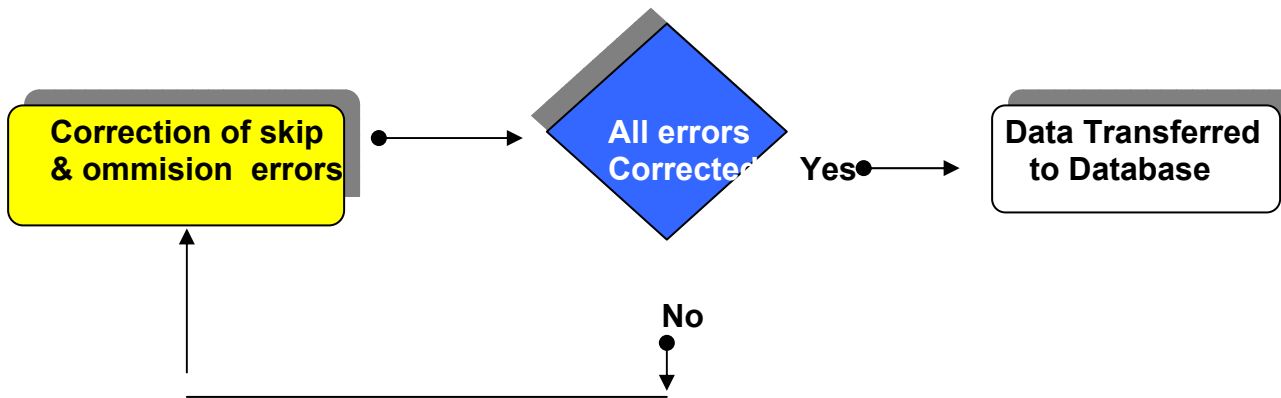
Schematic Presentation of Data Validation:

```
┌─────────────────┐          ◇ All errors              ┌─────────────────┐
│ Validation for omision │ ──→ Corrected?   Yes ● ──→  │ Validated for    │
│ & inconsistency errors │                              │   Tabulation     │
└─────────────────┘                                     └─────────────────┘
        ↑
        │                       No
        │                       ●
        │                       ↓
        └───────────────────────
```
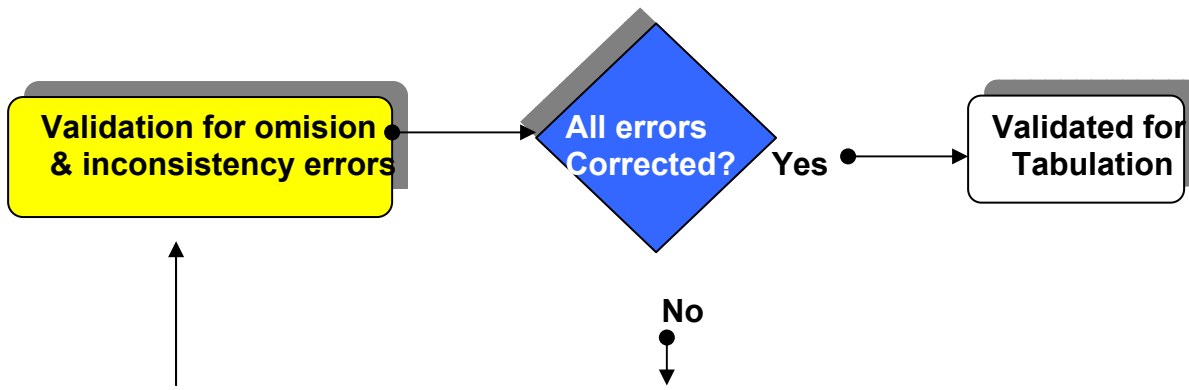
Due to the volume of the data set, there were a lot of errors to be corrected and validated. The validation and correction phase was divided into two stages: (1) validation and correction by programmers, (2) automatic correction and validation. The first stage is the normal validation whereby the errors were generated and printed on paper for subsequent correction; the difference from the normal CWIQ routine is that all the checking for the skip instructions and section H were not strictly checked. This stage was processed iteratively until there was no more error to be corrected. The second stage was newly introduced to CWIQ; this corrects the errors that were not checked by the first stage and it is done iteratively until the last run result was not different from the previous one.

Once, the data has been cleaned, analysis variables like type of residence (urban/rural), region of residence, characteristics of the head of household, welfare quintiles and the household weight used to aggregate results.   Frequencies and cross tabulations for the three major database (Household, Individual and child) were generated. Sampling errors

for the core welfare indicators were computed as the final step of the data processing system.

Schematic Presentation of Table Generation:

```
Construction      Summary          Tabulation       Table Export
Of Variables  →   of Data     →                 →   for Report
```
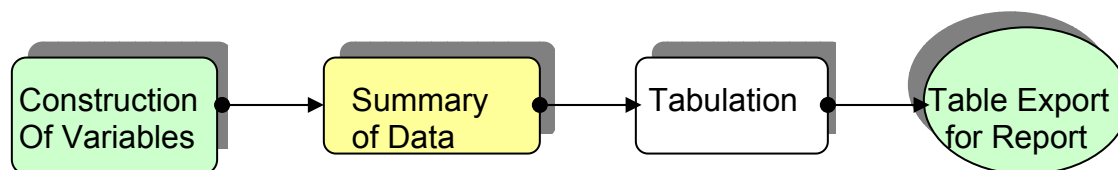
Sample Achieved

A total of 77,062 households were covered from a sample of 77,400 households giving the survey a coverage rate of 99.6 per cent. However, only 75,929 households were completely enumerated and this gave a response rate of 98.5 per cent, the remaining 1.5 per cent were recorded cases of respondents not at home, refusals, household not located, moved away and others. 59,567 households were covered in the rural areas with a response rate of 98.7 per cent while 17,495 households were covered in the urban areas with a response rate of 98.0 per cent. Out of all the six zones, it was only the South-east that has the least response rate of 97.4 per cent followed by South-south with 97.9 per cent. The highest response rate is from the North-east with 99.1 per cent, followed by North-west 99.0 per cent, South-west 98.8 per cent, and North Central 98.4 per cent. Out of all the States Imo State has the least response rate of 94.2 per cent with 2,690 households and Kogi State has the highest response rate of 100.0 per cent.

The average interview time for the survey was 45.8 minutes and the lowest was from Gombe State with 33.1 minutes while the highest was from Akwa-Ibom State with 62.8 minutes. The South-south zone has the highest average interview time of 55.6 minutes and North-west zone has the least (40.6 minutes) average interview time.

CHAPTER TWO

HOUSEHOLD AND DEMOGRAPHIC CHARACTERISTICS

Introduction
Household characteristics are concerned with the age, sex, marital status, educational background and employment status of the member of households. All these are important in portraying the economic and social situations of the households.

Age and Sex Distribution
The survey result as presented in Table 2.1 showed that 51.2 per cent of the populations were males while 48.8 per cent were females. The percentage age distribution of households across the country showed that age 15-59 years was 54.6 per cent, 39.0 per cent was for those less than 15 years, while 6.4 per cent represented those aged 60 years and above, within the age group 15-59, higher percentage was recorded for females (28.0 per cent) than males (26.6 per cent). The distribution followed the same pattern in the urban and rural areas. The zonal figures also revealed that there was higher proportion of males in all the zones except in the South-east which recorded 51.3 per cent for females and 48.7 per cent for males. All the states in the South-east and some in the South-west (Ekiti, Ondo and Osun) showed higher proportion of females than males.

Fig. 2.1 Percentage Distribution by Gender and Age Group
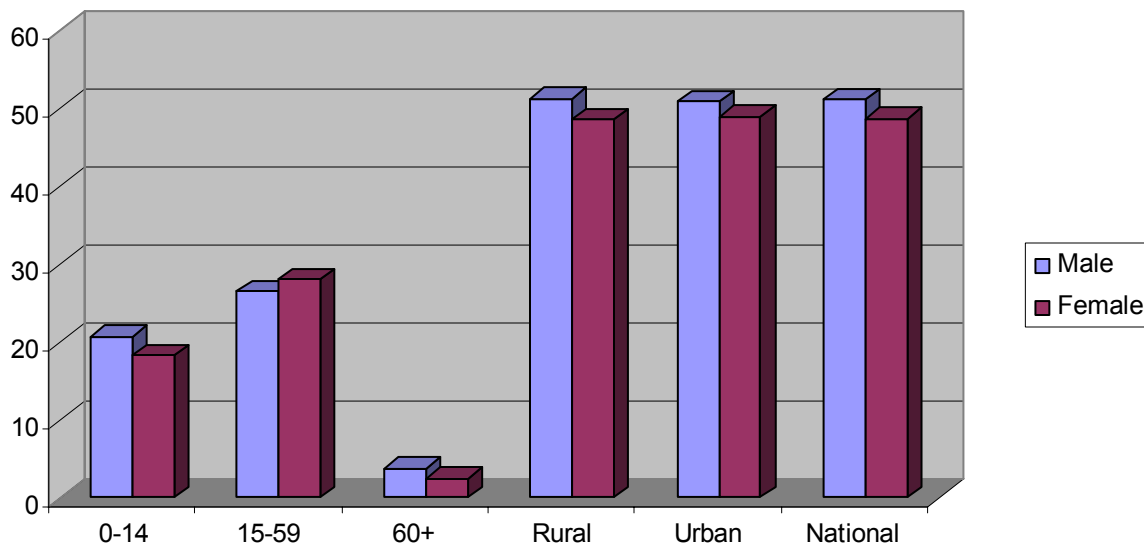
Dependency Ratio

Dependency ratio is defined as the number of household members age 0-14 years and 65 years and above over the number of household members aged 15-64 years. The overall dependency ratio was 0.8 indicating that about one member of the household was dependent on each economically active person (Table (2.2). Dependency in the rural and urban areas followed the same pattern. The ratios for zones were within the range of 0.6 for south-south to 0.9 for North-east. The states that recorded the highest ratio were Yobe and Jigawa (1.1). Also both the male and female headed households and the socio-economic groups maintained the same dependency ratio about 0.7.

Poverty Quintiles

In terms of poverty quintiles, Table 2.7 showed that 21.3 per cent of the populations were core poor while 18.3 per cent were reported to be among the rich. The results in the urban and rural areas showed the same pattern. The poorest households could be found in the North-east (35.4 per cent) while the wealthiest were in the South-west (23.0 per cent). The results also showed that the greater the proportion of children within the age group 15-19 years, the poorer the household. For example, 35.5 per cent of children in this age group were be found in the poorest compared to 5.8 per cent among the wealthiest. More females (30.0 per cent) were found to be poorer compared with their male counterparts (19.9 per cent).

Fig. 2.2 Percentage Distribution of Population by Poverty Quintile
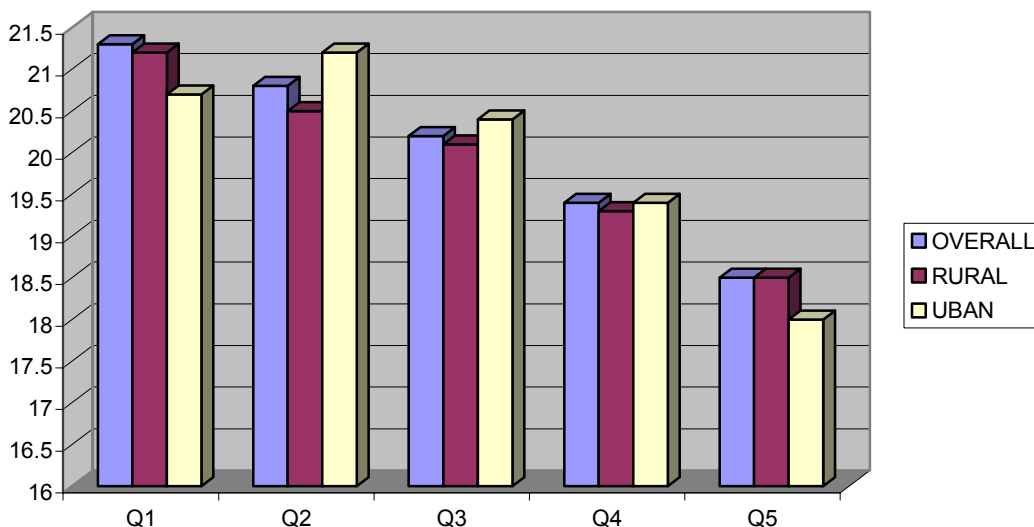
Marital Status

The marital status as shown in Table 2.4b revealed that 42.4 per cent of the populations were never married, 37.3 per cent were in monogamous marriage, and 14.5 per cent in polygamous, 3.9 per cent were widowed while those that were separated/divorced and informal loose union had 1.9 per cent. The same pattern could be seen in urban and rural areas and also across the zones. Disaggregation by heads of household, table 2.5a showed that 60.7 per cent were in monogamous marriage polygamous marriage 16.7 per cent and those that were divorced, separated, or widowed were 14.0 per cent. It was also observed that those in the informal union were few (0.6 per cent). The zonal disaggregation revealed that, there were more unmarried household heads in the South-south (13.0 per cent) followed by North-central (10.2 per cent), while the North-west had the lowest (2.6 percent).

Socio-Economic Classification

Table 2.4c showed that about half of the population (49.8 per cent) were unemployed, 29.8 per cent were self employed while those engaged in private formal activities were very few (11.5 per cent). Further analysis by sector of residence also showed that urban (52.1 per cent) and rural areas (48.8 per cent) households were unemployed. The zonal figures showed that there were more unemployed households in North-West (53.9 percent) followed by North-Central (51.3 percent) while South-South had the lowest (43.0 per cent). The result of the survey from Table 2.5b showed that majority of household heads (66.2 per cent) were self employed. This phenomenon however, was common in the rural areas where 71.2 per cent of household heads were self-employed. It was a little above half of the population of household heads (56.3 per cent) that fell under this category in the urban areas. In all, most heads of households were self employed in agriculture.

Education

From Table 2.4d, about one-third of the household members had no education (36.7 per cent), 16.5 per cent partially completed primary while 10.8 per cent had their primary education completed. For secondary education, 12.2 per cent of households had some secondary education while 13.3 per cent completed secondary education.

In all, 6.0 per cent of households completed their post secondary education. The figures in the sector of residence showed higher proportion for those that never went to school in the rural areas (43.6 per cent) than in the urban areas (21.7 per cent) whereas 20.7 per cent completed secondary school in the urban areas as against 9.8 per cent in the rural areas. Post secondary education was 11.0 per cent in the urban areas with just only 3.7 per cent in the rural areas. The highest percentage of people that never went to school was recorded in the North-west (64.4 per cent) followed by North–East zone (61.5 per cent). There were more people that completed secondary and post secondary in the South-west zone (42.3 per cent) than in the South-south zone (28.4 per cent).

From the results in Table 2.5c, two in every five head of households had no education (43.6 per cent). The percentage of those that had completed primary and secondary were 17.5 and 13.2 respectively. Few heads of household had some primary education (3.6 per cent). The highest proportion of households in the rural areas with no education was 51.8 per cent as compared to the urban (27.6 per cent). The zonal results showed that more heads of household in the North-west (71.3 per cent) had no education followed by North-

east with 68.5 per cent. South-east had the highest household heads that completed primary school (32.9 per cent) while North-east had the lowest (7.4 per cent). The South-west recorded the highest (43.4 per cent) house heads that completed secondary school followed by South-east (40.6 per cent). Generally analysis of househeads by Gender and age group revealed that more househeads had no education.

Fig 2.3 Percentage Distribution of Household Head by Highest Level of Educatioin
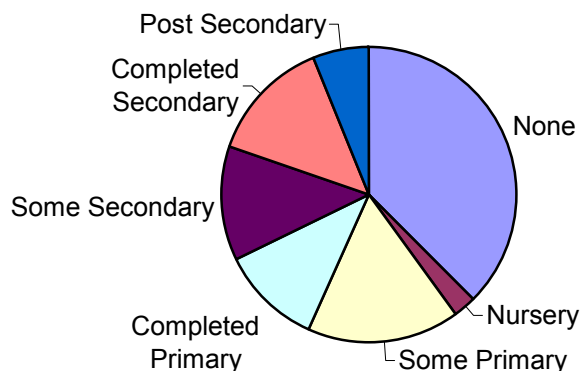
Average Household Size

Table 2.2 showed that average household size was 4.8 (i.e 5 persons per household). Sector disaggregation showed that, rural areas had 5.0 and urban areas 4.5 persons per household. South-west zone had the lowest (4.1) while North-west had the highest (5.8).

Orphanhood/Fostering

Amongst the under 18 years old children considered, 3.4 per cent lost only their father, 1.3 per cent their mother while only 0.5 per cent were orphan. Also the percentage of those that were living in extended or non-nuclear households was13.9, 5.9 per cent were living with no parents, 5.7 per cent with only their mother while few (2.4 per cent) with only their father. The orphanhood status was the same in the urban and rural areas. The proportion of orphan was higher in the South-east (0.8 per cent) and also North-east (0.7 per cent). It was higher also among those that were in age group 15-17 years (1.6 per cent). Higher proportion of children was also recorded for those living in non-nuclear households in the same age group (22.9 per cent). More female orphans lived in non-nuclear households than males. (Tables 2.6a and 2.6b)

CHAPTER THREE

EDUCATION

Education provides people with basic knowledge and skills to improve quality of life. Thus policies and programmes that help to increase access and the proper utilization of educational opportunities will assist in reducing poverty.

Adult Literacy Rate:
Table 3.1 showed Adult Literacy rate for persons aged 15 years and above. The National literacy rate stood at 65.7 per cent. On sectoral basis literacy rate was 79.6 per cent in the urban area and 58.6 per cent in the rural areas. The result of the survey also showed that South-west zone had the highest literacy rate in the country with 79.2 per cent, closely followed by the South-south (78.0 per cent) while the North-east had the lowest (42.2 per cent). In the South-west zone, Lagos State had the highest literacy rate of 89.9 per cent. From the South-south, Rivers State had the highest rate of 82.6 per cent. The lowest in the country is from Yobe State in the North-east zone with 25.3 per cent. Persons engaged in Private formal activities had the highest literacy rate of 89.5 per cent while self-agriculture households had the lowest (52.3 per cent). Gender disaggregation recorded 74.6 per cent for male and 58.6 per cent for female.

PRIMARY SCHOOL:
Access:
Access is defined for children of primary school age (6-11 years) in households who could reach a school in less than 30 minutes using the transport facilities commonly available (including walking). National figure for access to primary school was 75.9 per cent. The proportion was 74.6 per cent in the Urban area and 56.6 per cent in rural. Three zones in the country had figures above the National rate of 75.9 per cent. The zones are South-west (88.0 per cent); North-central (79.7 per cent) and North-west (76.4 per cent). The other three zones namely North east (71.9 per cent), South-south (71.7 per cent) and South-east (60.6 per cent) had rates below the National average. The rate for males was 75.5 per cent which was lower than the female rate of 76.4 per cent.

Gross Primary Enrolment:
Gross enrolment is defined for all persons currently in primary school (Kindergarten grade 1 to grade 6) regardless of age. Nigeria had a gross enrolment rate of 92.5 per cent. Urban area estimates was 107.4 per cent while rural areas was 87.0 per cent. South-east zone had the highest gross enrolment of 124.2 per cent followed by South-west (116.3 per cent), North Central (114.5 per cent) and South-south (114.2 per cent). Two zones namely North East (67.4 per cent) and North-west (64.3 per cent) had figures below the National figure. Results of the survey indicated that private formal head of households had gross enrolment rate of 109.4 per cent and self-agriculture had 83.6 per cent. Gender disaggregation showed gross enrolment rate of 96.1 per cent for males and 88.5 per cent for females.

Net Enrolment:
Net enrolment is defined for children of primary school age (6-11 years) currently in primary schools. Nigeria primary school net enrolment was 61.5 per cent, disaggregating into 74.6 per cent for urban and 56.6 per cent for rural areas.

South-west zone had the highest rate of 82.3 per cent; closely followed by South-east (81.6 per cent) and South-south (76.8 per cent). The lowest proportion was from the North-west (42.2 per cent). Gender disaggregation showed that net enrolment was 63.0 per cent for males and 59.8 per cent for females.

Satisfaction:
This is defined for all person currently in primary school who cited no problem with school. 58.3 per cent of children of primary school age expressed satisfaction with primary education services. About 67.0 per cent of primary school children in the urban area were satisfied while satisfaction in the rural areas was 54.5 per cent. Majority of the children in South-west zone (76.8 per cent) were satisfied with schooling while 65.1 per cent in the South-east, 58.0 per cent in the North-west and 54.8 per cent in the south-south were satisfied. North-central had 50.3 per cent while the lowest satisfaction rate was recorded in North-east (37.2 per cent). There were no significant gender differences in satisfaction in the school services. Below is the graph showing primary school indicators.

Fig 3.1: Primary School Indicators
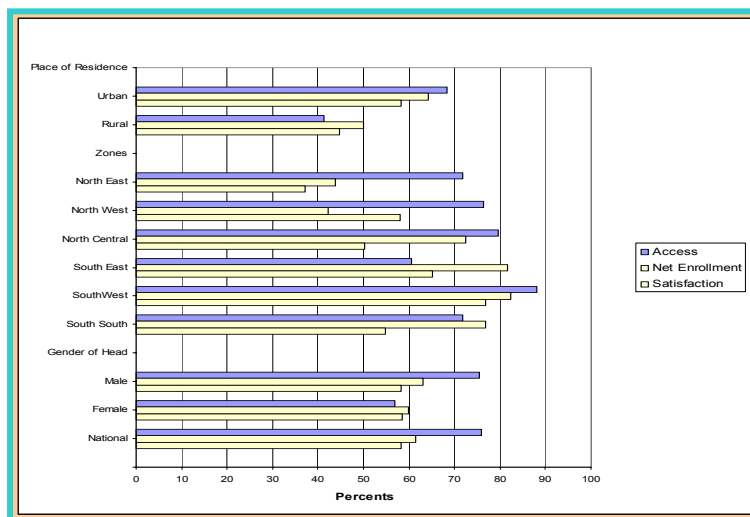
SECONDARY SCHOOL

Access
Access is defined for children of secondary school age (12-16 years) in households who could reach a school in less than 30 minutes using the transport facilities commonly available to the household. About 47.0 per cent of secondary school children had reasonable access to secondary school in the country, with urban area rate almost doubling (69.3 per cent) that of rural areas (37.5 per cent). South-west zone had the highest access (69.4 per cent). In the zone, Lagos state had the highest rate of 87.6 per cent followed by Osun State (62.5 per cent) and Ekiti State (61.5 per cent). The zone with the lowest access was South-east zone (32.3 per cent). Zamfara State had the lowest

(18.1 per cent) among all the States in the country. The rate for male was 46.1 per cent which is lower than the female rate of 48.8 per cent.

Gross Enrolment

Gross enrolment is defined for all persons currently in secondary school (JSS I to SSS III) regardless of age. The National figure for gross enrolment was 74.5 per cent. Urban area had a gross enrolment rate of 91.1 per cent while the rate in the rural area was 67.2 per cent. From the data generated, four zones had rates above the National average. The zones are South-south (99.5 per cent), South-west (96.7 per cent); South-east (95.6 per cent) and North-central (81.9 per cent). Two zones North-east (45.0 per cent) and North-west (41.6 per cent) had figure below the National average. The gender disaggregation showed 76.2 per cent for male and 72.5 per cent for female.

Net Enrolment

This is defined for children of secondary school age (12-16 years) currently in secondary school (JSS I to SSS III). Overall enrolment rate was 45.6 per cent.

Enrolment rate for urban area was 59.3 per cent and 39.6 per cent for the rural area. South-west zone had the highest (64.9 per cent) while North-west had the lowest (25.4 per cent). The analysis by socio-economic group showed that private formal had net enrolment of 64.3 per cent while self agriculture had the lowest rate of 35.6 per cent. Net enrolment rate for the male was 45.4 per cent and 45.9 per cent for females.

Satisfaction

Satisfaction is defined for all persons currently in secondary school who cited no problem with school. The report from the survey showed a National satisfaction rate of 56.6 per cent. Urban areas satisfaction was (64.9 per cent) higher than rural areas (51.6 per cent). About 72.0 per cent of secondary school children from the South-west zone were satisfied with schooling (74.8 per cent) followed closely by North-west (58.2 per cent) and South-east (53.4 per cent). The zone with the lowest satisfaction rate was North-east (42.1 per cent). Below is the graph showing secondary school indicators.

Fig 3.2: Secondary School Indicators
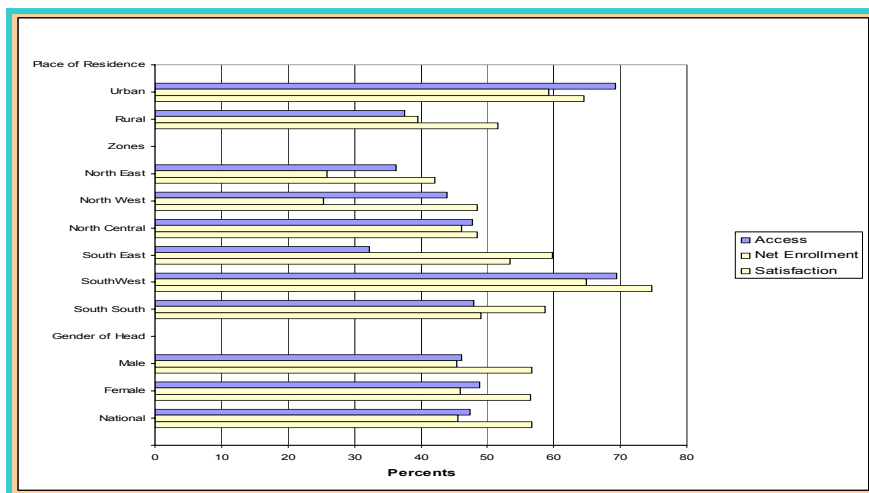
Reasons for Dissatisfaction

Children are encouraged to go to school, when the school environment is conducive for learning. A poor environment and hostile teachers among other reasons tend to discourage children from schooling. As indicated in Table 3.2 and based on the result of the survey, 41.3 per cent of children were dissatisfied with schooling. The rural poor had the highest rate of 56.1 per cent while the urban areas 33.8 per cent. The North-east zone had the highest rate of 60.7 per cent while the lowest was from the South-west (23.8 per cent). The highest rate of dissatisfaction was recorded in Taraba State (76.6 per cent) followed closely by Plateau State (73.6 per cent) while the lowest was from Osun State (10.6 per cent). Children from Sokoto State (72.7 per cent) had problem in acquiring books/supplies. Teaching was a major problem in States like Jigawa (45.7 per cent), Abia (40.3 per cent), Edo (36.8 per cent) and Rivers (36.7 per cent). Lack of teachers and teaching were major constraints in States like Jigawa, Gombe, Abia, Ondo and Rivers States. Poor facilities were the main cause of dissatisfaction. The children listed the main causes of their dissatisfaction as facilities (41.1 per cent), books/supplies (36.7 per cent), high fees (31.0 per cent), lack of teachers (23.7 per cent), teaching (21.6 per cent) and others (5.0 per cent). Below is the graph showing reasons for dissatisfaction.

Fig 3.3: Reason for dissatisfaction
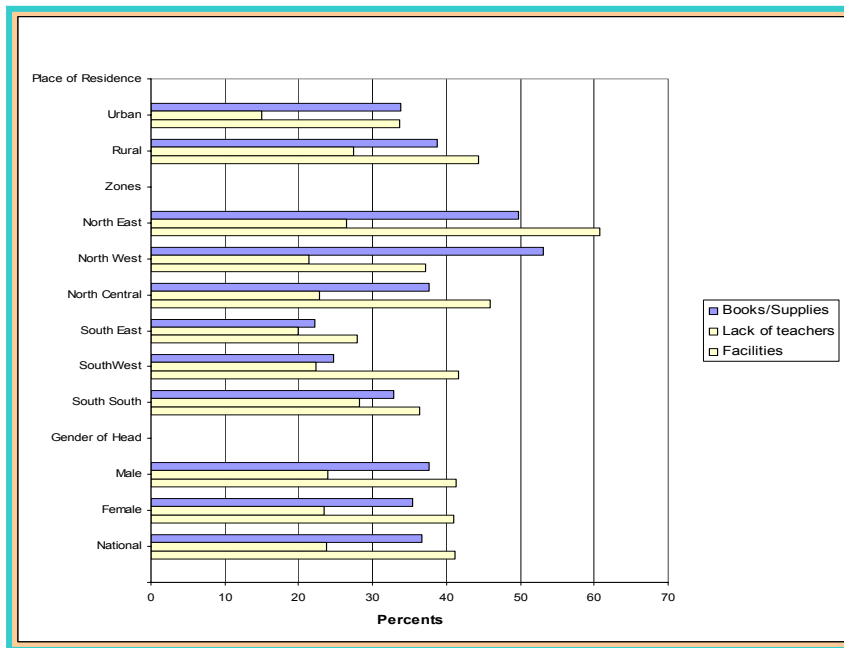
Reasons For Not Attending School

From Table 3.3 the percentage of children of school age not attending school was 4.5 t while there were slight differences between the urban rate of 3.9 per cent and rural rate of 4.8 per cent. About a quarter (25.6 per cent) had already completed schooling. The South-south zone recorded the highest rate of 6.3 per cent while the North-central had the lowest rate of 3.2 per cent.

Among the reason given for not attending school was expense (21.9 per cent). This was mostly experienced by children from the South-south zone with a rate of 37.1 per cent. About 21.6 per cent were still waiting for admission.

Drop out Rate

Table 3.4 showed that the drop-out rate for the Nation was 0.3 per cent made up of 0.4 per cent males and 0.3 per cent females. The drop-out rate for primary school children was high for girl's aged 11 years old (0.5 per cent). However, almost the same drop out rate was recorded for children aged 6 years (0.2 per cent) and 8 years (0.3 per cent) for both sexes respectively.

Based on the survey result, (Table 3.5), the drop out rate was very low for children of secondary school. 5 out of 100 students dropped out of secondary school. The least drop out was recorded for age-group 13 years (0.8 per cent) for both sexes.

Adult Literacy

Adult literacy was defined for persons aged 15 years and above who could read and write in any language. The National literacy was 5.7 per cent. The rate for male was 74.6 per cent and 58.6 per cent for females. Higher literacy rate was recorded for urban areas 79.6 per cent which was higher than the rate for rural (58.6 per cent). In the rural area, adult literacy rate was higher for age group 20-29 years, (80.0 per cent) while in the same rural area, female age group 15-19 years, (71.8 per cent) were the most literate. However, in the urban area adult literacy was higher for age-group 15-19 years, with recording males 93.6 per cent as against the rate of 90.5 per cent for females.

Youth Literacy

The youth literacy rate was defined for persons aged 15-24 who could read and write in any language. From Table 3.7, the National rate was 80.2 per cent, disaggregated into 85.90 per cent for males and 80.2 per cent for female. The urban rate was 91.8 per cent while the rural area rate was 74.2 per cent. In the rural area the result of the survey showed that 85.1 per cent in the age group 23-24 years were the most literate while female in the same age group had 68.2 per cent. The most literate in this sector were females (15-17 years) with a rate of 73.1 per cent. For the urban area, male (96.1 per cent) in the age group 21-22 years were the most literate as against females (91.3 per cent) who were in the group 15-17 years.

CHAPTER FOUR

HEALTH AND CHILD CARE

Introduction

The health status of a people generally determines their quality of life, level of productivity and life expectancy. The Government's policy among others is aimed at improving the health of all people by making basic health facilities accessible to all Nigerians. Information was therefore collected on some basic indicators to help assess the health status of Nigerians and guide policy decisions on health.

Access to Medical Services

Access to health was determined by the ability of household members to reach a health facility within 30 minutes. At the national level, 55.1 per cent of the population sampled indicated that they had access to medical facilities (Table 4.1). However there was a marked difference in accessibility between the populations residing in urban (70.9 per cent) as compared to those in rural areas (47.8 per cent) as well as between the rural (16.1 percent) and the urban poor (45.9 per cent).

Across the zones, South West (73.1 per cent), North Central (61.1 per cent) and North West (55.3 per cent) had rates above the national average while South East recorded the lowest figure (37.1 per cent)

In North East, the State rates ranged from 54.2 percent for Bornu which was above the zonal average (48.4 per cent) to 39.6 per cent for Yobe. In North West, the proportion was highest in Kaduna (61.1 per cent) and lowest in Zamfara (42.7 per cent) whereas in North Central zone, Federal Capital Territory had the highest figure (80.8 per cent) while Benue State recorded the lowest (42.0 per cent).

The South-East spread ranged from 53.8 per cent in Abia State to 17.3 per cent in Ebonyi State.
Lagos State had the highest access (76.6 per cent) in South-west while Ogun State recorded 67.7 per cent. Other States in the zone had rates above 68.0 per cent.
The proportion in South-south varied from 54.6 per cent for Edo State to 26.0 per cent for Akwa Ibom.

Need for Medical Services

The need for medical services was defined for those who were sick or injured in the four weeks preceding the survey. Generally few people had need of medical services. 8 out of 100 households (8.2 per cent) indicated need for medical services, while rural and urban areas differentials were not significant. Similarly the distribution in the zones, Gender as well as by socio economic group followed the same pattern. Nevertheless South East zone topped the list (14.6 per cent) while North West (6.1 per cent) had the lowest need (Table 4.1).

Fig 4.1: Health Indicators
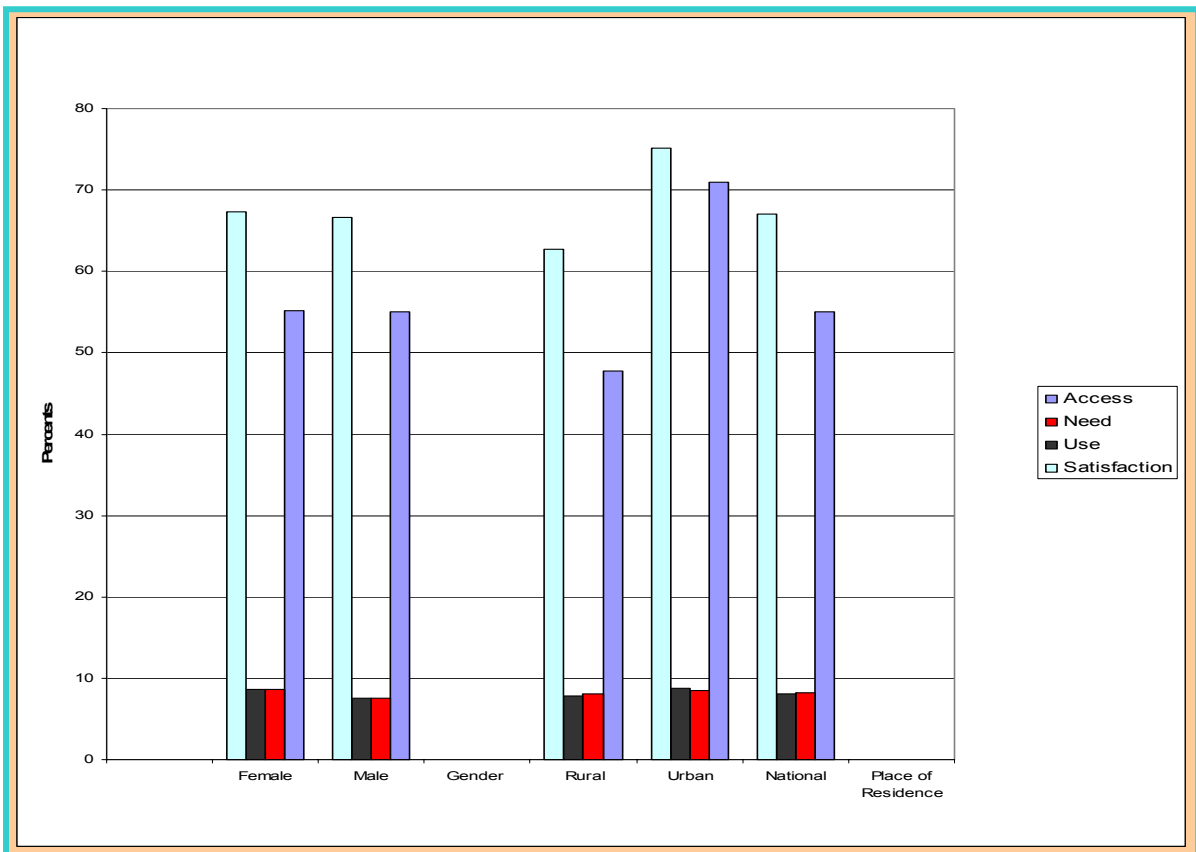
Out of the small percentage that reported sick or injured, fever or malaria accounted for the largest proportion (57.4 per cent) followed by pain in the back, limbs or joints (14.3 per cent) and Diarrhoea/Abdominal pain (10.0 per cent). The same trend was exhibited by gender and age groups (Table 4.4).

Use of Medical Services
Use of medical services is defined for persons who consulted a health practitioner in the four-weeks period preceding the survey. 8.1 per cent of the population made use of medical services. There was a slight variation among people living in the rural (7.8 per cent) and those in the urban areas (8.8 per cent) with no significant difference between the rural and urban poor. South-East zone (14.5 per cent) recorded the highest rate while South-south had the lowest (5.5 per cent). Analysis by gender, socio-economic group and age exhibited a similar spread (Table 4.1).

The leading health provider was pharmacist/chemist (32.3 per cent) followed by public hospital (26.9 per cent), private hospital (24.3 per cent) and lastly religious hospitals (1.3 per cent). A similar trend was observed at the zones, states within them as well as by socio-economic group (Table 4.5).

Fig 4.2: Health consultation by type of health provider
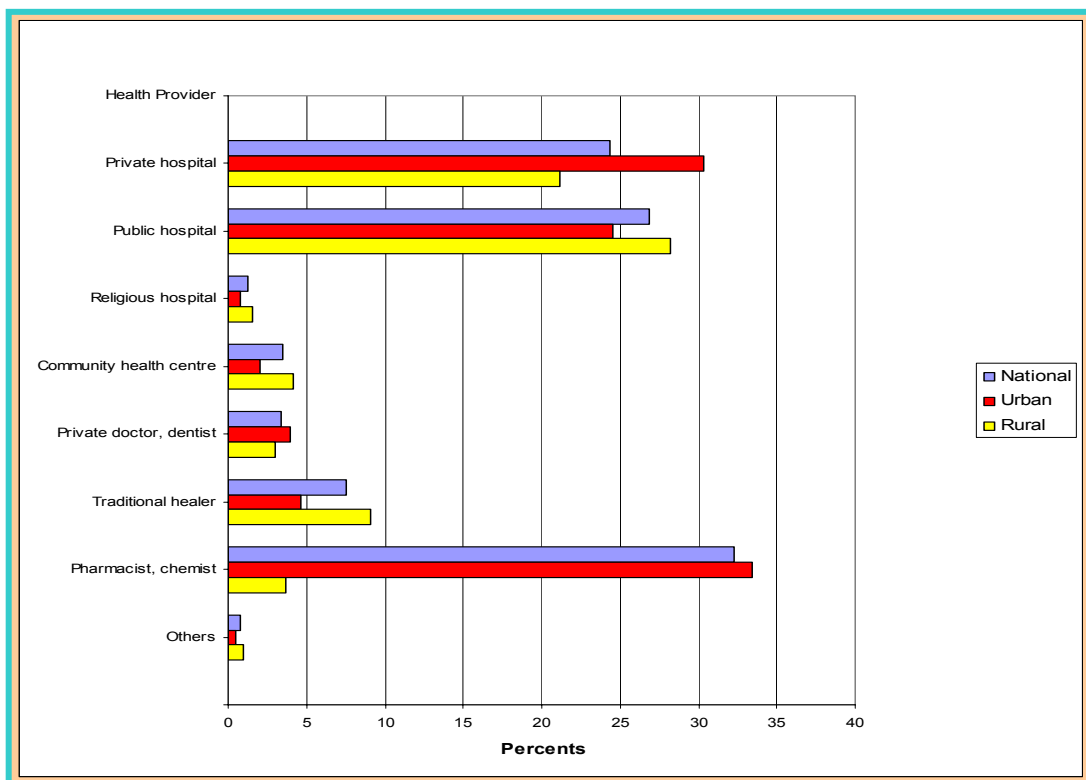
Generally, there was high level of non-consultation among health providers (91.9 per cent) in the four-weeks preceding the survey (Table 4.3). Of those who failed to consult, no need was the major reason (96.6 per cent) while the importance attached to other reasons were insignificant. A similar trend was manifested at the zones, across the states, as well as by socio-economic groups. Conversely the distribution of non-consultation by type of sickness/ injury assumed a different spread. The proportion ranged from 17.9 per cent for accident to
10.6 per cent for Diarrhoea/Abdominal pains. The rate for no need was highest (46.0 per cent) for coughing/ breathing difficulty and lowest for accident (23.8 per cent).

The proportion for cost was highest for accident while the lowest (31.9 per cent) was reported for coughing /breathing difficulty. 21.4 per cent was reported for distance under skin problem which was the highest rate and 9.4 per cent for Eye, ear, nose, throat and dental sickness which was the lowest.

Satisfaction with Medical Services
Satisfaction is defined for persons who consulted a health practitioner in the four-weeks period preceding the survey and cited no problems. About two-thirds pf the populations (67.0 per cent) expressed satisfaction with medical services with slight variation in urban (75.1 per cent) and rural areas (62. 7 per cent). The difference in satisfaction between rural and urban poor was insignificant (Table 4.1). The South-west zone (81.6 per cent) recorded the highest, while South-south (57.9 per cent) had the lowest. The other four zones had rates above 62 per cent. Across the states in North East zone, Adamawa had the highest satisfaction (70.0 per cent) while Taraba had the lowest (51.3 per cent). In North-West zone, state rates ranged from 72.6 per cent for Jigawa to 51.5 per cent for katsina.
FCT in North-central zone recorded the highest satisfaction (81.0 per cent) while Kogi had the lowest (58.1 per cent).
In South East Abia State recorded the highest figure (76.1 per cent) while Imo had the lowest (43.7 per cent). There was no significant difference in satisfaction among states in the South-south zone. All the state had rates above 74.0 per cent.
Analysis by Socio-economic group revealed that the highest satisfaction was recorded for private formal (76.6 per cent) while the lowest was for the unemployed (59.7 per cent).
There was no significant variation by gender. Dissaggregation by age groups revealed that age groups 0-4 and 5-9 recorded almost the same rate (about 70.0 per cent) while 50-59 years reported 62.0 per cent satisfaction.

Dissatisfaction with Medical Services
Out of the population that were dissatisfaction with medical services (33.0 per cent), majority cited cost (52.4 per cent), treatment unsuccessful (20.5 per cent), No drugs available, (19.6 per cent) and long wait (18.9 per cent) as their major reasons for dissatisfaction as shown in Table 4.2 The distribution followed the same pattern at the zones, (across states in the zones) Socio economic groups, gender as well as by type of provider.

Reproductive Health Care and Child Delivery

Prenatal Care is one of the primary health-care services available to all females of child bearing age. 72.3 per cent of all the women who had a live birth during the year preceding the survey reported that they had prenatal care (Table 4.6).

The survey also revealed that most live births were delivered by females within the age group 25-29 years (15.6 per cent) and to a leaser extent 20-24 and 30-39 years (11.7 per cent i.e the same rate) and 15-19 years (4.6 per cent). The least live birth was reported among females in age group 12-14years (0.5 per cent). There was a significant variation in prenatal care received by the women who had live births in rural (64.4 per cent) and urban areas (90.1 per cent) as well as between the rural (54.9 per cent) and the urban poor females (74.3 per cent). Across the zones, the highest prenatal care was received by females from South-west (94.8 per cent). Other zones which had rates above the national average were South-East (93.3 per cent), North Central (86.2 per cent) and South-south (81.6 per cent). The lowest proportion was reported in North-west (48.7 per cent). Analysis by socio economic groups followed the national and zonal patterns with the highest prenatal care recorded for public (90.5 per cent) and the lowest for self agriculture (57.1 per cent).

More than half (56.8 per cent) of live births in the five years preceding the survey were delivered at home while 40.9 per cent were in Hospital / Maternity (Table 4.7). In North East and North West zones more than 80.0 per cent of births were delivered at home whereas deliveries in Hospital/Maternity in South East (83.8), South West (78.2 per cent) and South-south (49.8 per cent) were more than that at home. Disaggregation by socio economic group showed that females in private formal (71.2 per cent) had the highest deliveries in hospital/maternity followed by those in public enterprises (59.0 per cent) compared to 71.9 deliveries at home by those in self agriculture and the unemployed (63.2 per cent).

Generally, health professionals are responsible for the delivery of the majority of the nations babies (48.6 per cent) disaggregating to Doctors (7.5 per cent), Nurse (27.5 per cent), midwife (9.0 per cent) and trained traditional birth attendant (4.5 per cent). The implication is that most deliveries by the professionals were handled by nurses.

The contribution of self in child care delivery was also significant (14.7 per cent). Analysis by place of residence, zones and socio-economic group exhibited a similar pattern (Table 4.8).

Fig 4.3: Life birth by persons who assisted in delivery.
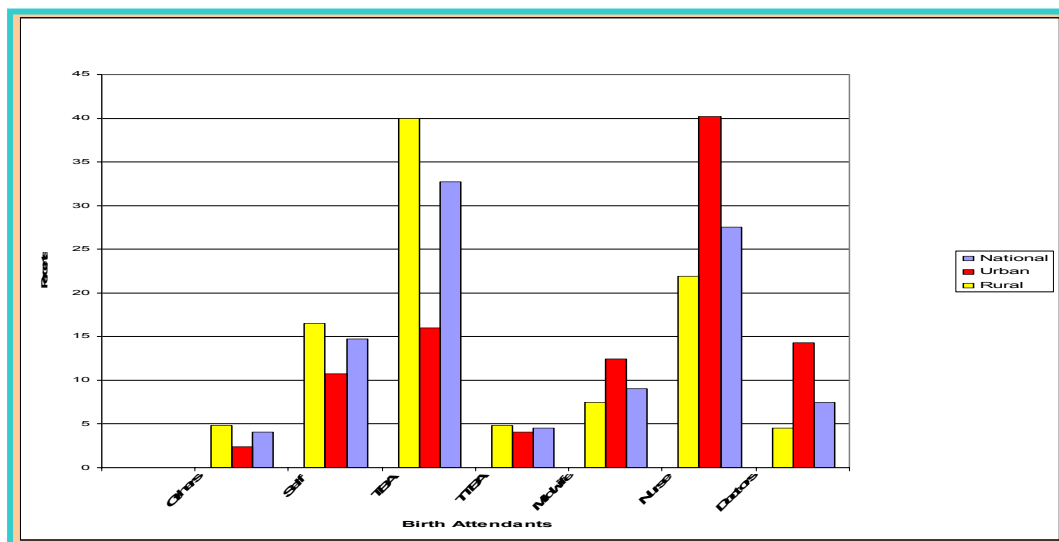
Physically or Mentally Handicapped.
Handicap in any form (physical or mentally) could prevent a person from engaging in any significant social or economic activity.
To enable the physically or mentally handicapped harness their creative potential for development the constitution of Federal Republic of Nigeria guarantees the right of the disabled for special treatment.

From the survey result (Table 4.9), 36.3 per cent of the population of the physically or mentally challenged are crippled or lame while 20.2 per cent are blind. Other forms of handicap like Deafness and dumbness constituted 9.0 per cent and 7.9 per cent respectively.

The zone with the highest number of the crippled was North East (42.5 per cent) while the lowest was reported in South-South (12.9 per cent). Distribution by age-group recorded the highest proportion of the crippled or lame among age group 0-4 years (42.2 per cent) followed by 5-9 and 15-19 years with about the same rate (above 36.0 per cent). There was no significant variation across socio economic groups and gender.

CHAPTER FIVE

EMPLOYMENT

Introduction
The demand for employment opportunities in the country is high and ever-increasing, which always exceeds the supply. Policies and programmes that help to increase employment opportunities will therefore assist in alleviating poverty, since the issue of unemployment is directly linked to poverty.

In terms of economic activity, the population were divided into two groups – Active and Inactive. The active (or Labour Force) is that part of population who actually engages or attempts to engage in the production of economic goods and services, while the inactive are those who are not engaged in productive ventures with reasons such as age, education, infirmity, no work' etc. An economically active person may either be employed or unemployed.

In this survey, an active person is said to be employed if he/she is engaged in any economic activity four weeks prior to the survey. On the other hand he's said to be unemployed if, for four weeks prior to the survey he/she has been without work and is actively looking for work.

Labour Force Participation
The proportion of economically active persons aged 15 and above was 67.6 per cent, with rural and urban areas having 68.8 per cent and 65.3 per cent respectively. Also, the proportion of inactive persons was 32.4 per cent. The rural and urban areas had 31.2 and 34.7 per cent respectively. Three zones, South-south, South-west and south-East recorded economically active population above the national average, while North-Central had the lowest (63.4 per cent). North-West however recorded the highest inactive population (36.6 per cent) and South-South had the lowest (25.9 per cent)

About 90.0 per cent heads of households were economically active, with 22.2 per cent underemployed while 1.8 per cent was unemployed. More heads of households in rural (90.7 per cent) than urban households (89.0 per cent) were economically active. A higher proportion of male heads of households (91.3 per cent) than females (83.0 per cent) were economically active.

About 95.0 per cent of the economic active population were employed, 5.3 per cent were unemployed while 20.2 per cent were underemployed. A higher percentage of the population in rural areas (95.7) than the urban areas (92.6 per cent) were employed, with the unemployment in urban areas (7.4 per cent) higher than the rural areas (4.3 per cent). Three zones, North-West, North-East and North-Central recorded higher percentage of employment above national average, while South-South recorded the lowest (91.2 per cent). Almost equal proportion of Males (94.6 per cent) and Females (94.7 per cent) were employed, while 22.1 per cent Males and 18.0 per cent Females were underemployed (Tables 5.1 and 5.1c).

Youth Employment

The survey (Table 5.1b) showed that majority (62.9 per cent) of persons aged 15-24 were economically inactive, while only 37.1 per cent were active. Most youth in urban areas (70.9 per cent) were inactive as compared to 58.7 per cent in rural areas whereas, 41.3 per cent in rural areas and 29.1 per cent in urban areas were economically active. South-West recorded the highest (75.7 per cent) economically inactive youths, while North-East had the highest (50.6 per cent) proportion of economically active youths. There is no significance difference between inactive males and females. Eighty-six per cent of economically active youths were employed, while 14.0 per cent were unemployed. More rural youths (88.2 per cent) than the urban youths (79.7 per cent) were employed. North-West (94.2 per cent) recorded the highest proportion of employed youths, while South-South recorded the lowest (76.2 per cent). Also, a higher proportion of Females (86.7 per cent) than Males (85.3 per cent) were employed. Youth unemployment rates were highest in the South-South (22.3 per cent) while North-Central (10.7 per cent) recorded the lowest.

Mode of Payment

The survey indicated that 72.7 per cent of the active population were Self-employed, while, 13.4 per cent were on Regular employment, 11.7 per cent were Unpaid workers and 2.1 per cent were Casual workers. The proportions of the Self-employed and Unpaid workers were higher in the rural areas than in the urban areas. Urban areas had 23.0 per cent of Active population on Regular employment, which was more than double the figure for rural (9.0 per cent).

At the zonal levels, three zones; South-west, South-east and North-west had higher self-employment figure than the National average, while South-south had 72.0 per cent, North-central (67.1 per cent) and North-east (58.7 per cent). South-west had the highest percentage of population on Regular employment (17.8 per cent), followed by South-south (15.5 per cent), North-central (15.3 per cent) and the lowest North-west (9.1 per cent). North-east zone recorded the highest rate (29.7 per cent) of unpaid workers and South-west (2.2 per cent) was the lowest.

Higher proportion of females (74.7 per cent) than the males (71.0 per cent) were Self-employed, while more females were into Self-employment across all the age groups. Equally, more females (15.6 per cent) were unpaid workers, whereas higher proportion of males (40.7 per cent) in the age group 15-24 were unpaid workers. The main rate (17.6 per cent) was double that of female percentage in employment (Table 5.2). Findings of the survey (Table 5.2b) indicated that 72.3 per cent of the employed persons were Self-paid, while 12.8 per cent received Wages/Salary, 11.7 per cent were Unpaid workers while 2.1 per cent were 0.6 per cent and 0.4 per cent were casual hourly paid, received payment in kind and Commission respectively.

South-west recorded the highest (17.0 per cent) Wages/Salary earners, followed by South-south (15.1 per cent), North-central (14.8 per cent), South-east (12.1 per cent), North-east (8.7 per cent) and the lowest being North-west with 8.2 per cent. More Males, (16.9 per cent) than the Females (8.3 per cent) earned Wages/Salary, while a higher percentage of Females (74.5 per cent) and the Males (70.4 per cent) were Self-paid workers.

Employers

The survey revealed (Table 5.3) that majority (69.3 per cent) of the active household members engaged in Private household employment, followed by Small private enterprise (18.9 per cent), State government (4.2 per cent), Local government (2.7 per cent), Federal government (2.2 per cent), Large private enterprise (2.1 per cent), Parastatal (0.4 per cent) and International organisation (0.1 per cent).

Fig 5.1 Percentage Distribution of Employment by Employer
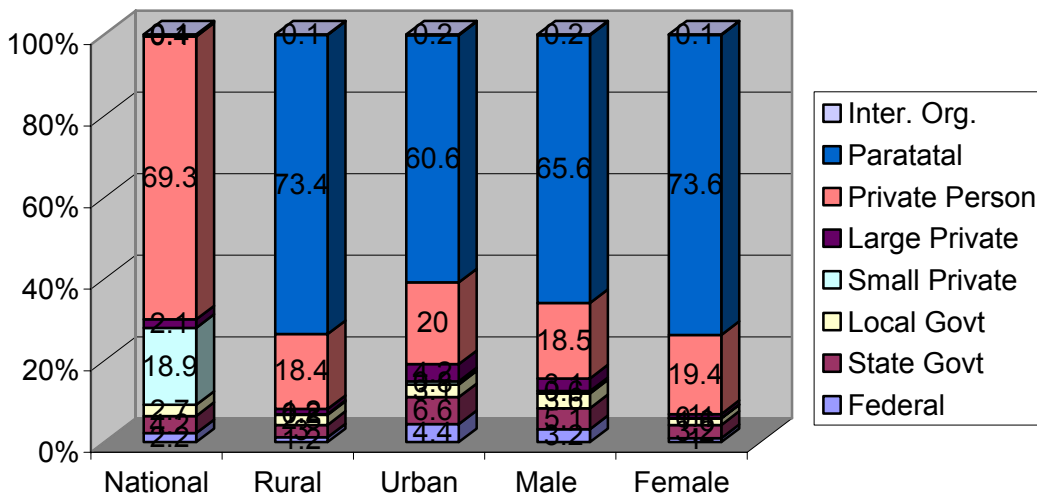
Private person/Household enterprise owners engaged the highest proportion of persons in both rural and urban areas. Also, the zonal disaggregation showed that Private person/Household employment engaged 81.0 per cent in North-East, 73.8 per cent in South-East, 73.4 per cent in South-South, and 65.3 per cent in North-west. Across the zones Federal government employment accounted for between 1.2 per cent in North-east and North-central 3.3 per cents.

Females were more into both Private person/household enterprises (73.6 per cent) and Small private enterprise (19.4 per cent), than males. However, higher proportion of Males were in Federal, State, Local governments, Large private enterprise and Parastatal than their female counterparts (Figure. 5.1).

Industry of Employment

Results of the survey (Table 5.4) indicated that the highest proportion of employed persons (39.3 per cent) were engaged in the Agriculture, while 24.3 per cent were in Trade, 11.8 per cent in Services, 4.5 per cent in Manufacturing, and Fishing engaged only 1.1 per cent. More than half, (51.1 per cent) of workers in the rural areas, compared to 13.8 per cent of those in the urban areas engaged in Agriculture.

Fig. 5.2 Percentage Distribution of Employment by Industry
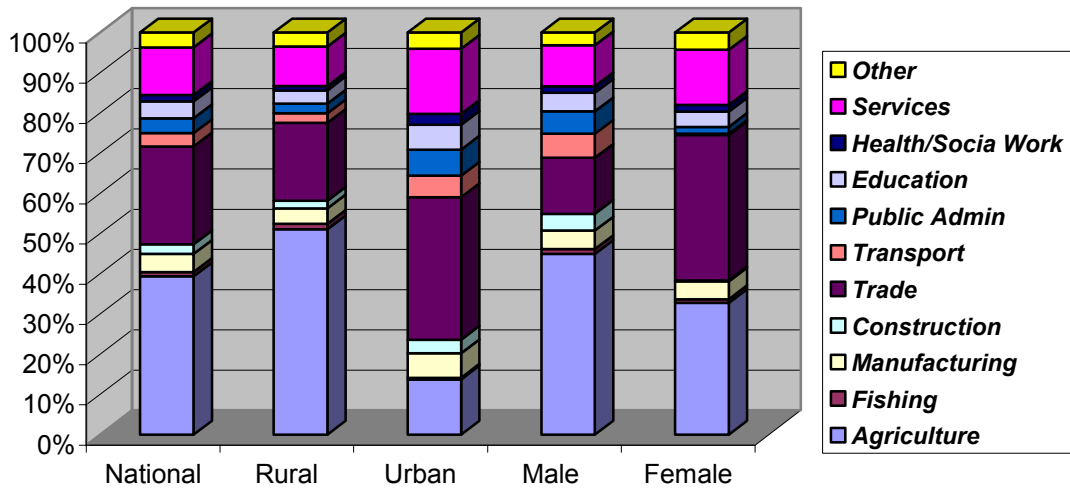
Four zones, North-central, North-east, South-east and South-south reported that workers were engaged in Agriculture (above the National average) the South-west and North-west had rates below the national average. South-west had a higher proportion of workers in Trade (37.2 per cent) and Services (13.9 per cent).

More males (45.0 per cent) than the females (32.8 per cent) were engaged in Agriculture, while a higher proportion of Females, than the males were into Trade and Service industries.

Table 5.6 showed that majority of the Government workers were in Public administration and Education industries. The distribution of employment in Parastatal indicated that 18.4 per cent males were in Public administration, 14.6 per cent in Electricity, gas and water and 12.9 per cent were in Social and Personal services, while 17.5 per cent females, were in Public Administration, 13.9 per cent in Health and social work, and 13.2 per cent in Education.

The Private business had 35.8 per cent males and 20.1 per cent females were in Agriculture and 49.1 per cent females and 19.0 per cent males in wholesale and retail trade. Also, more males (56.2 per cent) than females (39.0 per cent) in Private person/household employment were in Agriculture, while 35.5 per cent females and 14.7 per cent males in the same employment were in Wholesales and Retail trade (Figure 5.2).

Employment Status
The study revealed (Table 5.7) that 17.8 per cent Males and 8.8 per cent Females were on Regular employment, while, 70.8 per cent males and 74.7 per cent females were Self-employed. Also, 15.5 per cent females and 8.2 per cent males were unpaid workers; while 3.1 per cent males and 0.9 per cent females were Casual employees. More males than females in Regular employment worked with Parastatals. It also showed that more Self employed females (82.3 per cent), compared with males (72.2 per cent) were in Private business (Figure 5.3).

Fig. 5.3 Percentage of the employed by Employment Status
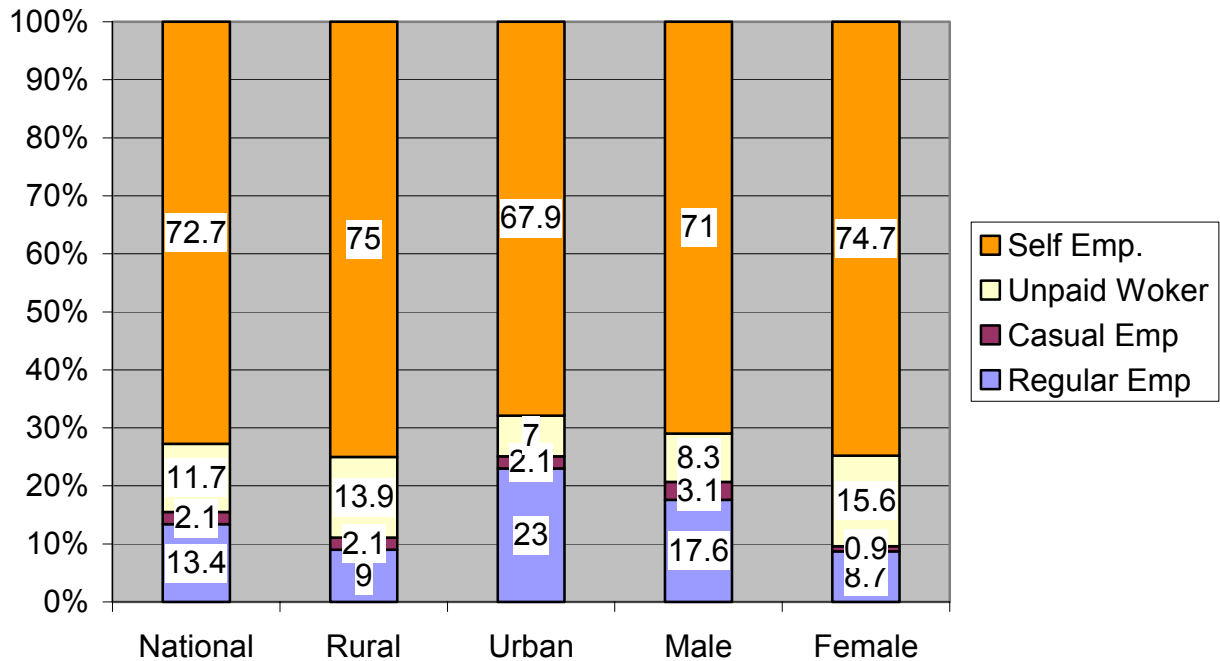

Table 5.5 showed that majority (45.0 per cent) of males were in Agricultural industry, 13.8 per cent in Wholesale and Retail trade, 6.8 per cent in Social and Personal services, while Mining employed the least (0.3 per cent). The study also indicated that majority of the females (36.2 per cent) were in Wholesale and Retail trade, followed by Agriculture (32. 9 per cent), Social and personal services (6.4 per cent) and Mining (0.1 per cent).

Out of workers on Regular employment, Public administration engaged 31.0 per cent, males and 19.0 per cent females, while Education engaged 39.4 per cent females and 23.2 per cent males. Construction industry had the highest Casual male employees, followed by Transport and Agriculture. A higher proportion of females (22.8 per cent) were in Wholesale and retail trade while 20.7 per cent in Agriculture were Casual employees. The majority of the Unpaid workers, both males and females were in Agricultural industry, while the majority (54.2 per cent) Self-employed male were in Agriculture whereas 45.8 per cent Self-employed females were in Wholesale and retail trade.

Under-employment
The survey result showed (Table 5.8) that 80.3 per cent of Self-employed persons were underemployed, while 10.7 per cent of the Regular employees, 5.6 per cent of Unpaid workers and 3.5 per cent of the Casual employees were underemployed. A higher proportion of Regular employees, (15.3 per cent) in urban areas and 8.6 per cent in rural areas were underemployed, while, more Unpaid workers and Self-employed in rural than urban areas were also underemployed. In the zones, South-south, North-central and South-west recorded higher underemployed persons on Regular employment than the

national average. Also, majority of Self-employed persons in South-west, North-west and south-East were underemployed. More females (83.8 per cent) than the males (77.7 per cent) on Self-employment were underemployed, the same pattern was exhibited among the age groups.

Table 5.9 showed that North-East (84.2 per cent) recorded the highest (84.2 per cent), Private Informal employee underemployment, followed by South-East and South-South with 70.3 per cent each and North-West with 57.5 per cent. About 7.0 per cent of Government employees were underemploymed, with 9.7 per cent in North-Central, 9.6 per cent in South-South, 6.0 per cent in South-East and (4.5 per cent) in the South-West zone. More males (8.4 per cent) than the females (4.2 per cent) in Government employment were underemployed, while more females, (69.9 per cent) than males (65.4 per cent) in Private Informal were underemployed.

Table 5.10, showed that the highest rate of underemployment was in Agriculture (33.3 per cent), followed by Trade (28.1 per cent), Services (12.6 per cent), Manufacturing (5.7 per cent) and the lowest was in Health and Social work (1.4 per cent). A higher proportion of persons in Agriculture and Fishing in the rural areas than in the urban areas were underemployed, while urban areas recorded a higher percentages of underemployment in other industries than the rural dwellers.

North-Central recorded the highest (48.5 per cent) underemployment in Agriculture, while the South-West had the lowest (16.3 per cent). Ironically, South-West had the highest proportion (39.0 per cent) of underemployment in Trade, while the North-Central also recorded the lowest (21.3 per cent). In four zones, South-East, North-Central, North-West and South-West, Fishing industry recorded the lowest underemployment, except in South-South and North-East zones with 3.9 and 1.8 per cents respectively. Agriculture with 38.3 per cent had the highest male underemployment, while Trade recorded the highest proportion (43.3 per cent) of female underemployment.

Unemployment by Reason
Unemployed person(s) are the active persons who did not work in four week period preceding the survey and who looked for work in the same period. As shown in Table 5.11, about 90.0 per cent of the unemployed persons said there was No work, while 3.6 per cent were Seasonally inactive, 2.5 per cent were on Household/family duties and 2.4 per cent were Students.

More persons (92.9 per cent) in urban areas than the rural (86.9 per cent) gave No work available, as reason for being unemployed while 5.4 per cent in the rural and 1.5 per cent in urban areas were seasonally inactive.
Four zones; South-West, South-East, South-South and North-Central recorded unemployment associated with no work available, while North-East (20.3 per cent) had the highest rate of unemployment related to seasonal inactivity.

Almost equal proportions of males and females unemployment were due to Non-availability of work, with more males' unemployment due to Seasonal inactivity while more females' unemployment was due to Household/family duties. More females (18.4 per cent) than

males (5.8 per cent) in age group 65 and above gave infirmity as reason for being unemployed.

Distribution of Economically Inactive Persons

Inactive population are those who are not working and are not looking for work. As shown in Table 5.12, majority (51.8 per cent) of the inactive population were Student, while 25.9 per cent were in Household/Family duties and only 4.3 per cent said there was No work available.

Two zones; North-West and North-East reported majority of Inactive persons in Household/Family duties, , South-West (73.0 per cent) South-South (68.6 per cent), South-East (66.9 per cent) and North-Central (62.3 per cent) recorded the majority of Inactive population as students. Majority inactive males (67.6 per cent) were students, while females (41.7 per cent) had majority inactive persons in Household/Family duties.

CHAPTER SIX

HOUSEHOLD ASSETS

This chapter presents results of the survey on perception of households on economic situation as well as that of the community. It also presents difficulty in satisfying household needs such as food, school fees, house rent, utility bills and health care. Ownership of assets, occupancy status, ownership of agricultural inputs with their sources and principal contributors to household expenses were also considered. The possession of a house and productive assets, such as land and livestock are important components of household welfare and are also significant indicators of changing economic conditions and standard of living.

Household Economic Situation of the Community Compared with Past Year
About one-third (32.2 per cent) of household reported that the economic situation of the community was same while 29.7 per cent reported better situation (Table 6.1). Rural households reported 33.2 per cent on better economic situation, while 37.2 per cent of urban households perceived that the situation had not changed. Two of the northern zones, North-east (48.2 per cent) and North-west (51.5 per cent) reported better situation, while the three southern zones, South-east (27.6 per cent), South-west (42.0 per cent) and South-south (41.2 per cent) reported same situation. Similar pattern was shown in the states under each zone. More than one third (37.6 per cent) of households with 1-2 members reported same situation, while 35.8 per cent of households reported better situation. More over, 37.6 per cent of households which reported same situation neither owned land nor livestock (36.7 per cent) and belonged to self-other group (35.0 per cent). The results showed that the household heads that reported better situation were more of males (31.5 per cent), who had polygamous marriage (40.6 per cent) and had no education (36.9 per cent).

Households Economic Situation Compared with past Year:
About one-third (34.7 per cent) of households reported better economic situation, while 28.6 per cent reported that the situation was same (Table 6.2). Rural households reported better situation of 36.7 per cent, while 33.3 per cent of urban households perceived same situation. Two of the northern zones North-east (53.1 per cent) and North-west (53.2 per cent) reported high percentage of a better situation, while the three southern zones; South-east (23.3 per cent), South-west (37.0 per cent) and South-south (36.1 per cent) reported high figure for 'same' economic situation. The states under each zone reported similar pattern. Forty per cent of households with more than seven members said that their situation was better while 35.0 per cent of households with 1-2 members reported same situation. 45.4 per cent of households which reported better situation owned 4-5 hectares of land and they owned both small and large livestock (55.5 per cent). They also belong to public group (40.0 per cent). It was shown that the heads of households that reported better situation were predominantly males (36.8 per cent) who were polygamous (44.0 per cent) and were not educated. (39.6 per cent).

Fig 6.1 Percentage distribution of perception of economic situation of households by gender of heads
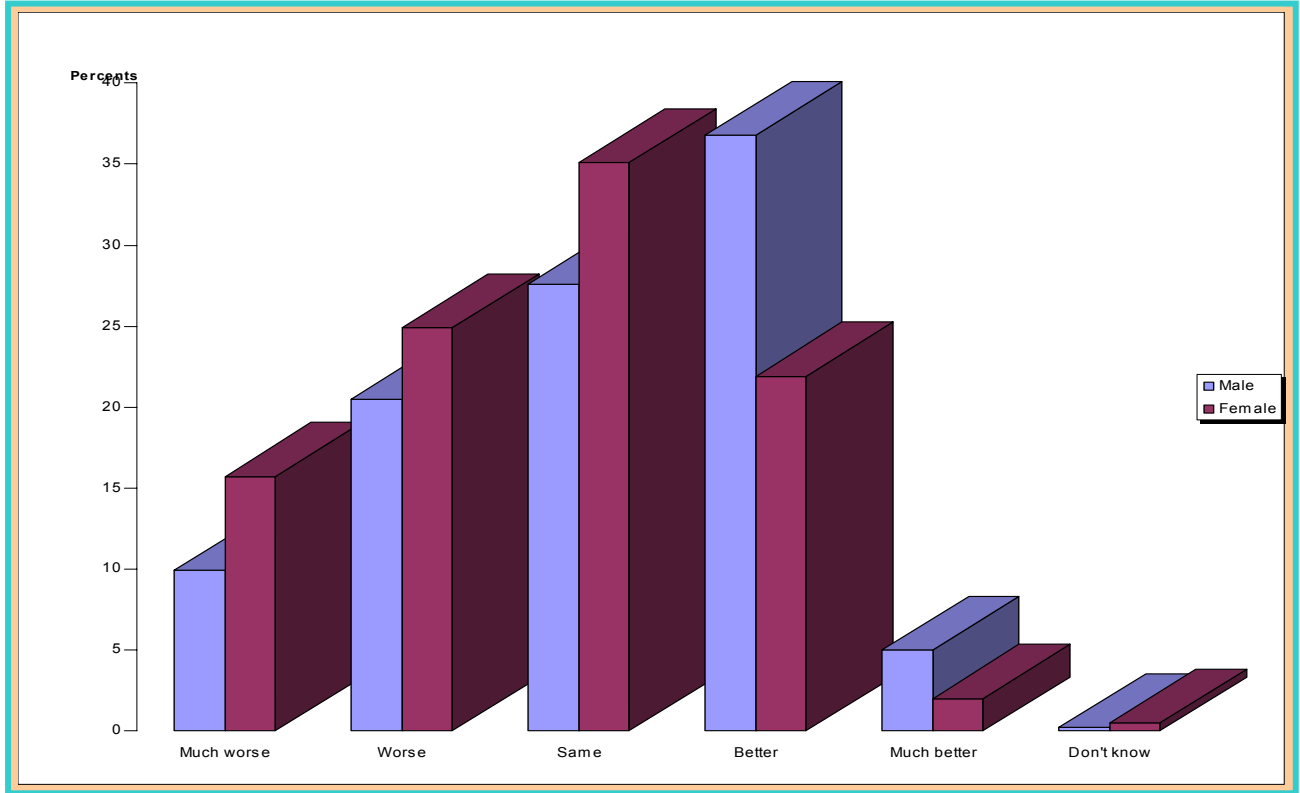
Difficulty in Satisfying Household Needs during the Year Before the Survey

The major needs considered were food, school fees, House rent, Utility bills and Health care.

Food

About 35.0 per cent of households, at national level, reported that they never had difficulty satisfying food needs, while 34.6 per cent said they sometimes had (Table 6.3a). About the same percentage in rural (35.3 per cent) and urban (35.4 per cent) areas said that they never had difficulty. Zonal disaggregation showed that two zones among the northern zones reported high figures for 'never', these were North-west (46.6 per cent) and North-central (48.0 per cent), while two states in the southern zones had high figures for 'sometimes', south-east (42.9 per cent) and South-south (45.9 per cent. The states under each zone also reported the same pattern. Moreover, four out of ten (40.5 per cent) households with 1-2 members never had difficulty, while 37.0 per cent of households with 5-6 members sometimes had difficulty. Also, about 44.0 per cent of households that owned 6 hectares of land and above reported never, while 36.4 per cent that owned less than 1 hectare sometimes had difficulty. Forty-seven per cent of households that owned both small and large livestock never had difficulty, while 36.5 per cent that do not own any livestock sometimes had difficulty. The households that reported never predominantly

belong to public group (42.1 per cent) that comprised of more male heads (36.6 per cent) who were polygamous (38.5 per cent) and had no education (37.5 per cent)

School Fees
More than half of households, at the national level, (51.0 per cent) never had difficulty in satisfying school fees need, while 25.1 per cent sometimes had difficulty as shown in Table 6.3b. Households that never had difficulty were more in rural (53.2 per cent), while urban households that sometimes had difficulty accounted for 27.1 per cent. The three northern zones; North-west (65.8 per cent), North-west (74.0 per cent), North-central (49.1 per cent) and two of the southern zones; South-west (47.1 per cent) and South-south (35.9 per cent) reported high percentages for 'never'. The states under each zone reported along the same pattern.   Majority of households that never had difficulty (74.0 per cent) had 1-2 members, while majority of those that sometimes had difficulty (32.8 per cent) had seven or more members. Highest percentage of households (60.8 per cent) that never had difficulty owned 2-3 hectares of land and the highest households (75.5 per cent) that never had difficulty owned both small and large livestock. Households in self-agriculture constituted highest percentage (55.1 per cent) that never had difficulty of school fees and more male-headed households (52.0 per cent) never had difficulty.   In addition, majority of single households (66.5 per cent) never had difficulty and most of the heads of household (61.8 per cent) that were uneducated had no difficulty of fees.

House Rent
In table 6.3c, the national figure showed that 81.5 per cent of households had no difficulty in paying house rent with a greater percentage in rural (89.8 per cent) than in urban areas (63.3 per cent).   All the northern and southern zones recorded high percentage of households that never had difficulty in paying house rent. The states in each zone reported along the same pattern. Moreover, households with seven members or more accounted for highest percentage (87.5 per cent) that never had difficulty and 95.0 per cent of households that never had difficulty owned 4-5.99 hectares of land. Apart from that, majority of households that never had difficulty (96.5 per cent) owned both small and large livestock. Socio-economic disaggregation showed that 93.0 per cent of household without difficulty were in self agriculture. On heads of household that never had difficulty in paying house rent, there were more males (81.8 per cent) than females (79.6 per cent) heads who were widowed or separated (82.9 per cent), followed by polygamous (80.2 per cent). Also, majority of heads of households (90.9 per cent) were uneducated.

Utility Bills
More than six out of ten households (61.0 per cent), at the national level, never had difficulty in paying utility bills (Table 6.3d). More households in the rural (69.6 per cent) than urban (45.0 per cent) areas never had difficulty.   Northern and southern zones recorded high percentage of households that never had difficulty in paying utility bills. The distribution in each state followed a similar pattern. Majority of households that never had difficulty in paying utility bills (64.5 per cent) had seven or more members and majority (75.1 per cent) also owned 4-5.99 hectares of land apart from being constituted by households that owned both small and large livestock (83.1 per cent). These households constituted those that belong to self-agriculture (74.0 per cent). Those who had no difficulty in paying utility bills were more of male (62.1 per cent) than female (54.5 per cent) headed households that were polygamous (69.8 per cent). Most of the households had head that were not educated (71.3 per cent).

Health Care
Almost the same percentage of households reported that they either never had (34.3 per cent) or sometimes (34.0 per cent) had difficulty in paying for health care (Table 6.3e) . More households in urban areas (40.0 per cent) never had difficulty while on the other hand, more rural household (35.9 per cent) sometimes had difficulty. Two of the Northern zones, North-west (43.2 per cent) and North-central (39.8 per cent) households that never had difficulty, while two of the southern zones, South-east (45.8 per cent) and South-south (41.0 per cent) of households never had difficulty. The states in each zone shared similar pattern. The results showed that highest households that never had difficulty belonged to public group (41.1 per cent) that were headed more by males (35.2 per cent) who were single (43.0 per cent) and who had above secondary education (38.5 per cent).

Ownership of Assets
About the same percentage of households owned land (63.6 per cent) and home (63.1 per cent) as shown in Table 6.4. Rural households owned more land (77.1 per cent) and home 75.9 per cent) than urban households. But ownership of motor-cycle more in urban areas (73.3 per cent) than rural areas (25.6 per cent). Two of the northern zones; North-east (83.9 per cent), North-west (83.7 per cent) had high percentage of households that owned land, while two of southern zones, South-west (67.4 per cent) and South-south (54.3 per cent) had high figures of households that owned motor-cycle and Land respectively.

Occupancy Status:
More than three out of five households (63.1 per cent) lived in their own houses (table 6.5a).   More households in rural areas (75.9 per cent) lived in there own houses than their counterpart in urban areas (38.4 per cent). The three northern zones, North-east (83.9 per cent), North-west (83.7 per cent) and North-central (63.7 per cent) as well as two of the southern zones, South-east (73.3 per cent) and South-south (52.7 per cent) had per-centage of households that lived in their own houses. Moreover, highest percentage of households that lived in their own houses had more than seven members (79.4 per cent) which comprise more of male heads (64.7 per cent) than female heads (53.9 per cent).

Secure Housing Tenure
Secure housing tenure is defined for households that have documentation to verify their occupancy status. Table 6.5b showed that 61.2 per cent of households, at the national level, had secure housing tenure. Urban households (73.5 per cent) had more secure occupancy than rural households (54.9 per cent). Zonal distribution showed that North-central zone had rates (68.4 per cent) above the national average and Benue state had highest proportion (88.4 per cent) in the zone, followed by Niger (82.8 per cent). Among the households that had secure housing tenure, those that had 3-4 members had the highest and they belong to private formal group which comprised mainly of male heads.

**Fig 6.2: Percentage distribution of housing tenure.**

Legend:
- Certificate of occupancy
- Leasehold
- Freehold
- Tenancy agreement
- Payment receipts
- None
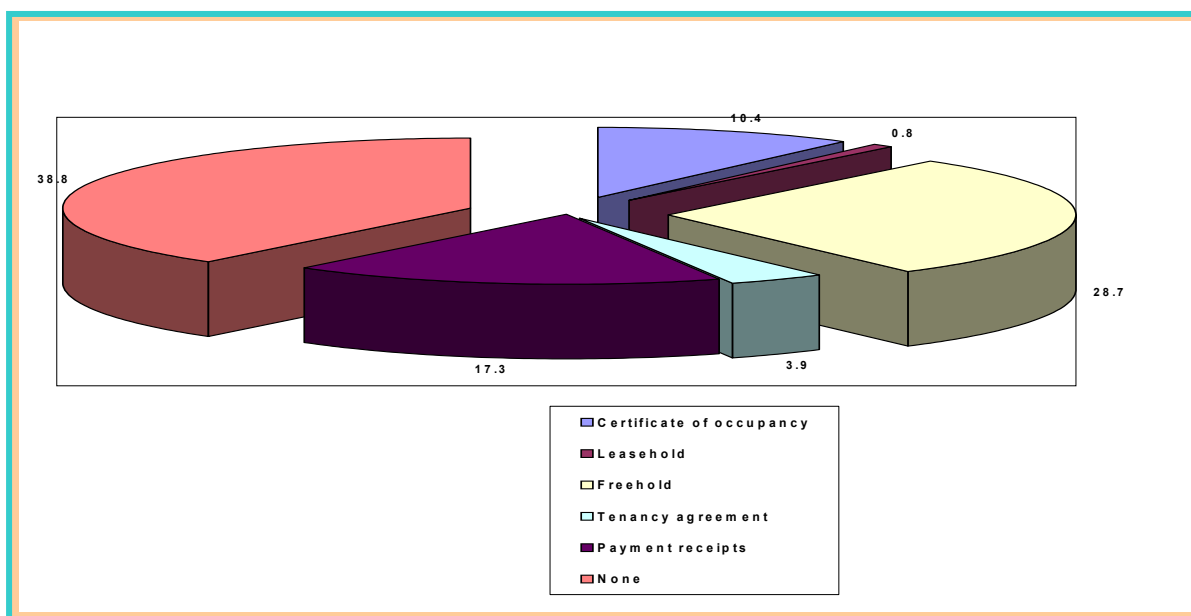
Use of Agricultural Inputs

Table 6.6a showed that at the national level, percentage of households that used agricultural inputs was 35.6 per cent, out of which 82.1 per cent used fertilizer and only 0.7 per cent used fingerlings. Majority of households that used agricultural input actually used fertilizer and were more of rural (83.7 per cent) than urban (73.0 per cent) households. Among the zones, North-west (91.3 per cent), South-east (87.4 per cent), North-east (86.3 per cent) and North-central (85.0 per cent) had rates above the national average. Kano state had the highest use of fertilizer (96.4 per cent) in North-west zone, followed by Zamfara (96.3 per cent). Moreover households with seven members and above that belong to public group (84.6 per cent) recorded highest use of fertilizer (86.6 per cent). The households comprised of more male heads (83.2 per cent) than female heads (66.9 per cent).

Fig 6.3: Percentage distribution of households using agricultural inputs.
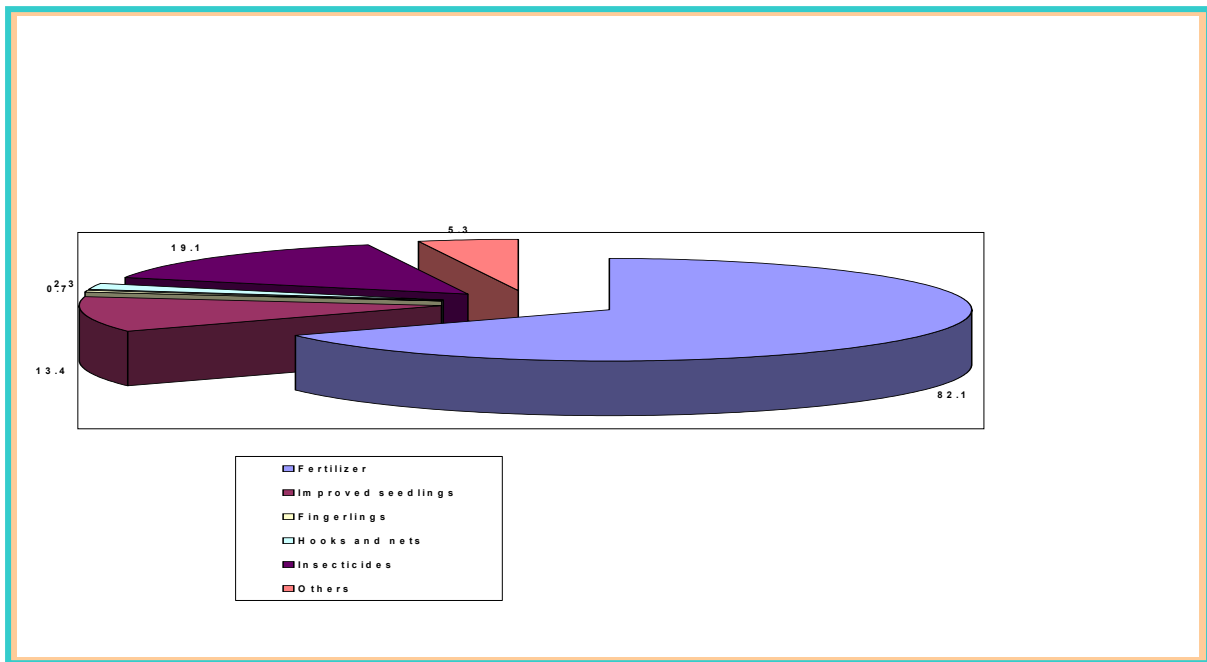
Main Source of Agricultural Inputs

Majority of households that used agricultural inputs sourced the inputs from open market (82.8 per cent), while the lowest (0.1 per cent) sourced from donor agency (Table 6.6b). Source of agricultural inputs from open market was more in rural areas (84.2 per cent) than in urban areas (75.1 per cent). All the northern and southern zones reported high figures of households that sourced for agricultural inputs from open market. The states in each zone showed similar pattern. Moreover, households with seven members and above which had highest sources from open market (83.6 per cent) were in self agriculture group (85.3 per cent) and they comprised mainly of male heads (82.9 per cent) than female heads (81.4 per cent).

Area of Land Owned

Table 6.7 showed percentage of households by the area (in hectare) of land owned.

The result of the survey indicated that 36.4 per cent of the households did not own land. The urban-rural breakdown recorded 22.9 per cent for rural areas and 62.8 per cent for urban areas. South-west zone recorded the highest (63.6 per cent) figure while North-east and North-west zones recorded the lowest (17.8 per cent) each. Of all households that owned land, 14.2 per cent reported that they owned between 2-3 hectares of land, while 26.1 per cent reported owning less than one hectare. In the rural areas, 29.1 per cent of households owned less than 1 hectare, while 9.1 per cent claimed ownership of between 4-6 hectares. Twenty per cent of households indicated ownership of less than 1 hectare of land in urban areas, while 2.6 per cent had 4-6 hectares. Household ownership of land between 2-4 hectares of land was higher (over 20 per cent) in the northern zones except North-central (16.1 per cent) than southern zones (about 6.0 per cent). Ownership of land,

less than 1 hectare, by households was highest in the South-east zone (53.1 per cent) and lowest in the North-east zone (14.2 per cent).

Ownership of Cattles

Generally the proportion of household members without cattles was high (84.6 per cent). Disaggregation by zones, household size, socio economic group and gender followed a similar pattern (Table 6.8). Distribution by number owned revealed that ownership of between 2-10 cattles was predominant (11.0 per cent), while 50 and above accounted for the lowest rate (0.6 per cent).

Crime and Security Situation Compared to One Year Ago:

About 11.0 per cent of the households in rural Nigeria posited that their economic situation had worsened over a period of one year which incidentally was the same as the national average. However a greater percentage (33.1 per cent) reported a better economic situation at the national level. The security situation was much better in North-east (34.4 per cent) and North-west (43.8 per cent) zones which exceeded the national average. It is worthy to note that 13.8 per cent of households members in North-central zone reported that security and crime situation was much better which was about the same with the national average (13.7 per cent). Whereas it was even higher in south-west (17.2 per cent).

Analysis by household size, areas of land owned, Type of Livestock, Socio-economic group, Gender, Marital Status and Education of Head of Household followed the national and zonal spread (Table 6.9)

Principal Contributor to Household Income

In table 6.10a, it was revealed that heads of household were the principal contributors to the households income at the national level (92.1), sectors and zones. Rural households had more (92.8 per cent) contribution by heads than urban (90.7 per cent) households. The states in each zone showed similar distribution. Households with heads as the principal contributors to income with seven members and above belonged to public group which comprised more male-heads (94.3 per cent) than female heads (79.1 per cent).

Principal Contributor to Food Expenses

Heads of households were the principal contributors to food expenses (68.1 per cent) at the national level (table 6.10b), sectors and zones. Urban households had more (70.7 per cent) head-contributors to food expenses than rural (66.8 per cent) households. The states in each zone had similar spread. The households with seven members and above had highest contribution of heads (83.4 per cent), which belong to public group and were headed more by males (70.2 per cent) than females (55.7 per cent) heads.

Principal Contributor to Education Expenses

Table 6.10c revealed that the principal contributors to household education expenses were the heads at the national level (89.5 per cent), sector and zone. Rural households had more (90.4 per cent) percentage contribution to education by heads than urban (87.6 per cent) households. The distribution across the states followed a similar pattern. The households with seven members and above had highest contribution of heads (92.0 per cent) which belong to self agriculture and comprised more of male heads (91.0 per cent) than female heads (80.1 per cent).

Household Pension

From table 6.11, it was shown that retirees who received pension at the national level was (3.5 per cent). A quarter (25.9 per cent) received pension regularly. The rate of retirees who received pension in urban areas (5.2 per cent) was twice that in the rural areas (2.6 per cent). From the survey report, it was discovered that retirees from South-south and South-east zones (4.4 per cent each) received pensions which was the highest in the country, while the lowest rate was from North-east (1.3 per cent). (28.9 per cent) of retirees with households size seven and above received pension regularly. About a quarter of Public officers received their pension regularly. Gender disaggregation showed that 3.7 per cent of Males received pension, while 2.3 per cent was recorded for females. Out of 100 retirees only 26 males and 25 females received pension regularly.

Ownership of Household Appliances

Household items mostly owned, at the national level, were mattress or bed (91.1 per cent), mat (84.9 per cent), watch or clock (81.5 pr cent) and Radio (81.1 per cent), while lowest proportion was recorded for personal computer (1.3 per cent), fixed line phone (1.5 per cent) and Gas cooker (2.5 per cent). In general, urban households owned more appliances than rural ones. Among the zones, ownership of modern stove (69.4 per cent), television (58.5 per cent), VCR (33.1 per cent), fixed line phone (3.0 per cent), mobile phone (48.0 per cent), personal computer (2.3 per cent), electric non (50.4 per cent), fan (67.4 per cent), refrigerator (27.6 per cent), furniture (65.5 per cent) and watch or clock (87.8 per cent) was recorded in South-west. It was also shown that households with 5-6 members had most ownership of the appliances with more male heads than female heads.

CHAPTER SEVEN

Households Amenities and Access to Social Services

Introduction
This section deals with the key amenities available within the households and the community. It's purpose is to obtain an extensive measure of the degree of access to a number of basic household amenities sensitive to households living standard. Some key indicators such as material used for roofing, walling, flooring of the house, source of drinking water etc, disaggregated by socio-economic group, gender of the head of household, sectors of residence (rural or urban) and geopolitical zone were considered.

Materials Used for Roofing, Walling and Flooring
The main materials used for roofing was taken into consideration in this survey. Three main roofing materials were prominently significant; roofing sheet, thatch and mud. Table 7.1 revealed that iron sheet (69.5 per cent) was the main materials used as roofing across the country. Sectors disaggregation showed that rural areas recorded 61.7 per cent while urban areas had 84.7 per cent. Four zones (North-central, South-east, South-south and South-west) had values above the National average while the other two zones North-west (41.4 per cent) and North-east (44.4 per cent) were below the national average. Mud and thatch were other materials used for roofing which account for 10.7 per cent and 13.7 per cent respectively. Again, it was observed that mud (14.6 per cent) and thatch (19.9 per cent) were mostly used in the rural areas. The use of thatch was more prominent in the North-East (45.3 per cent) while it was just few households in the South-West (1.1 per cent). In terms of household size and socio economic group there were no significant differences in the use of iron sheet. The gender disaggregation revealed that female-headed households (83.7 per cent) used more of iron sheet for roofing than male-headed households (67.2 per cent).

The result of the study, as shown in table 7.2 indicated that cement/sandcrete, mud/mud-bricks were the main materials used by households for their walls. About 51.0 per cent of the households across the country used cement/sandcrete. Urban and rural distribution showed higher percentage for urban areas (78.1 per cent) as against rural areas (36.1 per cent). Zonal disaggregation showed that majority of households in South-East (80.0 percent), South-West (74.7 per cent) and South-South (60.7 per cent) used cement and sandcrete for their walls while it was just few households in the North-west (17.0 per cent).

Use of mud/mud bricks across the nation was two in every five household (46.7 per cent). Rural and urban spread showed that about 61.0 per cent of the households in the rural areas and 20.3 percent in the urban areas used mud/bricks. The usage was more prominent in the North-East (75.5 per cent) and North-West (77.8 per cent) while it was few households in the South-East (19.3 percent) and South-West (23.2 percent).

The survey further revealed that more female-headed households (64.6 per cent) used cement/sand crete than male-headed (48.2 per cent). The reverse was the case in the use of mud/mud brick with male-headed and female-headed households recording 48.1 per cent and 33.1 per cent respectively.

Table 7.3 showed that across the country, the main flooring materials was concrete (65.9 per cent) . As expected, more household in the areas had concrete floors (89.6 per cent) than their rural counterparts (53. 8 per cent). The use of concrete across the zones showed that lager percentage of households used concrete floor with North-Central (65.1 per cent), South-East (85.3 per cent), South-West (85.8 per cent) and South-South (74.5 per cent) reporting higher rate compare to North-East (38.4 per cent) which was the lowest.

Mud/earth was another prominent material for flooring. The survey also revealed the about one-thirds of households were in this category (30.5 percent) while the rural rate was 41.6 per cent and just few households in the urban areas (8.9 per cent). Zonal diseggragation showed that most households that used mud/earth floors were from North-east (54.6 per cent) and North-west (53.7 per cent), while the south-west had just few households (12.1 per cent). Further disaggregation in term of household size, socio-economic group and gender of the head of household, showed no significant difference in the use of concrete and mud/earth.

Source of Drinking Water
The quality of drinking water is of great importance to the health of every individual. Table 7.4a indicated that the main source of water across the country was bore hole/hand pump (23.2 per cent) closely followed by River/Lake or pond (19.9 per cent).

Further categorisation revealed that about 12.0 per cent of the household had their source of water from pipe borne treated across the country and majority of them (25.5 per cent) were urban dwellers. South-West and North-Central were better off than the other zones while South-south had few households (3.9 per cent). Also the public sector took the lead (23.7 per cent) closely followed by private formal sector (20.4 per cent). There was no significant change in terms of household size and gender of the head of households.

The use of borehole/hand pump across the country revealed that accessibility was two in every five households. The zonal distribution showed that South-South had the highest percentage (34.2 per cent) while the North-central had the lowest (13.9 per cent). Distribution of Source of water from unprotected well showed that North-East took the lead (39.7 per cent), while South-East had the least (1.4 per cent).

Table 7.4b showed that the major provider of water was private (43.2 per cent) followed by government (24.5 per cent). The table also revealed that Government remains the highest provider of pipe borne water (80.5 per cent) and pipe borne water untreated (51.2 per cent) while the private remains the major provider of bore hold/hand pump (55.0 per cent), protected well (73.3 per cent) and vendor/truck (85.8 per cent). See fig 7.1.

**Figure 7.1: Distribution of Households by Source of Drinking Water**
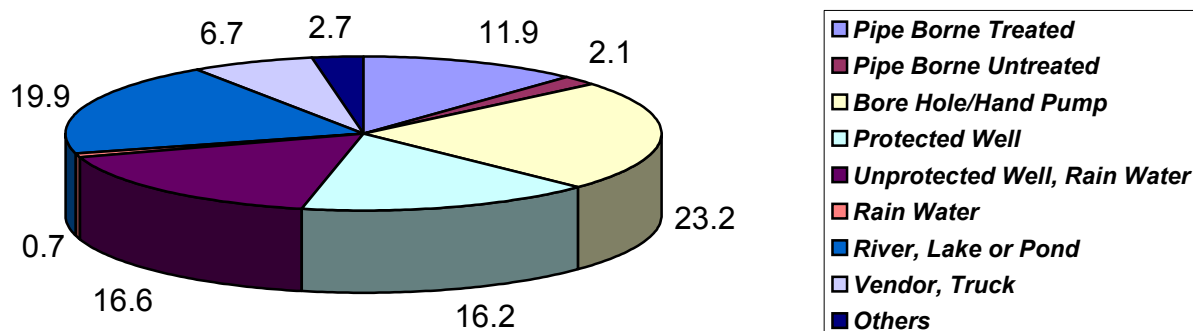
Sanitation:
Safe sanitation is defined for households using a flush toilet, covered pit latrine ventilator improve latrine, flush to sewer and flush to septic tank. Table 7.5 showed that about 58.0 per cent of households had safe sanitation. The proportion of urban households with save sanitation was 77.0 while the rural was 47.6 per cent. Zonal diseggregation showed that South-East took the lead (69.5 per cent) followed by south-west (62.1 per cent) while the North-east had the lowest (45.6 per cent). There was no significant difference by household size, socio-economic group and gender of the head of households.

About 44.0 per cent of household used covered pit latrine with 41.9 per cent in the rural and 46.9 per cent in urban areas. Zonal disaggregation showed that North-West took the lead (57.1 per cent) followed by South-East (49.4 per cent) while South-West (38.7 per cent) had the lowest. Household size, socio economic group and gender of the head of household had little or no significant differences.

Type of cooking fuel
In all, 71.0 per cent of households used firewood as main source of fuel for cooking. This was followed by kerosene/ oil with 25.8 percent and to a lesser extent electricity or gas (table 7.6). The use of firewood and kerosene varies between rural and urban households.

Fig 7.6   Percentage Distribution of Cooking Fuel
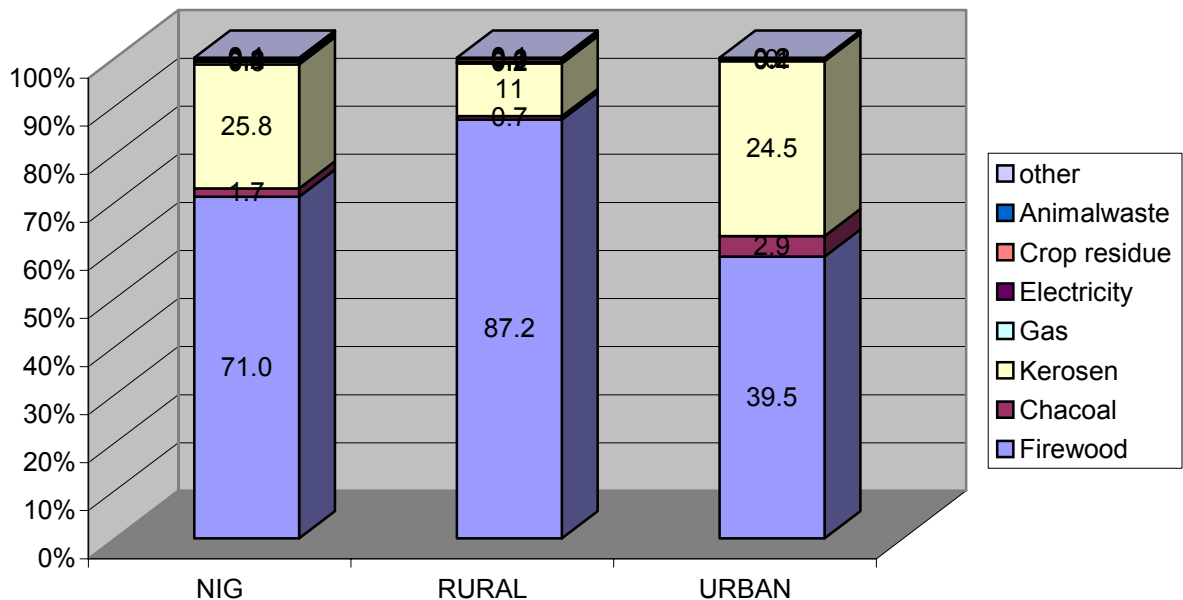
Most rural households to used more of firewood (87.2 per cent) while their urban counterparts used kerosene/oil (54.5 percent). Across the zones, majority of households in North-east (95.7 per cent) and North-west (91.0 per cent) used fire wood for cooking, while the use of kerosene was more prominent in the south-west (57.2 per cent).   The data further revealed that about three-quarters of the households use firewood for cooking. The use by gender of head of household had no significant differences.

Types of Lighting Fuel
Analysis by type of lighting fuel (table 7.7) showed that at the national level, 76.1 per cent of households used kerosene or paraffin while the use of electricity was just two in every five households (21.0 per cent). Rural – urban disaggregation showed that majority of the rural households used kerosene or paraffin (85.7 per cent) while urban recorded 57.1 per cent. The zonal distribution on reflected the national pattern. The only exception was South-West, where about (40.0 per cent) of households depend on main electricity as source of light. The household size, socio economic group and gender of the head of household spread showed no significant differences in the use of kerosene or paraffin.

Access to Social Amenities
Access is defined for households with facilities less than 30 minutes away. The following basic social amenities were considered; water, health, education, food market and public transportation.

Drinking Water Supply:
Over two-thirds (71.8 per cent) of households spend less than fifteen minutes fetching water (Table 7.8a). The percentage was much higher for urban households (84.5 per cent) than rural ones (65.2 per cent). The larger majority of households in the North-West (81.9 per cent) and South-West (84.3 per cent) spent less than fifteen minute while south-east

had the lowest (46.4 per cent). It was also observed that few households (16.8 per cent) in the South-East spent more time getting drinking water than others.

Health Facilities
The study showed that about one-third (30.5 per cent) of households spent less than fifteen minutes to reach health facilities with one out of every five household spending over one hour. Across the zones, South-West (43.8 per cent) took the lead followed by North-central (36.0 per cent). Across socio-economic group, private formal (42.1 per cent) spent lesser time to health facilities.

Access to Primary School
Generally half (50.1 per cent) of households across the country spent less than 15 minutes to get to primary school. The percentage was much higher for urban households (60.1 per cent) than rural ones (46.4 per cent). Further disaggregation across the zones showed that south-west (64.8 per cent), North-central (56.1 per cent) had rate above the national figure, while it was two in every five households in south-south (44.0 per cent). Among socio-economic group, public (58.9 per cent) and private formal (59.0 per cent) also spent lesser time. The highest percentage of households that spend over one hour was from North-east zone (13.6 per cent).

Secondary School
The distribution of time (in minutes) in reaching the nearest secondary school showed that about one-third (30.3%) of households spent between 30 minutes to one hour while it was about one out of every five households (24.0 per cent) in less than 15 minutes. The table also revealed that urban households spent lesser time (38.6 per cent) than the rural. It was also noted across the zones that South-West (40.1 per cent) and North-Central (25.6 per cent) had figures above the national average, while the North-east (40.2 per cent) had the highest household with over hour. Across socio-economic group, private formal took the lead (40.2 per cent) followed by the public (34.0 per cent) in reaching the nearest school in less than 15 minutes.

Food Market
The percentage distribution of households by time taken to reach the nearest food market as described in Table 7.8c, showed that one-third of the households (34.4 percent) reached the nearest food market in less than 15 minutes with few (16.1 per cent) households that spent over one hour. Across the zones it showed that South-West (49.1 per cent) spent lesser time compared with other zones. A closer observation revealed that North-East (28.1 per cent) had the highest proportion of over one hour to reach the nearest food market. Distribution by household size showed that about one-third of every household spent less than fifteen minutes.

Public Transportation:
Timely access to transportation is one of the important indicators of household's living standard; table 7.8c revealed that 54.2 per cent of households in the country had access to transportation in less than 15 minutes. Distribution sector of residence showed that more household in urban (76.3 per cent) than rural (42.8 per cent) areas had access. The zonal spread revealed that more than three-quarter of households in the south-west had access followed by North-central (52.3 per cent). It was also observed that one out of every five

households spend over one hour in getting transport in the North-east   followed by south-east (16.0 per cent).

Housing Units

The more the number of rooms and bigger the size compared to the number of occupants the better it is for their well-being as adequate room space allows for better ventilation, thus reducing the spread of air-borne diseases. The result of the survey as shown in table 7.9 revealed that about 68.0 per cent of households were living in single rooms, while, it was one out of five households that occupied whole building across the country. It was just few households in flat and duplex (7.0) and (0.4 per cent) respectively. The urban and rural breakdown showed that single rooms dwelling were more in the urban (72.8 per cent) than rural (65.8 per cent). Zonal disaggregation revealed that majority of the household in North-east and South-west lived single room dwelling and the table further showed that the situation was fair in the South-East with three out of five household (61.8 per cent) occupying a whole building followed by south-south (29.6 per cent).

Fig 7.9 Percentage Distribution of Housing Units
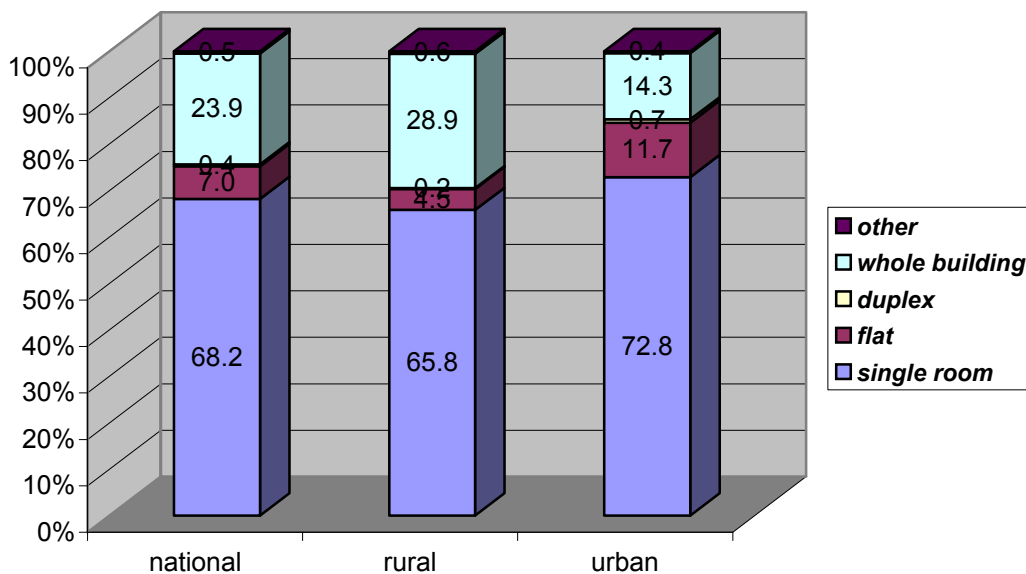
Anti-Malaria Measures

In all, a large majority of households (78.3 per cent) as shown in table 7.10 took measures in combating malaria. More than half, (52.8 per cent) used insecticide with one in every five households using anti-malaria drugs and herbs (23.6 per cent) and (20.1 per cent) respectively. Across the zones, majority of households took anti malaria measures, three out of five households used insecticide in the North-east and North-west, while South-South and South-East had about 35.0 per cent usage each. The table a lso revealed that two in every five household used herbs in south-west (28.6 per cent), South-east (27.0 per cent) and South-south (27.6 per cent). There were no significant changes in measures taken by household size, socio-economic group and gender of the head of households.

CHAPTER EIGHT

SOCIAL PROJECTS/SELF ASSESSED POVERTY

Introduction:
Poverty is a malaise to the society and as such, it is important that it is measured and monitored for it to be curtailed. To address this problem, government at all levels usually embark on policies and projects in communities where poverty is prevalent. It is pertinent to note that these projects are assessed to determine their impact on the well-being of the people. This survey was carried out to exactly perform the above function. To do this, some projects were examined in the last five (5) years preceding this survey. The outcomes of the examination would determine the type and level of interventions by government in order to curb the malaise of poverty in the society.

This chapter therefore looked at projects and the extend they have impacted on the lives of the people. These projects were ranked in order of importance by the people they were intended for. Also, the section looked at self assessment of poverty by the Households interviewed. Further more, the reasons for being poor and the coping mechanism in times of need would also be discussed.

PROJECTS EXECUTED IN THE LAST FIVE (5) YEARS AND IMPACT ON WAY OF LIFE:

The survey results in Table 8.1 showed that 13.6 per cent of households interviewed responded positively to the major projects that were executed in the last five (5) years preceding the survey. 53.0 per cent of the population reported that the projects had improved their way of life a great deal while 21.6 per cent reported that their way of live remained the same. 22.6 per cent said that little change was made to their way of life. Those without impact accounted for 2.9 per cent. Among the people interviewed, the highest acknowledgement of projects executed was in the area of rehabilitation of schools which represented 35.9 per cent. This was followed by more people owing houses (25.4 per cent), Building of schools (24.8 per cent), sinking of well/borehole (24.5 per cent), in that order. The least was in the area of Reforestation which accounted for 1.9 per cent. 13.6 per cent of both male and female headed households responded positively on major projects executed in table 8.2. There were no significant difference on the impact of the projects on the way of life of the two types of Household head.

Among the people who were interviewed in the rural areas, 12.2 per cent positively responded on projects executed in their communities. (table 8.3) This figure was lower than that of urban areas which stood at 16.2 per cent. There was however no significant impact of projects on the way of life of the people in the two sectors.

Based on the inquiries made during this survey on table 8.4, building of school was ranked most important (20.1 per cent), followed by Building of health facility (17.9 per cent), sinking of well/borehole (11.2 per cent) and electrification (11.6 per cent). This ranking explains the importance the society attaches to Education, Health, Water and electrification. On a general note, it should be noted that, not all projects executed by government are always useful to the community. Sometimes, due to political or selfish interest, projects are located in areas where they are not actually needed.

SELF ASSESSED POVERTY:

In table 8.7, the survey data indicated that 63.9 per cent of households members considered themselves poor while 36.1 per cent did not. The rural/urban distribution revealed that 67.0 per cent of households said they were poor in rural areas compared to 57.9 per cent in urban areas. Conversely, 33.0 and 42.1 per cents of households in rural and urban areas respectively, said they were not poor. Assessing the poverty status of households across the Zones, the North-East topped the list of those who considered themselves poor with 77.5 per cent. This was followed by South-East (76.8 per cent), South-South (66.1 per cent), North Central (62.8 per cent), South-West (61.4 per cent) and North-West (50.2 per cent), in that descending order. In the case of those zones who did not consider themselves poor, North-West recorded the highest figure of 49.8 per cent, followed by North-Central (37.2 per cent), South-South (33.9 per cent), and South-East (22.5 per cent).

Self Assessed Poverty by Size of Household:

Table 8.7 also showed that the higher the number of household size the less the percentage of people who said they were poor. The opposite is the case with the percentage of households who said they were not poor. This distribution differ from our normal households surveys which showed that the higher the number of household size the poorer the households.

Self Assessed Poverty by Ownership of Assets:

Generally, the percentage of households who said they were poor decreased as the area of land owned by households increased. On the other hand, the percentage of Households who said they were not poor increased as the area of land owned increased. However, the percentage of those who said they were poor decreased to a certain point after which it started rising as more land was made available but started decreasing at a point. The reason for this may not be far from the subsistence nature of our Agricultural production. The higher the level of technology used in agriculture, The fewer the number of farmers irequired. Table 8.7 also showed that 68.0 per cent of households who owned small livestocks were poor. This figure slightly dropped to 60.6 per cent for those who owned large livestocks. The percentage further fell to 55.2 per cent for those households who owned both livestock. The implication of this is that, the larger the size of livestock owned, the less the self perception of poverty. On the other hand, those who do not consider themselves poor increased from 31.8 per cent to 39.4 per cent as their livestock size increased.

Self Assessed Poverty by Social Economic Grouping:

The socio-Economic grouping showed that, households whose heads were engaged in agriculture, unemployed and private formal recorded the highest percentage of poor households with 68.4 per cent, 67.4 and 63.2 per cents respectively. Greater percentage of households who reported that they were not poor were those who were engaged in the public sector (49.4 per cent), private formal (45.0 per cent) and self-others.

Self Assessed Poverty by Characteristics of Head of Household:

70.5 per cent of female headed households compared to 62.8 per cent male-headed household heads reported otherwise. The survey also showed that the level of education of the household heads seemed to determined the level of poverty of the households. The higher the level of education, the lower the level of poverty.

Fig 8.1: Perception of Poverty by Characteristics of the House Heads
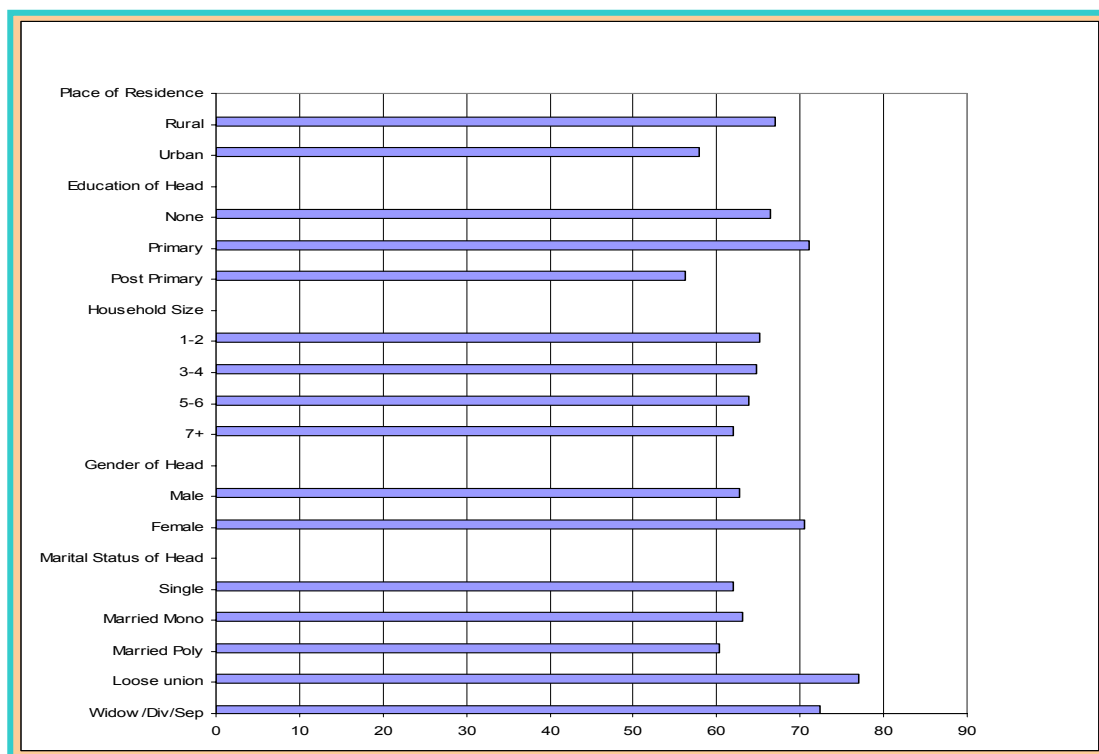
REASONS FOR POVERTY IN HOUSEHOLDS

From the data in table 8.8, most households that considered themselves poor attributed their poverty to their inability to afford basic needs (31.1 per cent). However, the second (12.4 per cent) third (13.3 per cent) and fourth (17.9 per cent) ranking of the reasons for poverty in the household was hard economic times of the country. There were however no significant difference in the percentage of reasons between male and female headed households as shown in table 8.9. The reasons for poverty in rural households differed significantly from the urban households. While rural households mentioned inability to afford basic needs as the most important reason, the second and third reasons were lack of capital to start/expand their farms and the fourth reason was that prices of commodities were high. The reasons for urban poverty were generally the same as the composite ones.

Fig 8.2: Distribution of Poverty by Self Assessment
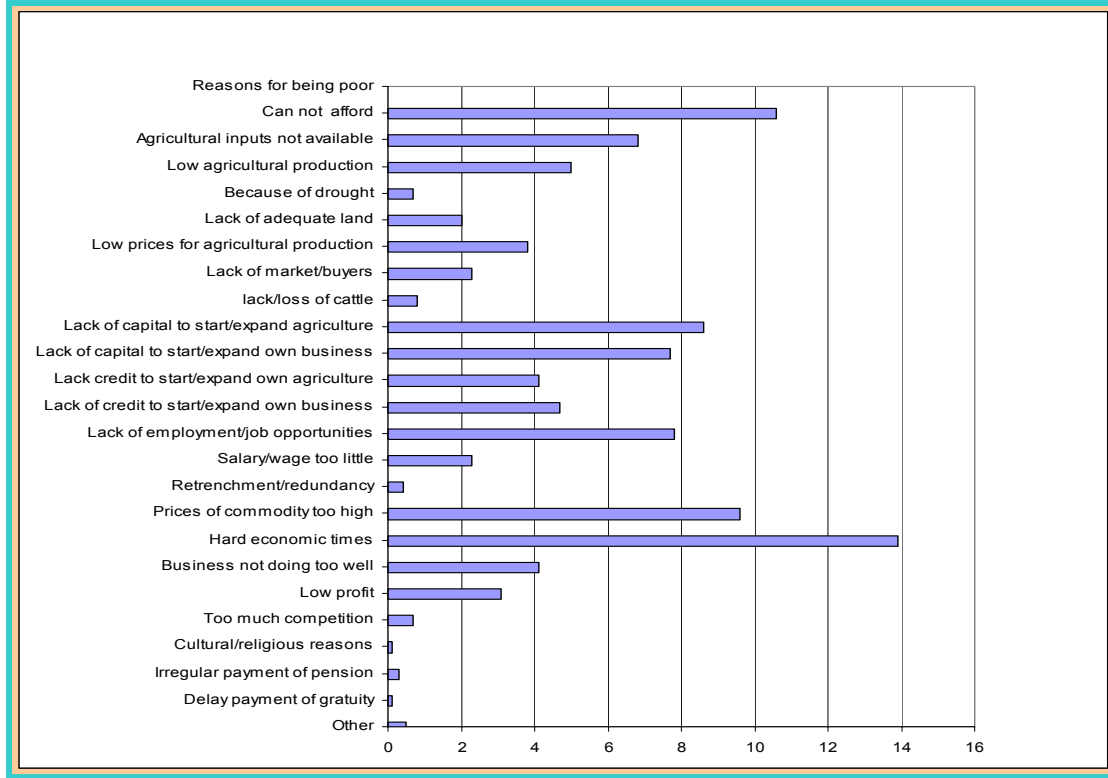
COPING MECHANISM

In coping mechanism, households were asked to rank their means of getting through difficult times of need from one (most important) to four (least important). From table 8.11, 18.5 per cent reported through reducing meals as the most important and 18.6 per cent coped through asking from friends. The third means of coping during times of need was through informal borrowing which accounted for 22.3 per cent. There were no significant differences in percentages between male and female headed households in times of need. Both acceded to reducing most of their meals during hard times as the most important, The least important means of coping during times of need in both types by house Head was asking from friends. The scenario as presented above, did not differ from the sectorial (rural and urban areas) distribution (table 8.13).

Fig 8.3: Distribution of Households by Coping Mechanism
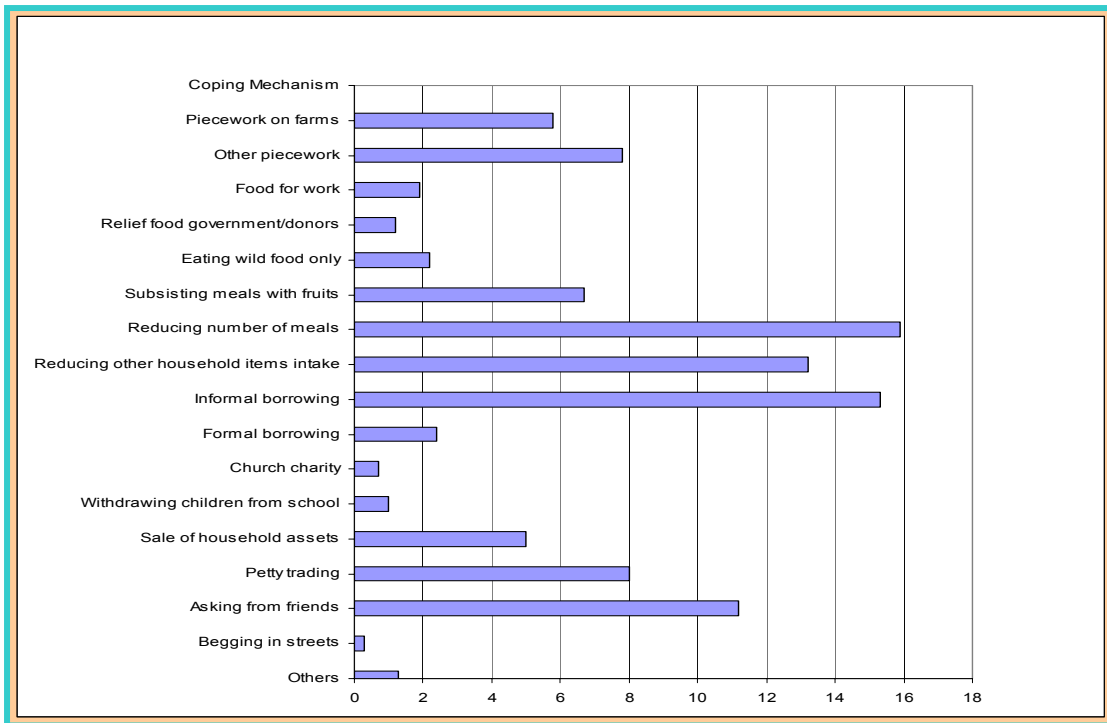
CHAPTER NINE

CHILDREN UNDER-5

Participation in Nutrition and Health Programmes

Participation of under-5 children in nutrition and health programmes could be used to determine the nutritional status as well as the growth of the child. Nutrition programme includes food distribution to the child or provision of meals to the child through NGOs or other institutions, while weighs-in programme includes participation in weighing in a health unit.

Table 9.0 presented the participation rates of under-five children in nutrition, weigh-in and vaccination programmes. The survey showed that 82.5 per cent of children participated in vaccination programme, 21.3 per cent in nutrition and 14.5 per cent in weigh-in programmes. Children living in the urban areas participated in the three programmes more than their counterparts in the rural areas. For vaccination programme, urban area had 90.0 per cent while rural area had 79.2 per cent, The rate for nutrition was 34.9 per cent for urban area and 15.4 per cent in rural area while weigh-in program accounted for 26.3 per cent and 9.3 per cent for urban and rural areas respectively. The South-west zone had the highest participation rates for the three programmes while North-east had the least except vaccination programm.

This was the case at sectoral, zonal and gender levels. The data further showed that there was insignificant difference in figures recorded by gender . However female participation rates in vaccination (82.7 per cent) and nutrition (21.4 per cent) programmes were slightly higher than their male counterparts, 82.3 per cent and 21.3 per cent respectively.

Birth Registration

The International Convention on the Rights of the child states that every child has the right to a name and a nationality, and the right to protection from being deprived of his or her identity, birth registration is a fundamental means of securing these rights. Only one-third 33.0 per cent of children under-five years of age in Nigeria had their birth registered (Table 9.1).

More than half (51.8 per cent) of under-five children in the urban areas had their births registered while rural areas recorded 24.7 per cent. Birth registration was much lower in the Northern zones than in the Southern zones. South west zone recorded the highest (56.4 per cent) rate while North-west recorded the lowest (20.0 per cent).

The percentage of births registered ranged between 13.0 (Yobe State) to 33.0 per cent (Adamawa State) among the States in the North-east zone, 2.2 per cent (Zamfara State) the 32.0 per cent (Katsina State) in the North-west, 19.6 (Nassarawa State) to 51.3 per cent (Kwara State) in the North-central, 34.0 (Ebonyi State) to 64.0 per cent (Abia State) in the South-east, 44.5 per cent (Ogun State) to 68.9 per cent (Lagos State) in the South-west and 15.3 per cent (Bayelsa State) to 54.7 per cent (Edo State) in the South-south zones.

There was little variation of birth registration between males (33.1 per cent) and females (32.9 per cent) and age in completed years. Overall, Lagos State had the highest (68.9 per cent) proportion of registration while the lowest rate was recorded in Zamfara State (2.2 per cent).

Place of Delivery

More than half (56.8 per cent) of under-five children were delivered at home while 41.0 per cent were delivered in the hospital/maternity. About 67.0 per cent of those delivered at home were in the rural areas while 34.0 per cent were in the urban areas. About two-thirds (62.5 per cent) of urban children were delivered in the hospital/maternity compared to 31.4 per cent in the rural areas.

Majority (83.8 per cent) of under-five children in the South-east zone were delivered in the hospital/maternity followed by 78.2 per cent in the South-west. Over 70.0 per cent of the children in all the States in the two zones were delivered in the hospital/maternity except Ebonyi State that recorded 42.8 per cent.

Fig 9.1: Distribution of Under-Five Children by Place of Delivery by National, Sectors, Zones and Gender.
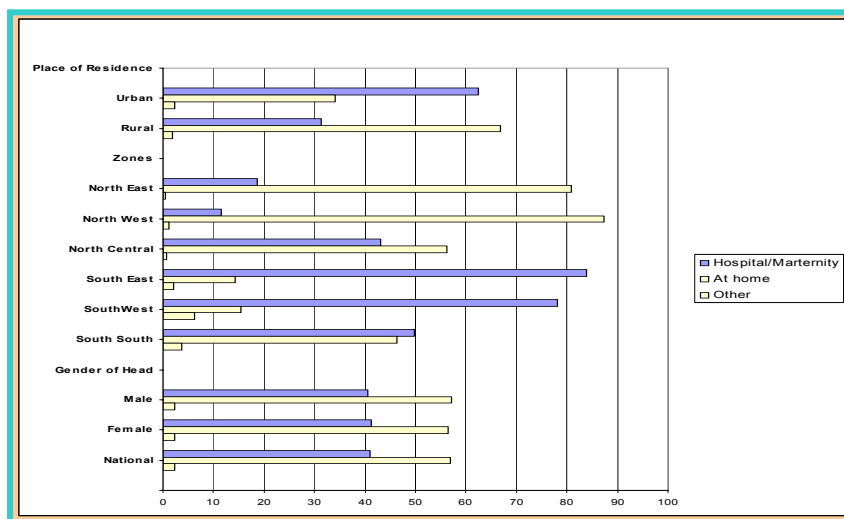
South-south zone recorded the lowest (49.8 per cent) figure in the Southern zones. Birth delivery at home ranged between 80.9 per cent (North-east) to 56.2 per cent (North-central) in the Northern zones. More than 70.0 per cent of children delivered in the hospital/maternity had their parents belonging to private formal socio-economic group compared with self-agriculture (26.6 per cent) sector. More males (57.1 per cent) than females (56.5 per cent) under five children had their birth delivered at home. There was no significant difference in the percentage of male and female birth delivered at homes.

Assistance during Delivery

The level of assistance provided by skilled personnel during delivery to a great extent determines the chances of survival of mothers and children. Skilled personnel include doctors, nurses, midwives and trained traditional birth attendants.

About half (48.5 per cent) of all births that occurred within five years before the survey were assisted by skilled personnel (Table 9.3) disaggregating to twenty-seven per cent by nurses 9.0 per cent by midwives and 7.5 per cent by doctors. Among the unskilled personnel, 32.7 per cent of births were assisted by the Traditional Birth Attendants (TBA) followed by self-assisted delivery (14.7 per cent) and others (4.1 per cent).

In the North-east zone, more than 60.0 per cent of births were assisted by the traditional birth attendants in Borno and Gombe States.

Immunization:

In order to reduce the attacks of infections and parasitic diseases, the National Programme on Immunization (NPI) was launched to ensure that infants and children are vaccinated against the killer diseases at the appropriate ages. To determine coverage, information is usually collected on the vaccination status of surviving children aged between 12-59 months. It is expected that children within this age must receive all the necessary vaccines. It is important to note that the extent of vaccination coverage is a good indicator of health status in a country.

Table 9.4 showed the percentage of children vaccinated by type of vaccination received. The percentages are presented by sector of residence, zonal residence by States, socio-economic group, gender and age in completed years.

Fig 9.2:   **Percentage of Children Aged 12-23 months who Received Individual Vaccines**

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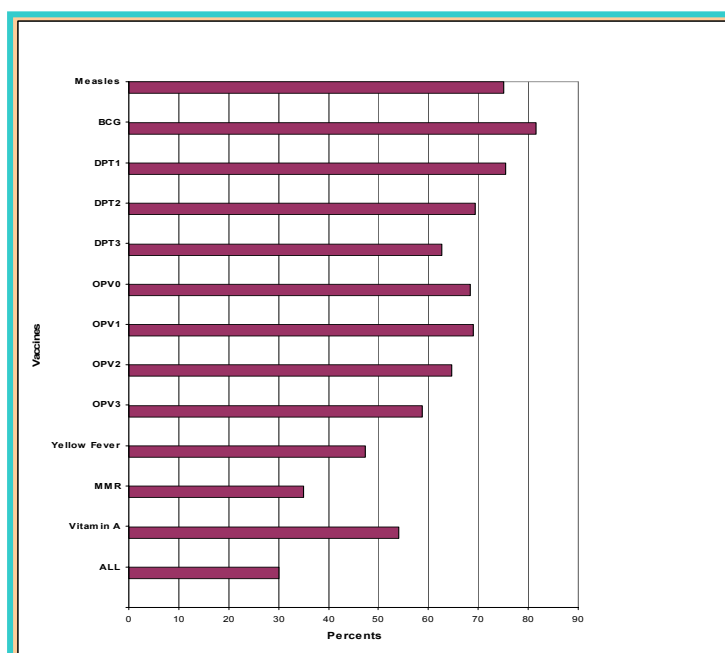
Overall, 30.0 per cent of children 12-59 months received full vaccination that is; they have had the Measles, BCG, DPT 3, OPV 3, Yellow fever, MMR and Vitamin A vaccinations. Urban children had higher vaccination coverage (40.1 per cent) than their counterparts in the rural areas (24.9 per cent). The zonal figures coverage for all vaccines were: South-west (46.6 per cent), South-east (40.0 per cent) North-central (32.0 per cent), South-south (25.1 per cent) North-east (22.1 per cent) and North-west (18.4 per cent). Approximately 80 per cent of the children received BCG vaccination. The percentage that received first dose of DPT1 was 75.5 per cent but declined for subsequent doses of DPT to 69.3 per cent for the second dose and 63.0 per cent for the third dose. Similarly, 69.0 per cent of children received Polio 1 and this declined to 58.7 per cent by the third dose. The South-west zone had the highest coverage for each of the vaccinations, Measles, BCG, OPV3, Yellow Fever, MMR and Vitamin A, except DPT 3 (Table 9.4). Of all the states in the South-west zone, Lagos State had the highest coverage (56.8 per cent) while Oyo State had the lowest (21.8 per cent). In the South-east zone, more than 40.0 per cent of all the under-five children in all the State except Imo State (27.6 per cent) were fully immunized.

In the North-central, FCT had the highest coverage (55.9 per cent) while Nassarawa State recorded the lowest (15.7 per cent). Immunization coverage was generally low in the North-east zone with Taraba State recording 32.3 per cent being the highest and 2.2 per cent recorded in Yobe State. The highest coverage rate was recorded in Katsina State (26.8 per cent) while Sokoto State recorded 0.8 per cent being the lowest in the North-west zone and in Nigeria in general. Immunization coverage for children whose parents belongs to other socio-economic group was highest (49.1 per cent) when compared with their counterparts in self-agriculture sector (25.1 per cent). The percentage of males who were fully immunized (29.4 per cent) was slightly lower than their female counterparts (30.6 per cent). This slight variation was noticed among the age categories for males and females.

Source of Vaccination Information

In the CWIQ Survey, women who had children under the age of five were asked if the child had received any of the vaccines. Inside the health card, the interviewers was required to confirmed that the child received all immunization against any of the diseases e.g. BCG, DPT, OPV, Measles, MMR recorded in the health card. This implied that the information on vaccination was from 'Health card'. On the other hand, if the child had no card or the interviewer was not able to examine the card, the mother was asked if the child had ever received a vaccination. Any response received was said to be coming from the 'Respondent'. The situation may arise where information on vaccination may be from both health card and the respondent; this was referred to as 'Both'.

Table 9.5(a) showed that majority (85.6 per cent) of information on vaccination was supplied by respondents who could be either the mother of the child, guardian or any responsible household member. Only 10.4 per cent of vaccination information was from health card while 4.0 per cent were from both. Similar pattern was followed in the sectors, zonal, socio-economic group, gender and age disaggregations.

Vaccination information through respondents by sector of residence indicated 86.9 per cent for the rural areas and 83.2 per cent for the urban areas while the corresponding figures through health cards were 9.6 per cent and 12.0 per cent for rural and urban areas respectively.

Majority of the zones and the States under them recorded higher rates above the national average on vaccination information through respondents except South-south zone which recorded the lowest (69.6 per cent). On vaccination information through health card, South-south zone recorded the highest rate (22.2 per cent) while North-east zone recorded the lowest (5.9 per cent).

Place of Last Vaccination

About one-quarter (37.4 per cent) of under-five children received their last vaccination at home, 28.1 per cent from health centre and 16.7 per cent from the hospital while less than one per cent (0.7 per cent) received their last vaccination from school (Table 9.5b). Forty six per cent of children in the rural areas received their last vaccination at home when compared with 20.1 per cent of their counterpart in the urban areas.

The zonal figures for coverage at home were higher in the northern zones ranging between 34.4 per cent (North-central) to 60.0 per cent (North-west) than in the Southern zones ranging between 6.4 per cent (South-east) to 40.7 per cent (South-south). The reverse was the case for coverage at the health centre that had higher percentage in the Southern zones than in the Northern zones. A similar pattern was followed in the States under each of the zones.

Only children of formal private sector households had their last vaccination received at health centre (34.5 per cent) higher than those that received at home (19.8 per cent). This was not the same in other socio-economic groups. While children who were less than one month old for both males and females had their coverage at health centre (35.4 per cent) and (34.4 per cent) respectively higher than at home (28.6 per cent) and (28.0 per cent). The reverse was the case in other age groups.

Reasons for Not Vaccinated

Table 9.6 showed the percentage of under-five children not vaccinated by reasons, according to background characteristics. There seemed to be some marked variations in reasons by sector, zones and gender. Overall, 32.1 per cent of respondents reported that they 'Did not know' child had to be vaccinated while 31.3 per cent said health centre was too far. Child too young had 17.5 per cent while child sick had the lowest (3.9 per cent). The major reason given in the rural areas was that health centre was too far (34.6 per cent) while in the urban areas it was that they didn't know child had to be vaccinated (48.9 per cent).

Five zones gave health centre too far as their major reasons, these included North-east (44.1 per cent), North-central (44.1 per cent), South-East (41.1 per cent), South-west (37.9 per cent) South-south (28.1 per cent) while only North-west zone reported 'Didn't Know child had to' as the major reason (37.4 per cent). Some of the States that gave 'child too young' as their major reasons were Kebbi (38.3 per cent), FCT (78.6 per cent), Ekiti (51.1 per cent), Lagos (37.8 per cent) and Osun (37.6 per cent).

Breastfeeding

Breastfeeding for the first few year of life protects children from infections, provides an ideal source of nutrients, and is economical and safe. Breast milk is sterile and contains all the nutrients needed by children in first few months of life. In addition, it also provides

some immunity against diseases through the mother's antibodies. In Nigeria, where almost all children (98.9 per cent) were breastfed, the issue of interest should not be the proportion of children that are ever breastfed. Rather, attention should be focused on the intensity of breastfeeding which is measured in terms of exclusive breastfeeding or the duration of breast feeding. Exclusive breastfeeding refers to children who receive only breast milk for 6 months.

Fig 9.3: Percentage of Children Under-Five Who Were Exclusively Breastfed.
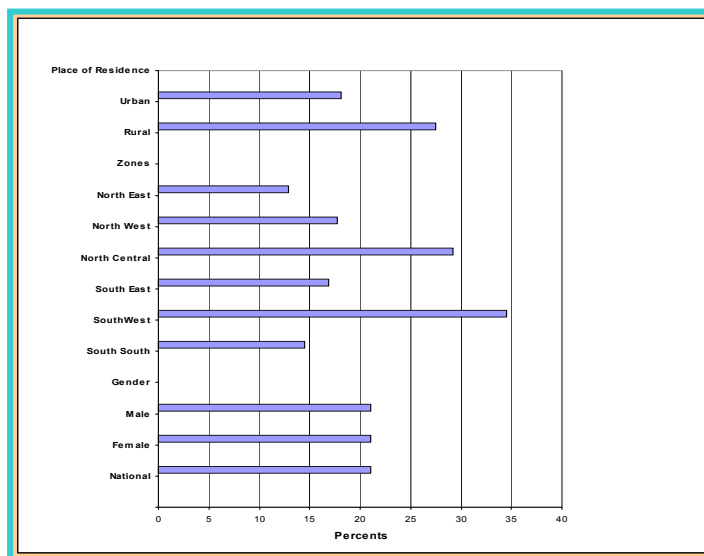
Table 9.8 indicated that exclusive breast feeding rate among children 5-6 months of age was 21.0 per cent, 18.1 per cent for rural areas and 27.5 per cent for urban areas. Considerable zonal disparities exist in exclusive breastfeeding rates, with South-west zone having the highest figure of 34.5 per cent while the figures for the other zones were: 29.2 per cent for the North-central, 17.7 per cent for the North-west, 16.9 per cent for the South-east and 14.5 per cent for the South-south and 12.9 per cent for the North-east. The States that had figures above the national average, were: in the (North-east zone) Yobe State (30.8 per cent), in the North-west, Sokoto (35.5 per cent) and Zamfara State (34.5 per cent) in the North-central, Plateau State(47.2 per cent), Kwara (44.9 per cent), Kogi (38.7 per cent), Nassarawa (33.2 per cent) and FCT (32.2 per cent), South-east, Ebonyi (24.4 per cent), South-west, all the States in the zone and South-south, only Edo State (25.1 per cent). There were slight variations in exclusive breastfeeding rates among gender and children of different age categories.

Disposal of Child Faeces
Proper disposal of children's faeces is important in the prevention of diseases.
More than half (55.2 per cent) of mothers of under-five children had their children's faeces thrown into toilet/latrine, 11.5 per cent had it thrown outside dwelling while 10.5 per cent that it thrown outside yard. The least used method was 'Buried other' (2.4 per cent). About two-thirds (64.8 per cent) of the mothers in the urban areas had their children's faeces thrown into toilet/latrine while the rural areas was 50.0 per cent. The most common method of faeces disposal in all the zones was 'Thrown into toilet/latrine,' which was

highest in the South-east zone (61.1 per cent) and lowest in the North-central zone (32.7 per cent).

Incidence of Diarrhoea

In the CWIQ survey, mothers or caretakers of under-five children were asked whether their child had had diarrhoea in the two weeks prior to the survey. If so, the mother was asked a series of questions about what the child was offered to eat or drink was during the episode. Overall, 4.9 per cent of under-five children had diarrhea in the two weeks preceeding the survey (Table 9.10). Rural children had higher (6.5 per cent) rate than the urban children (4.3 per cent). Diarrhoea prevalence was highest in the South-east zone (5.7 per cent), North-east and North-central recorded 5.5 per cent each, North-west (4.8 per cent) while South-west and South-south had 4.1 per cent each. Among the States Kebbi State recorded the highest (10.3 per cent) prevalence rate, this was followed by Plateau (7.9 per cent) and Niger State (7.0 per cent). Edo and Ekiti States recorded the lowest figures of 1.4 per cent each. Children whose parents belong to private informal sector had the highest (7.9 per cent) prevalence rate followed by unemployed (5.7 per cent) while 'others' had the lowest (3.8 per cent). The result of the survey indicated that males (5.1 per cent) had more prevalence rate than their female counterpart (4.6 per cent). The age pattern of diarrhoea prevalence showed that diarrhea in the two weeks prior to the survey rose from 7.6 per cent among male children aged less than one year and declined to 2.3 per cent among the 4-year old children. For the female children, the prevalence rose from 7.1 per cent from children aged one year old and decline to 2.4 per cent among 4 year old children.

Quantity of Fluid Drunk

More than one-third (34.3 per cent) of under-five children with diarrhea drank more quantity of fluid during the episode while 20.3 per cent drank about the same (Table 9.11). Similar pattern was exhibited at the sectoral, zonal and gender levels.

Quantity of Food Offered

Less than one-third (29.2 per cent) of children were offered quantity of food some what less than usual during the episode of diarrhea, 28.5 per cent received much less while 22.6 per cent received about the same (Table 9.12). Similar pattern was followed in the sectors, North-east, North-west, South-west and South-south zones. Under-five children in the North-central and South-east zones were offered much less (35.1 and 30.4 per cent respectively) than usual while somewhat less was 30.2 per cent and 19.8 per cent respectively. Figures for much less and somewhat less were about the same (28.0 per cent) for male children while somewhat less (30.4 per cent) was higher than much less (28.7 per cent) for females.

ORS/ORT/Home Solution

Table 9.13 also showed the percentage of children offered various types of recommended fluids during the episode of diarrhea. Thirty-eight per cent of children received ORT, 25.3 per cent received Home salt and sugar, 11.9 per cent received ORS while 24.6 per cent received none. ORT was the fluid mostly offered to children during diarrhea episode in all the zones except South-south zone where home salt and sugar had the highest usage.

Mothers who belong to private informal sector had the highest (39.2 per cent) figure for ORT fluid followed by self-other (39.1 per cent) when compared to 7.5 per cent and 13.1

per cent for ORS.   Female children were offered home salt and sugar (28.3 per cent) than their male counterpart (22.8 per cent).

CHAPTER TEN

GENDER

INTRODUCTION:

Gender division of labour and gender differential access to resources affect the development of both gender. The concern of gender analysis is to highlight there differences to assist policies makers and other gender advocates in planning and monitoring progress in gender empowerment and equity. The gender module is designed to collect information on the differential roles of women and men which adds a gender dimension to the analysis of CWIQ survey.

Participation In Income Generating Activities

Members of the household aged 5 years and above were asked about their participation in income generating activities that are usually household's activities. Economic activity undertaken with the expectation that the individual engaging in the activity will receive income of some kind is referred to as income generating activity. Table 10.1 indicated the participation of members of households in income generating activities by gender and age. The result showed that more females (57.9 per cent) engaged in fish smoking activity than males (42.1 per cent). Females in age group 30-34 years participated more (63.5 per cent) while males in age group 60 years and above (53.0 per cent) participated more. Participation in food processing activities showed female leading with about 75 per cent compared with 25 per cent for their male counterpart.

The table also showed that soap making and tailoring activities were dominated by female The male-female participation in fishing activity showed generally that male dominated fishing with 68.8 per cent compared with 31.2 per cent for females. Female also participated in trading activities, with almost two-third (65.8 per cent) participation compared to male figure of 34.2 per cent.

Fig 10.1: Participation in Income generating activities
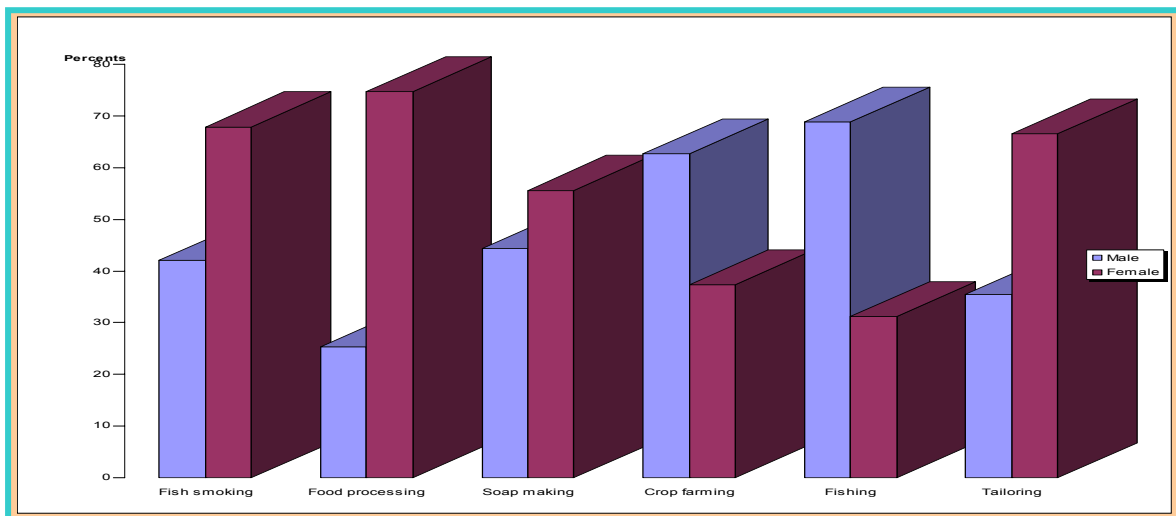
Participation in Housekeeping *Activities*

Participation of household members in housekeeping activities by age and gender revealed that women were leading with high percentages in almost all the household activities, except care of the sick/elderly and fetching firewood that had almost equal percentages (Tables 10.2). Distribution across age groups except age group 5-14 years showed that females of almost all age groups engaged in fetching water. More than half (51.8 per cent) of the female members in household were engaged in fetching firewood while male had 48.2 per cent participation. Female in age group 30-59years engaged themselves in the activity more than their male counterparts. About three-quarter (70.6 per cent) of those engaged in cleaning toilet were females, while males had 29.4 per cent participation. Most of the female household members participated in cooking activities.

The result of the survey also showed that about four-fifth (79.9 per cent) of the females engaged in child care while male had as low as 20.1 per cent.

Participation in Decision Making Process

The survey sought to find out who in the household took decision on household matters such as purchasing, taking children and household members to hospital, clinic, or pharmacy. Who took decisions on matters that affect community, local, state and federal government were also considered. The survey revealed that decision making processes at the household level were taken almost equally by both males (50.5 per cent) and females (49.5 per cent) (tables 10.3). The survey also indicated that men dominated decision making on matters affecting the community, Local, State and Federal Governments. The dominance of males in decision making was highest at the local government level with 89.2 per cent and lowest at the household level with 50.5 per cent.

The table also indicated that 85.2 per cent of the males engaged in decision making on community matters while it was 14.8 per cent for females.

Access to Credit Facilities

Access to any resources is inter related, Lack of access to land for example, reduces the access to credit facilities and other inputs needed for productive activities. More than half of the population interviewed that had access to credit facility were males (54.3 per cent) while the female counterpart were 45.7 per cent. An in-depth study into the type of credit facility further revealed that men were leading in access to all kinds of credit facilities except Esusu that females had more access, (tables 10.4). Almost four-fifths (78.1 per cent) of male population had access to Bank Loan while as low as 21.9 per cent of female had access to Bank loan. Access to micro credit facility was led by men with 72.1 per cent while female had 27.9 per cent. Disaggregating by age groups showed that female in age group 15-29 years had a little above half (51.0 per cent) access to micro credit.

The Table also showed that accessibility to grants followed the same trend of male dorminace within sexes and among all age groups except age 15-29 years. Access to Esusu was dominated by women with about 56.0 per cent. About two-thirds (65.3 per cent) of the male population had access to cooperatives credit facilities, it was 34.7 per cent for females.

Access to Resources

From the survey, Table 10.5 showed that access to facilities and ownership of assets by age and gender was dominated by males. Lack of ownership of most of these assets reduces the access to facilities and other inputs needed for productive activities. The ownership of farmland, houses etc invariably allowed assess to agricultural inputs; agricultural extension services, storage facilities and other facilities since they are inter-related. Access to computer facilities by the survey result gave males a lead of about 60.0 per cent over females 40.0 per cent. About two-thirds (64.1 per cent) of the male population had access to farmland while it was 35.9 per cent for females. About three-quarters (73.3 per cent) of the male population had access to agricultural inputs. The Table also revealed that about 77.0 per cent males and 22.8 per cent females had access to Agricultural extension services. Access to storage facility and Labour, followed the same trend between the two sexes and among age groups. The distribution further revealed that males dominated these facilities with high access rates. The survey showed that access to fixed line phone, GSM and internet facilities were dominated by males.

Ownership of Resources

Ownership of land and houses were dominated by males. About 85.0 per cent of males and 15.8 per cent females owned land. While 85.0 per cent of male and 15.0 per cent of female owned houses. These results could be explained based on traditional right of males among many ethnic groups where ownership of land and houses were traditionally the right of males and females access was mostly based on their relationship to men.

Fig 10.2: Access to facilities and Ownership of assets.
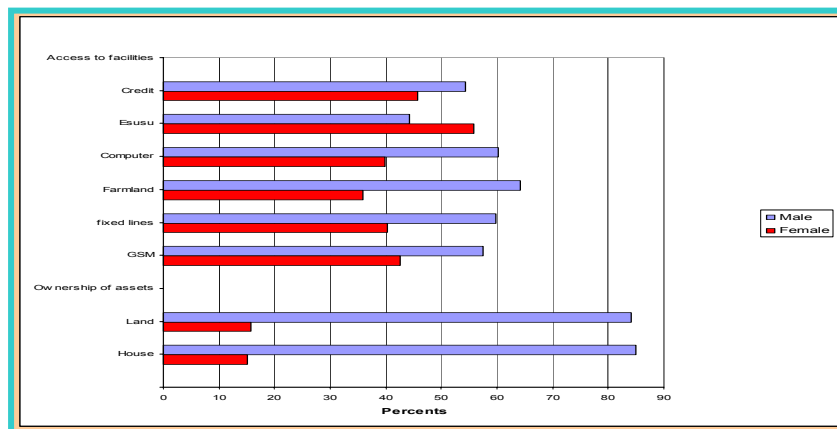
Time Use

The percentage distribution of the population by main activity engaged in showed that about half (48.3 per cent) of the population who engaged in economic activity were male and 31.4 per cent females. The females spent most time in unpaid household work activity with 46.4 per cent, while males spent most time on economic activity. Females spent more time on child care than their male counterpart while the males spent more time than the females on recreational activities.

Fig 10.3: Time use by gender and activity.
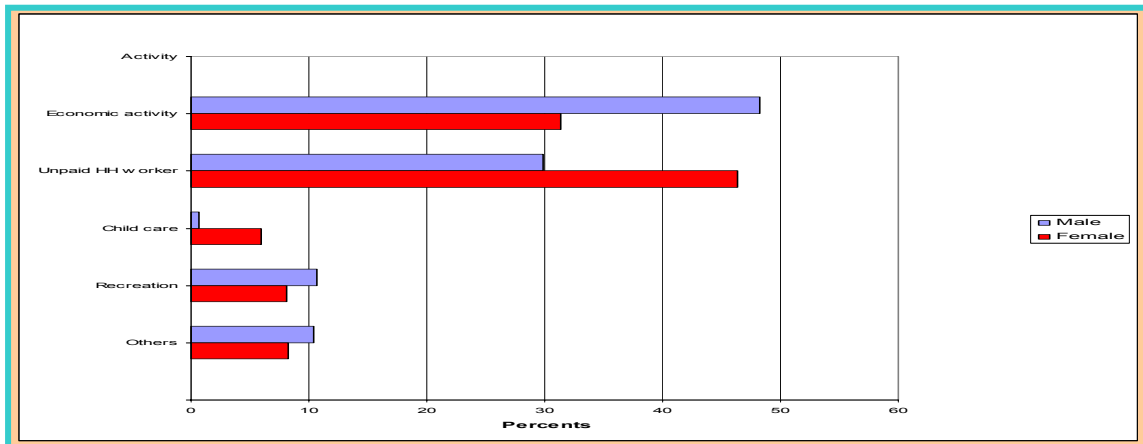
Circumcision

The result of the survey (Table 10.7) revealed that prevalence of female circumcision referred to as Female Genital Mutilation (FGM) was 27.8 per cent National. When compared across the age groups the figure was lowest between the age groups 0-4 years (14.8 per cent) and highest (63.0 per cent) between 65 years and above. This implied that female genital mutilation (FGM) was lower among the newly born female children. Surprisingly, female circumcision was higher in the urban areas (66.2 per cent) than in the rural areas (59.2 per cent)

Fig 10.4: Female Circumcision.
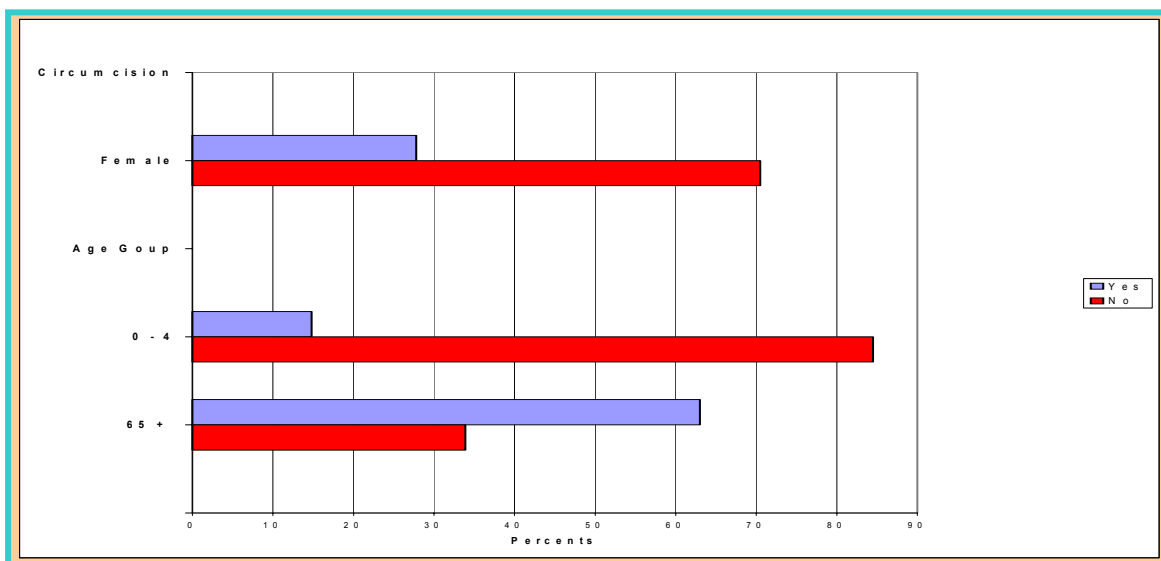
Core Welfare Indicators Definitions

The indicators have been derived from the 2006 Nigeria CWIQ survey and are based on a sample of 75,675 households.

Margin of Error: expresses the error attributed to sampling. It is expressed as an absolute percentage and indicates the range of a 95% confidence interval for the estimate.

Dependency Ratio: is the ratio between the number of household members age 15 to 64 and the number of members age 0-14 and over age 64.

Household Economic Situation Compared To One Year Ago: worse is defined for households that replied much worse now or a little worse now; better is defined for households that replied a little better now or much better now.

Neighborhood Crime/Security Situation Compared To One Year Ago: worse is defined for households that replied much worse now or a little worse now; better is defined for households that replied a little better now or much better now.

Difficulty Meeting Food Needs: is defined for households that reported difficulty meeting food needs often or always.

Difficulty Paying School Fee: is defined for households that reported difficulty paying school fees often or always.

Difficulty Paying House Rent: is defined for households that reported difficulty paying house rent often or always.

Difficulty Paying Utility Bills: is defined for households that reported difficulty paying utility bills often or always.

Difficulty Paying Health Care Costs: is defined for households that reported difficulty paying health care costs often or always.

Households Self Classified As Poor: are households that responded yes to the question do you consider your household to be poor.

Secure Housing Tenure: is defined for households that have documentation to verify their occupancy status.

Access To Water: is defined for households with a water source less than 30 minutes away.

Safe Water Source: is defined for households using treated piped water, bore hole/hand pump or protected well.

Year Round Water Source: is defined for households with no seasonal interruptions to their water supply.

Safe Sanitation: is defined for households using a flush toilet, covered pit latrine or ventilated improved pit latrine.

Improved Waste Disposal: is defined for households that have waste collected or use a government bin.

Non-Wood Used For Cooking: is defined for households that use kerosene, oil, gas or electricity for cooking.

Activity In The Main Job: is the main economic activity at the person's main job.

Unemployed: is defined for youths age 15 to 24 and for all persons 15 and above. It includes persons who did not work in the seven day period preceding the survey and who looked for work in the four week period preceding the survey.

The inactive population, primarily students and retired persons, are not included.

Underemployed: is defined for age 15 and above. It includes employed persons who sought to increase earnings in the seven day period preceding the survey.

Adult Literacy Rates: are defined for persons over age 14.

Youth Literacy Rates: are defined for persons age 15 to 24.

English literacy rates are for persons able to read and write in English. Any language rates are for persons able to read and write in English or any other language.

Primary School:

- Access is defined for children of primary school age (6-11) living in households with a primary school less than 30 minutes away.

- Enrollment (gross) is defined as the number of children of all ages currently in primary school (grades P1 to P6) divided by the number of children of primary school age (6-11).

- Enrollment (net) is defined as the number of children of primary school age (6-11) currently in primary school (grades P1 to P6) divided by the number of children of primary school age (6-11).

- Satisfaction is defined for children of primary school age currently in primary school who cited no problems.

- The primary school completion rate is the ratio between the number of persons who completed primary school in the year before the survey and the number of children of primary school age (6-11).

Secondary school:
- Access is defined for children of secondary school age (12-17) living in households with a secondary school less than 30 minutes away.

- Enrollment (gross) is defined as the number of children of all ages currently in secondary school (grades S1 to S6) divided by the number of children of secondary school age (12-17).

- Enrollment (net) is defined as the number of children of secondary school age (12-17) currently in secondary school (grades S1 to S6) divided by the number of children of secondary school age (12-17).

- Satisfaction is defined for all children currently in secondary school who cited no problems.

- The secondary school completion rate is the ratio between the number of persons who completed secondary school in the year before the survey and the number of children of primary school age (12-17).

Health Access: is defined for persons living in households with a health facility less than 30 minutes away.

Health Need: is defined for persons who were sick or injured in the four week period preceding the survey.

Health Use: is defined for persons who consulted a health practitioner in the four week period preceding the survey. Note that need is not taken into account.

Health Satisfaction: is defined for persons who consulted a health

practitioner in the four week period preceding the survey and who cited no problems.

Consulted Traditional Healer is defined as the percentage of persons consulting a health practitioner in the four week period preceding the survey who consulted a traditional healer.

Pre-Natal Care: is the percentage of women age 12-49 who had a live birth in the 12 months preceding the survey and who received pre-natal care during the pregnancy.

Anti-Malaria Measures: are defined for households that take any measures to prevent malaria.

Physical Or Mental Challenge: is defined for persons with a physical or mental challenge that prevents them from performing normal activities such as employment or schooling.

Orphanhood: is defined for children under age 18.

Fostering: is defined for children under age 18 not living in the same household as their parents.

Exclusive Breastfeeding: is the percentage of children age 6 to 59 months who were exclusively breastfed for 6 months or more.

Delivery By Health Professionals: is defined for children born in the 5 years preceding the survey delivered by a doctor, nurse or midwife.

Measles Immunization: is the percentage of children age 12-59 months who have had a measles vaccination.

Fully Vaccinated is the percentage of children age 12-59 months who have had

the measles, BCG, DPT1-3, OPV0-3, yellow fever, MMR and Vitamin A vaccinations.

Not Vaccinated: is the percentage of children age 12-59 months who have had none of the measles, BCG, DPT1-3, OPV0-3, yellow fever, MMR and Vitamin A immunizations.

Incidence Of Diarrhea: is the percentage of children under 5 who had diarrhea in the two weeks before the survey.

Ors/Ort/Home Solution: is the percentage of children who had diarrhea in the two weeks before the survey who received ORS or ORT or home solution of salt and sugar.

TECHNICAL APPENDIX

Sample Design for National Core Welfare Indicator Questionnaire (CWIQ) Survey (2005)

Preamble:

The sample design employed for National Core Welfare Indicator Questionnaire Survey 2005 is a 2-stage cluster sample design in which Enumeration Areas (EAs) or Primary Sampling Units (PSUs) constitute the 1st stage sample while the Housing Units (HUs) from EAs make up the 2nd stage sample or the ultimate sampling units.

Sampling Frame:

The enumeration Areas (EAs) as demarcated by the National Population Commission (NPopC) for the 1991 population census served as the sampling frame for the National Core Welfare Indicator Questionnaire (CWIQ) survey 2005. Although the frame was however deficient in two main areas, viz;

(i)   No measure of size was readily available for the EAs which served as the primary sampling units (psus) and

(ii)   The EAs were not stratified into urban and rural during the census exercises in 1991.

Nevertheless, the solution provided for the first problem was to take the PSU's with equal probability while the envisaged solution for the second deficient was the promise by the national Population Commission (NPopC) to supply the information at a later date.

Sample Size:

Sample sizes must meet some minimal requirement in order to obtain reliable estimate. Hence, for National CWIQ survey 2005, the sample size varies from state to state depending on the number of Local Government Areas (LGAs) in each state. Ten (10) Enumeration Areas (EAs) were selected in each LGA making a total of 7,740 EAs to be canvassed for throughout the federation from the 774 LGAs including Federal Capital Territory (FCT) Abuja. (See Appendix 1)

Selection Procedure:

The 7,740 EAs were selected directly from the population of EAs in the National Population Commission (NPopC) with equal probability of selection. Prior to selection, all the contiguous EAs were arranged serpentinely in each Local Government Area (LGA) of the state. This arrangement ensured that there was no overlapping between the LGAs and the EAs within the LGAs. With the frame so constructed, the EAs were cumulatively numbered to get the EA population. Therefore, 10 random starts (RS) were taken for each LGA and systematic selection approach were adopted in selection 10 EAs in each LGA.

A listing/updating exercise was carried out in each EA from where 10 housing units (HUs) were selected systematically to form the 2nd stage Sample or Ultimate interviewed using the Core Welfare Indicator questionnaire.

Estimation Procedure:

Estimate will be provided at LGA level.

$$\hat{Y}_l = \frac{N}{n} \sum_{j=1}^{n} \frac{H}{h} \sum_{k=1}^{h} X_{ljk}$$

$$= \frac{N}{n} \frac{H}{h} \sum_{j-1}^{n} \sum_{k=1}^{h} X_{ljk}$$

$$= W_{ljk} \sum_{j=1}^{n} \sum_{k=1}^{h} X_{ljk}$$

Where $\hat{Y}_l$ is the local government estimate

N is the total number of EAs in the lth LGA in the state

n is the number of selected EAs in the lth LGA

H is the total number of Housing Units (HUs) listed from selected j[th] EA in l[th] LGA

h is the number of selected Housing Units (HUs) from j[th] EA in the lth LGA

X_{ljk} is the value of the element of HU in the kth housing unit of jth EA in the 1th LGA.

W_{ljk} is the weight

National Estimate:

$$\hat{Y}_N = \sum_{s=1}^{37} \hat{Y}_s$$

Where $\hat{Y}_N$ is the National Estimate and $\hat{Y}_s$ is the State Estimate.

Variance Estimate:

Jackknife method which is the CWIQ software for Error Estimate was used. This required forming replicate from t he full sample by randomly eliminating one sample cluster [enumeration area (EA)] at a time from a state which is the reporting domain. Then a pseudo-estimate is formed from the retained EAs, which are re-weighted to adjust for the eliminated units. Thus, for a particular state containing k EAs, k replicated estimates are formed by eliminating one of these, at a time, and increasing the weight of the remaining (k-1) EAs by a factor of k/(k-1). This process is repeated for each EA.

For a given state or reporting domain, the estimate of the variance of a rate, r, is given by

$Var(r) = (Se)^2 = \frac{1}{k(k-1)} \sum_{i-1}^{k} (r_i - r)^2$ where (Se) is the standard error, k is the number of EAs in

the state or reporting domain.

r is the weighted estimate calculated from the entire sample of EAs in the state or reporting domain.

$r_{(i)}$ is equal to kr-(k-1)r$_{(i)}$, where $r_{(i)}$ is the re-weighted estimate calculated from the reduced sample of k-1 EAs.

To obtain an estimate of the variance at a higher level, say, at the national level, the process is repeated over all states, with k redefined to refer to the total number of EAs (as opposed to the number in the state).