AN APPRAISAL OF THE IMPACT OF THE ACTIVITIEs OF THE KANO STATE AGRICULTURAL AND RURAL DEVELOPMENT AUTHORITY IKNARDA) IN BIRNIN KUDU LOCAL GOVERNMENT AREA (BKLG) KANO STATE.

BY

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Thesis Submitted in Partial Fulfilment of the Requirements for a Master's Degree in the Department of Urban and Regional Planning, Ahmadu Bello University, Zaria, NIGERIA,

NOVEMBER, 1988.

DECLARATION

I hereby declare that this thesis has been composed by myself as a pioneer research work in BKLG. It has not been accepted in any previous application for a higher degree. All sources of information are specifically acknowledged by reference.

November, 1988. Mohammed Balarabe Hassan

CERTIFICATION

This thesis entitled An Appraisal of the Impact of the Activities of the Kano State Agricultural and Rural Development Authority by Mohammed Balarabe HASSAN meets the regulations governing the award of the Degree of Master of Science, Urban and Regional Planning, of Ahmadu Bello University, and is approved for its contribution to knowledge and literary presentation.

Chairman, Supervisory Committee — Date: 14th March 1989

Member, Supervisory Committee — Date: 14th March, 1989.

Head of Department — Date: 14th March, 1989.

Dean, Postgraduate School — Date: 13-8-89

DEDICATION

To My Parents

and

Teachers at All Levels

For

Training Me.

ACKNOWLEDGEMENT

I would like to express my deep gratitude to the following individuals and organisations:

The head and academic staff of Urban and Regional Planning Department, with special regards to my Supervisors Alhaji I.D. Suleiman and Mr. D.J. Abin for reading, commenting and making useful suggestions on the work.

My friends and colleagues within and outside the University Community for their encouragement during hard times.

My wife (Saude) and children (Bashir and Bello) for their patience during my absence.

My typist Mr. M. Obayemi who made it possible to meet the deadline. Kano State Government and the Urban Development Board for their financial support.

The management and staff of KNARDA with special regards to M. Mohammed Hurdi and M. Kabir Nasidi of monitoring and evaluation unit, M. Yunusa I. Gudaji and M. Isyaku Abdullahi of Birnin Kudu Zonal Management Unit.

The management and staff of Birnin Kudu Local Government Council, Rural Electricity Board, Water Resources Engineering and construction Agency, Ministry of Agriculture and Rural

Development, Directorate for Food Roads and Rural Infrastructure (Kano HQ), Ministry of Commerce, Industry and Cooperatives and the Statistics Department, Ministry of Economic Planning Kano for making useful information and relevant data available to me.

I wish to thank you all very much for the inspiration given to me.

ABSTRACT

This study is aimed at evaluating the impact of the activities of KNARDA in BKLG and to recommend apprpriate strategies with a view to improving the performance.

Objectives include: (1) To review strategies, programmes and achievements on rural development in Nigeria with particular reference to Kano State. (2) To examine the physical conditions, social and economic characteristics of BKLG. (3) To examine the activities of KNARDA in BKLG. (4) To evaluate the physical and socio-economic impact of the KNARDA's programmes in BKLG. (5) To identify the problems of KNARDA in achieving its set objectives. (6) To suggest appropriate rural development strategies for BKLG. (7) To suggest some criteria, development proposals and guidelines for implementation.

Sources of data include: field observations on completed projects, conduction of informal interviews, administration of formal questionnaires, literature reviews, statistical records from KNARDA and other agencies, maps, and other documents.

Results have shown that (1) out of the reviewed rural development strategies only a selected few are relevant to BKLG and none of them can achieve the development of the area in isolation from the others . (2) In the conception and implementation of KNARDA's programmes, emphasis was on the development of agriculture, thus rural development was considered synonymous with agricultural development; and hence the economic, social and physical impact of KNARDA through its activities are inadequate to justify its existence. (3) The existing employment opportunities, the distribution of social amenities and infrastructural facilities are inadequate. (4) Development efforts by formal and informal organisations are carried out on ad-hoc basis. (5) There are vast human and material resources that can be easily mobilised and utilised for the development of the area. (6) Four hierarchies of settlements were identified in BKLG. (7) Although KNARDA is doing what it is supposed to do in accordance with its set objectives, however it fails to cover all aspects of rural development.

Proposals made include: (1) Road hierarchy and network. (2) Location and distribution of social amenities. (3) Water resources development for domestic and irrigation purposes. (4) Cottage, agroprocessing and other small scale industrial development. (5) Development of cultural recreation and tourism. (6) Development of various hierarchies of settlements to serve their functions efficiently. Proposals are phased into two stages each of five years in line with the National Development Plan periods.

Recommendations have also been made on institutional framework and sources of finance. If these proposals are successfully implemented, it is hoped that a more integrated and well coordinated rural development will be achieved in BKLG the study area.

NOVEMBER, 1988
ABU, Zaria.

Mohammed Balarabe Hassan

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CHAPTER ONE

1.0.0. INTRODUCTION

Although Nigeria is approaching the fourth decade of political independence, the standard of living of the rural population has not changed significantly from what it was during the colonial period. This is unfair considering the contribution made by the rural sector to the growth of the national economy before the discovery of oil in the 1950s. Individuals, organisations and governments at various levels have at one time or another expressed their concern over Nigeria's rural stagnation and under development.

The major constraints of rural progress in Nigeria include: poverty, unemployment, inequality in income and in the location and distribution of physical and social infrastructural facilities much of which according to Teriba (1977) are as a result of "haphazard, ad-hoc and uncoordinated approach to rural development"[1] adopted by the

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1. Teriba and Kayode, "The concept of Planning Regions" in Mabogunje and Faniran (ed) Regional Planning and Development in Tropical Africa, 1977.

governments. It was also observed by Adeyemo (1986) that "the undisputable rural poverty and sharp income differences between the urban and rural areas have generated alot of debate as to what should be the proper balance between the two sectors of the economy in the so-called integrated rural development"[2] (IRD) which was implemented in many states as a corrective measure to the mistakes of the past strategies for rural development.

Among the objectives of such IRD projects is the improvement upon the productivity of the farmers, and raising their incomes. They also undertake the provision of extension services, supply of farm inputs, provision of credit facilities and marketing services, water resource development and the construction of rural feeder roads. Other packages include setting up of model villages, improvement on rural housing and in a few cases the encouragement of agro-based industries. All these were implented to achieve intended results in rural development.

A typical example of the IRD is the KNARDA project in Kano State. It originated from the performance of the first three pilot agricultural

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2. Adeyemo O.A., Urban-Rural Planning as National Development Strategy, NITP Annual Conference Paper, Lagos 1986.

development projects (ADPs) in Funtua, Gusau and Gombe of Katsina, Sokoto and Bauchi States respectively. KNARDA project is funded with a World Bank loan with contributions from Kano State and the Federal governments.

With six years gone since the inception of the project, it is felt that it is hightime to assess its social, economic and spatial impact on the project areas. Birnin Kudu local government area (BKLG) was chosen for this study.

1.1.0. Statement of Problem And Justification Of Research:

Rural areas in Nigeria where 80 per cent of the Nigerians live are characterised by isolated and remote settlements. For a longtime rural development efforts in this country have failed to incorporate aspects of physical planning. The activities of physical planning have been geared more towards the urban areas.

The existing spatial inequality manifests itself not only in the uneven distribution of utilities, services and facilities (Ufs) between the urban and the rural areas, but also in the concentration of administrative, commercial, economic and industrial activities in a few urban centres. This encouraged the massive rural to

urban migrations through which the active labour force is drained into the cities; thus lowering the level of productivity of the rural sector. The situation is made worse by the vicious cycle of poverty, illeteracy and disease that are more prevalent in the rural areas. The cities on the other hand are faced with problems of overcrowding, misuse and overuse of urban social amenities, unemployment and underemployment etc. which may give way for anti-social behaviour.

It is in view of this that the rural sub-region constitutes a planning problem requiring the attention of planners. Raising the level of development and quality of life in the rural sub-region can be enhanced through spatial planning and reorganisation. It is however noted that earlier approaches to tackle the problem of rural underdevelopment were based on isolated rural development projects. Those include farm settlement schemes, irrigation schemes, riverbasin development, operation feed the nation, Green revolution, back to the land programme and the world bank sponsored agricultural and rural development projects in many states of the Federation. however two basic problems were noted with such projects and programmes. In the first place they mainly cover certain limited areas. And

secondly they focus attention essentially on agriculture thereby interpreting rural development in terms of farming. Later in an attempt to bring improvement, the directorate for food, roads and rural infrastructure (DFRRI) was established to ensure a wider coverage of issues related to rural development.

Generally judging from the isolated nature of the projects and programmes, the adjustments within the rural sector and between the rural sector and other sectors of the economy may not be making the required change in the right direction. One other major weakness with all these projects is the absence of any particular planning framework. No efforts are made to arrest the situation through the integration of fiscal, sectoral and spatial planning.

It is in the recognition of the need to bring about rapid rural development, increasing rural incomes and hence reducing rural to urban migration that the Kano State government embarked upon the KNARDA project the appraisal of which is the corner stone of this study.

1.2.0. Aim:

To appraise the impact of the activities of KNARDA in BKLG and to recommend appropriate strategies with a view to improving the performance.

1.3.0. Objectives:

The above is to be achieved through the following objectives.

1. To review strategies, programmes and achievements on rural development in Nigeria with particular reference to Kano State.
2. To examine the physical conditions, social and economic characteristics of Birnin Kudu local government area.
3. To examine the activities of KNARDA in Birnin Kudu Local Government.
4. To evaluate the physical and socio-economic impact of the KNARDA programmes in Birnin Kudu Local Government area.
5. To identiiy the problems of KNARDA in achieving its set objectives.
6. To suggest appropriate rural development strategies for Birnin Kudu Local Government area.
7. To outline some criteria, development proposals and guidelines for implementation.

1.4.0. Scope and Limitation:

This study will be confined mainly to the activities of KNARDA in Kano State with particular

reference to Birnin Kudu Local Government area. However since KNARDA is not the only agency involved in rural development, the level of coordination and cooperation between itself and other agencies will be examined. In view of time and financial constraints this study will be limited only to the administrative boundary of the local government area. Furthermore some selected settlements will be studied carefully in order to ensure a comprehensive study.

1.5.0. Methodology:

This involved the collection of primary and secondary data.

1.5.1. Primary Data: Sources include:-

1. Field observations on completed projects.
2. The conduction of informal interviews.
3. The administration of formal questionnaires.

1.5.2. Secondary Data: Sources include

1. Literature Review.
2. Statistical records obtained from KNARDA and other agencies.
3. Maps and other documents.

Data was collected from 24 sampled settlements within the study area. Three different questionnaires were designed. One was for officials of the KNARDA project, it covers aspects related to the activities, acheivements, problems and potentials of the Project. Another questionnaire was designed and addressed to the officials of other ministries, parastatals and organisations involved in issues related to rural development. These include ministry of agriculture and rural development (MARD), ministry of Commerce, Industry and Cooperatives (MCIC). Water resources engineering and Construction agency (WRECA), Rural Electricity Board (REB), DFRRI and Birnin Kudu local government Council (BKLGC). The aim was to assess the level of coordination and cooperation between the various agencies concerned. The third questionnaire was designed to obtain information from the people within the project area. It was meant to provide an insight into the population characteristics and to assess the physical, social and economic impact of the KNARDA programmes on the people.

1.5.3. Sampling Technique:

The survey addressed the household as the unit of investigation. For convenience and equal

representation every 10th household head was interviewed in the smaller settlements. However in the larger settlements like Fagam, Gwaram and Birnin Kudu, every 20th household head was interviewed. Total number of questionnaires administered ranged from 20 to 50 depending upon the size of individual settlements.

All together 600 out of 51,628 household heads were interviewed. The sample size was 2.6 percent of household heads in the surveyed settlements which was 1.16 per cent of the entire population of the whole sub-region. The administration of formal questionnaires was conducted between December 1987 and March 1988.

1.6.0. Thesis Structure:

The thesis is divided into four parts as follows:-

1.6.1. Part One: consists of general introduction and literature review.

1.6.2. Part Two: a survey and analysis of the existing physical conditions, social and economic characteristics of the study area including geographical background, settlement patterns and hierarchies, physical and social infrastructural facilities, population characteristics and socio-

economic background. Also included in this part is an assessment of the physical, social and economic impact of the activities of the KNARDA project on the people.

1.6.3. Part three deals with physical planning measures as proposals. Also involved in this part include the establishment of some criteria and planning requirements based on which proposals were made. These include proposed settlement pattern and hierarchy, proposed road hierarchy, proposed industrial establishments, proposed distribution of utilities, services and facilities. Others are proposals for the integration of rural development efforts to ensure the effective mobilisation and utilisation of available human and material resources for the development of BKLG. Also in this section there is the aspect of implementation to include institutional framework, phasing and sources of finance for executing rural development programmes (fig. 1.1).

1.6.4. Part Four: mainly summary, conclusion, bibliography and appendices.

1.7.0. Definition of Some Terms:

In the context of this research, the following terms are explained further.

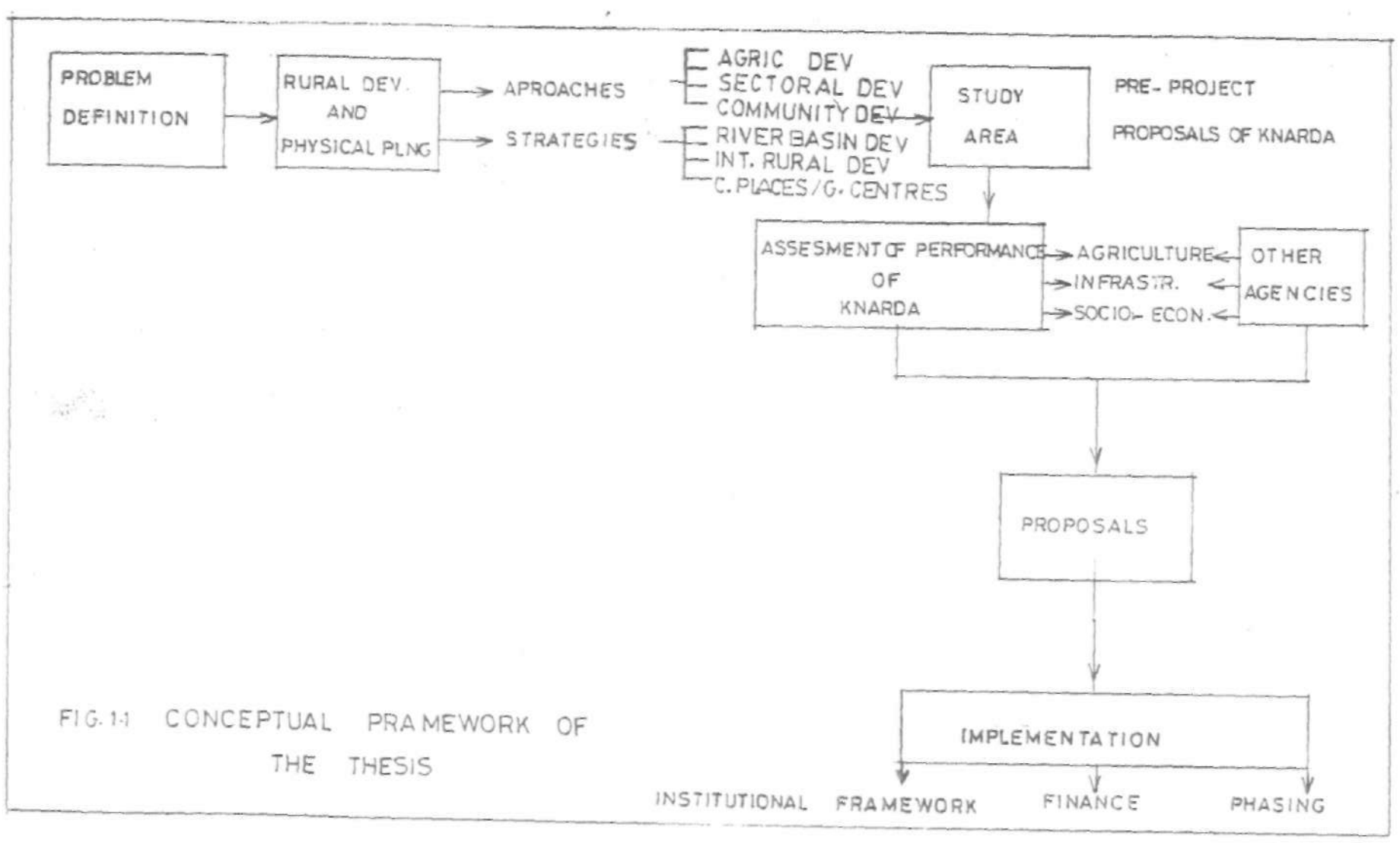


FIG. 1-1 CONCEPTUAL FRAMEWORK OF THE THESIS

HASSAN M. B.
M Sc. URP 1986/88

1.7.1. Rural:

The 'term' rural has been associated with the Open Countryside with a population of 20,000 or less as defined by the official Nigerian Census Board"[3] (Akinbode 1986).

1.7.2. Rural Development:

"It involves a broad spectrum of issues among which are problems of agricultural modernization, rural industrialization, job creation, trnasport development and provision of adequate housing and shelter for rural inhabitants. Others include education, health, recreational services and transformation of the rural Millieu in order to enhance the quality of rural life."[4] (Akinbode 1986). It should involve all facets of human development in the rural areas.

1.7.3. Integrated Rural Development:

"This is a strategy where in various sectors of development are considered together including

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3. Akinbode A., Research Resources For Rural Development in the Journal of the NITP Vols VI and VII, 1986.

4. Akinbode (Ibid).

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the Spatial dimension. It involves provision of selected elements of development from various sectors at a particular time"[5] Singh and Kaltho (1986). The aspect of spatial dimension relates to creating a functional rural-urban continium in the broader framework of rural development.

1.7.4. Development package:

This is a periodic programme in which various required inputs of development are combined together to form a composite unit for action in a specific territorial space.

1.8.0. List of Abbreviations:

1.	ADP	=	Agricultural Development Project
2.	AEO	=	Agricultural Extension Officer
3.	AES	=	Agricultural Extension Service
4.	BKLG	=	Birnin Kudu Local Government Area
5.	BKLGC	=	Birnin Kudu Local Government Council
6.	CSER	=	Centre for Social and Economic Research
7.	DFRRI	=	Directorate for Food, Roads and Rural Infrastructure.
8.	FADP	=	Funtua Agricultural Development Project
9.	HH	=	Household.
10.	HHH	=	Householdhead

5. Singh H.B. and Kaltho J.B., The Viable Approach to Integrated Rural Development: A Package Programme, NITP Annual Conference Paper, Lagos, 1986.

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5. Singh H.B. and Kaltho J.B., The Viable Approach to Integrated Rural Development: A Package Programme, NITP Annual Conference Paper, Lagos, 1986.

11.	IRD	=	Integrated Rural Development
12.	KASCO	=	Kano State Agricultural Supply Company
13.	KNARDA	=	Kano State Agricultural and Rural Development Authority
14.	KNARDEC	=	Kano State Agricultural and Rural Development Executive Committee.
15.	MARD	=	Ministry of Agriculture and Rural Development
16.	MCIC	=	Ministry for Commerce, Industry and Cooperatives.
17.	MTR	=	Project Midterm Review.
18.	NISER	=	National Institute for Social and Economic Research
19.	REB	=	Rural Electricity Board
20.	RWS	=	Rural Water Supply
21.	PMU	=	Programme Management Unit
22.	URP	=	Urban and Regional Planning
23.	UFS	=	Utilities, Services and Facilities.
24.	WRECA	=	Water Resources and Engineering Construction Agency.
25.	ZMU	=	Zonal Management Unit.

CHAPTER TWO

2.0.0. LITERATURE REVIEW

2.1.0. Review of Strategies, Programmes And Achievements on Rural Development In Nigeria with Particular Reference To Kano State.

This Chapter reviews Nigeria's rural development trends over time. It also deals with impact assessment case studies of certain appraised integrated rural development projects (ADPS). Other alternative rural development strategies (e.g. Physical Planning Strategies) have also been examined to complement the existing ones in order to achieve a meaningful impact on the rural areas. Historically from the colonial period up to the year 1973 rural development was considered synonymous with agricultural development. This resulted in the establishment of settlement schemes and the school leavers' farm settlement schemes etc. Then from 1974 to 1982 there was improvement in the conception of rural development through the introduction of RBDAs and the 'target area ADPs' in localities. (e.g. Funtua and Gombe).

As from 1982 onwards there was further awareness on rural requirements through the

establishment of state wide IRDPS or ADPS in many states of Nigeria. From the year 1986 up to the present time there is full awareness with the creation of the DFRRI to integrate rural development efforts. Other programmes that were executed over the years include the operation feed the nation (OFN), the Green Revolution (GR) and 'back-to-the-land' etc. The acheivements and problems of the above mentioned are discussed as follows:

2.1.1. Rural Development In The Colonial Development Plan:

After the Second World War (1945), a ten year plan of development was drawn by the colonial administration. During this plan period, efforts were made to encourage settlement schemes which had as their objectives the development of resources in un-used frontier areas, the introduction of new farming techniques and the redistribution of population. The then relatively empty areas of the middle belt received attention in terms of encouraging settlement schemes. Among the first set of such projects was the Bamenda-cross River Calabar scheme which took off in 1947. There was also the Niger Agricultural Scheme at Mokwa also in the Middle belt. The objectives of the scheme were twofold. To increase agricultural

production through the settlement of peasant farmers on hitherto virtually empty land.

By 1950, however "it had become clear that the settlers could not attune themselves to the new system".[1] Egunjobi (1986). Moreover, the settlement aspect of the scheme did not function effectively. They failed to involve a large proportion of the rural population and also the demonstration effect which they were expected to have on the people within the project areas did not materialise. The result was persistent rural under development and consequently the continued unattractiveness of the rural areas for young school leavers. By the time the scheme was finally abandoned in 1955 very little success was achieved.

2.1.2. Rural Development in The First National Development Plan (1962-68).

Following the attainment of political independence the regions adopted a different strategy with a view to checking the growing rural-urban drift by school-leavers. The farm settlement scheme was introduced. Emphasis was on the expansion and modernization of agriculture and

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1. Egunjobi L. Intergovernmental Relationship and Organisational Structure for Implementing Rural Development in Nigeria. Paper presented at NITP Annual Conference, Lagos 1986.

related production without necessarily emphasizing the need to improve the rural areas and physical environments of the people engaged in agriculture. Shortly after the conception of the farm settlement schemes it was discovered that they were not going to acheive the desired result for which they were established.

2.1.3. Rural Development in the Second National Development Plan (1970-74).

A major objective of the Second National Development Plan was to create employment opportunities to absorb additional population and minimise the tendency for under-employment of the human resources in rural areas. The plan, however, did not consider it economically feasible to embark on the extension of telephone services to the rural areas.

The first two plans largely neglected development in spatial terms. This was because emphasis was on the Gross National Product (GNP) and other related issues. They emphasised sectoral planning at the expense of physical and environmental planning. This fact accounted for the great disparities between the rural and the urban sectors. According to Adeniyi (1978) "Kano and Port Harcourt,

the capital of their respective states contained all industrial establishment surveyed in the states".[2] This attracted the rural-urban immigrants to seek jobs in the cities which further depressed the rural economy. This, with Government's increasing realization of the accumulating bills from food importation, prompted the launching of the operation feed the Nation (OFN) programme in 1976. This was more of encouraging backyard gardens than any serious large scale production. It involved a mass mobilisation which although impressive especially to the civil servants and the media, did not achieve much. The campaign failed and at the end majority of the farmers knew nothing about it.

Based on the experience of the Second National Development Plan, the third National Development Plan represented a sharp departure from the two previous plans. This plan (1975-1980) "designated each state as a regional planning unit and each local government area (LGA) as micro-regional planning unit."[3] The need was realised

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2. Adeniyi, E.O. "Regional Planning" in Oguntoyinbo J.S. et al (ed) Geography of Nigerian Development.

3. Federal Republic of Nigeria, Third National Development Plan 1975-80.

to integrate planning efforts as well in this Third National Development Plan.

2.1.4. Rural Development in the Third National Development Plan (1975-80).

The Plan was set to check rural-urban disparity by promoting development in the rural areas. Emphasis was given to strategies and programmes of direct benefit to the rural population. Such programmes of direct benefit to rural population. Such projects were to include the improvement of the economic and social infrastructure in the rural areas. Rural development objectives in the plan were; to increase rural productivity, diversify rural economy and enhance the quality of life through the provision of basic social amenities in the rural areas. To achieve these goals the following were established:

2.1.4.1. River Basin Development Authorities (RBDAS):

It was during this plan period that RBDAs were established. In 1976, a decree establishing 11 RBDA's was promulgated. The authorities established were as follows:-

Table 2.1.

River Basin Development Authorities in Nigeria.

S/NO	RIVER BASIN	STATES REPRESENTED
1.	Anambra-Imo	Anambra, Imo and Benue
2.	Benin-Owena	Ondo and Bendel
3.	Chad	Borno
4.	Cross River	Cross River, Anambra and Imo
5.	Hadejia-Jama'are	Kano and Bauchi
6.	Lower Benue	Gongola, Benue and Plateau
7.	Niger	Kwara, Niger, Kaduna and Plateau
8.	Niger Delta	Bendel, Rivers and Imo
9.	Ogun-Oshun	Oyo, Ogun and Lagos.
10.	Sokoto-Rima	Sokoto and Katsina
11.	Upper Benue	Gongola and Bauchi.

Source: After Onokheraye and Omuta (1986).

The RBDAs in their respective areas were empowered to acquire land or take over projects or lease land with the agreement of state governments concerned and to exercise the following functions:

(a) Undertake comprehensive development of ground water resources for multi-purpose use.

(b) Undertake watershed management schemes of flood and erosion control.

(c) Construct and maintain dams, dykes, wells or boreholes, irrigation and drainage systems.

(d) Develop irrigation schemes for the production of crops and livestock.

(e) Provide water from reserviors, wells and boreholes for urban and rural water supply.

(f) Control pollution in rivers and lakes in their areas of jurisdiction

(g) Resettle persons affected by the works and schemes named above.

Through the functions of the RBDAs, they are disigned to ensure comprehensive development of areas under their control and to spread to other areas; however the RBDA strategy has been seriously criticised for the following reasons:.

(a) The non-involvement of the local governments in the execution of its programmes.

(b) The failure to adequately integrate the average farmer.

(c) Its tendency to be high capital and high technology oriented beyond the comprehension of the ordinary Nigerian farmer.

Wallace (1978) has discussed this issue in relation to such RBDA projects. She made a strong observation about the unequal access which

people have to vital means of production such as land and capital in the Kano river project areas "The official policy of land re-allocation conceals a number of other unofficial processes which are inhibitive to the process of equity"[4] (Wallace (op.cit). For instance by its high labour demand irrigation now requires access to increasing non-family labour. With no capital to engage such labour less fortunate farmers give off large portions of their land on lease to others. The situation is made worse through processes of corruption arising from the official bureaucracies in resource decisions. Thus according to Wallace (op.cit) "a common complain among a class of farmers in Kura district was their inability to hire tractors for their farm because such tractors were busy on the estate farms of more influential citizens".[5]

The common assumption is that irrigation through the activities of the RBDAs opens the way for wealth, and unless strict legislative and

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4. Wallace T., Rural Development through Irrigation Studies in Kura District on Kano River Project, CSER, ABU, 1978.

5. Ibid.

constitutional controls are established the ultimate outcome will be wealth in the hands of few which is contrary to the goals of the RBDAs.

2.1.4.2. The Green Revolution (GR).

It was in the midst of the costly activities of the river basin development programmes that the FGN of the Second Republic (1979-83) revitalised the OFN programme under the guise of a new name "the Green Revolution" (GR). The Nation was faced with the nuisance of food importation in the face of a deplated foreign reserve. State governments were directed to exploit their potentials to improve agriculture, while corporate bodies were urged to make direct investments in agricultural projects. The importation of certain food items were banned as an expression of the government's commitment to source its food locally. "The GR will be remembered for the colossal sum of money that went into the importation of fertilizer and the corruption in the management of fund that was closely associated with the transactions"[6] Egunjobi (1986).

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6. Ibid.

2.1.4.3. Back-To-Land:

Another policy that deserves mention was the back-to-land scheme. It was launched by the FGN and the first state to adopt was Rivers in 1984. It was implemented by providing land and small, short-term loans to school leavers who wanted to take farming as a carrier. Later on other states including Lagos and Oyo adopted the strategy. The main aim was to make school leavers full time self employed farmers. The scheme later resurfaced after its decline in the newly introduced directorate for labour and employment.

2.1.5. Rural Development In The Fourth National Development Plan (1981-85).

The plan marked a turning point in rural development efforts contrary to what was obtained in the previous years. It distinctively recognised the rural sector as a priority area. The government aimed at integrated rural development (IRD). There was provision of integrated package such as infrastructure, institutional and administrative apparatus to facilitate rapid development of the country's agricultural potential. In this plan, agriculture and rural development have been conspicously linked together. Specific allocation to agriculture and the rural areas rose from five

percent to 11 percent in the first plan and fourth plan respectively (see table 2.2.) Two of such IRD strategies are the agricultural development projects (ADPs) and the DFRRI and its activities.

Table 2.2.

Percentage of Development Plan Resource Allocations to Agriculture/Rural Development.

Development Period	Total allocation (N billions)	Allocation to Agric/ Rural areas (N billions)	% of allocation to Agric/ Rural Areas	% allocation to other Sectors
First NDP	2.20	0.11	5.00	95.00
Second NDP	3.20	0.22	6.90	93.10
Third NDP	53.30	2.10	3.94	96.06
Fourth NDP	32.00	9.23	11.86	88.14

Source: After Adeyemo (1986).

2.1.5.1. Agricultural And Rural Development Projects (ADPs) or (IRD Projects).

The failure of past policies which favoured the establishment of large scale government owned farms in the country forced the government in the early 1970s to reconsider that strategy and start emphasizing the importance of small scale

farming. At the heart of this new strategy was the need to create new technology, supported by infrastructural and institutional development. The ADPs were at the heart of this strategy which emphasized increased use of fertilizers, improved seeds, protection chemicals, extension advice and credit.

The strategy has been articulated by setting up an administrative agricultural and rural development apparatus to cover large areas of the country. To support the agricultural production drive in the project areas a network of farm service centres, feeder roads, and small earth dams have been constructed. These projects which are financed with public funds and World Bank loans are eventually to be extended to cover all areas of each state of the Federation (it is already so in many states). Assessment on the ADPs will be carried out in section 2.3.0. dealing with impact case studies. The next section is a focus on the DFRRI and its activities.

2.1.5.2. Directorate For Food Roads and Rural Infrastructure (DFRRI).

The present military Government is articulating its rural development strategy through the DFRRI.

The DFRRI was inaugurated and its programmes were unfolded in 1986. The objectives of the Directorate are as follows:

(a) Improving the quality of life and living standards of the ruralites by substantially improving the quality value, and nutritional balance of their food intake.

(b) Raising the quality of rural housing and working environment of the rural population.

(c) Improving the health conditions of rural dwellers.

(d) Ensuring that rural dwellers produce their goods and services themselves as well as for exchange.

(e) Using the vast resources of the rural areas to lay a solid foundation for the security, socio-cultural, political and economic growth and development of the Nation.

DFRRI has allocated funds to state governments for the construction of rural feeder roads and other rural infrastructure. In addition to this, it is exploring ways of mobilising the country's rural population for effective rural development. In this regard it is searching for an appropriate local organisational structure which will enable it to successfully carry development to the grass-roots.

Although it is rather too early to assess the effectiveness of the activities of the DFRRI, however,

some measure of achievement has been observed. This is more so in terms of rural feeder roads newly constructed all over the country. This is a credit to DFRRI by bringing development to the rural areas. But almost all the feeder roads can hardly stand the test of time if they remained untarred.

2.1.6. Assessment of Rural Development At The National Level:

Quite a number of the rural development strategies and programmes initiated by the Federal government did not meet the objective for which they were established. Some of these programmes including the farm settlement and school leavers' farm schemes failed because of inadequate funding, lack of amenities and basic infrastructure, poor spread and narrow conception of rural development.

The OFN and the GR on the other hand were used for mere political propaganda without any direct benefit to the rural dwellers. The GR in particular will be remembered for the colossal sum of money that went into the importation of fertilizer and the corruption in the management of funds associated with the transactions. It also marked a period of large scale food importation and hence the proliferation of rice merchants.

Recently (1987), however, one of such dead programmes i.e. back-to-land; was revitalised through the activities of the National Directorate for Employment the success of which is too early to be assessed.

As for the existing rural development strategies and programmes, they are in line with the activities of ministries, the RBDAs, the IRDPs or ADPs and the DFRRI. The RBDAs have failed to acheive their set objectives. The high capital and technology orientation of the RBDAs was beyond the capability and comprehension of the ordinary farmers, therefore, only few benefitted from their activities. The IRDPs or ADPs were established to achieve agricultural development and rural development simultaneously. However, they only succeeded in raising agricultural productivity and rural incomes, thus improving rural living standards in their areas of implementation. As for rural development in general it is yet to be achieved due to the narrow conception of the issue by the subsequent IRDPs. This is one out of the many problems militating against the full realisation of the goals behind the establishment of the IRDPs. The remaining problems include finance, lack of personnel, equipment and coordination

with other rural development agencies etc. There is no institutional arrangement for rural activities.

Projects are carried out on ad-hoc basis as discrete entities, the way one project relates to others in the same locality is rarely considered. The situation is made worse with the coming of the DFRRI. Subsequently conflicts and duplication of efforts between ministries related with rural development, parastatals and local government councils were inevitable. Whereas, the DFRRI was said to be funded lavishly, other projects e.g. the IRDPs (ADPs) were starved of funds. As if that was not enough, the DFRRI was accused on many occasions of labelling existing rural feeder roads constructed by the ADPs with its signboards, thus making cheap popularity out of the achievement of the ADPs.

It is clear that none of the various programmes and strategies reviewed can provide the type of development envisaged. Development plans are mainly concerned with sectoral allocation of scarce resources especially finance. The spatial base for rural development is not usually established. Consequently they fail to have meaningful impact on the rural areas.

At the state level, most governments have ministries and parastatals on the one hand and the local government councils on the other to take care of the problems in the rural areas. In Kano state for instance there are the ministry of agriculture and Rural development (MARD) and that of Social Welfare and Community Development (MSCD). Activities of such ministries include rural water supply, rural electricity supply and rural feeder roads. Government parastatals include REB, WRECA, and KNARDA etc. as can be seen in the following section.

2.2.0. Review of Rural Development Efforts in Kano State:

At the inception of the state in 1967 responsibilities for rural and community development projects were shared between the ministries of education and community development and the ministry of works and survey. Other ministries that were also involved in the execution of outlined rural development programmes include the ministries of health, and that of agriculture and natural resources. There are other ad-hoc duties that were also carried out by agencies that were directly or indirectly under the ministries. It was however noted that the provision of

infradtructural facilities by WRECA and REB were largely biased against the rural areas. The responsibility for community development was later shifted to the ministry of local government.

The impact of this initial effort was not felt very much until early 1980 when a full fledged ministry of rural and community development was set up. This was aimed at providing better coordinated and articulated services to the rural population. This time around, rural development was made the cornerstone of the government's policy after having realised the need to uplift the standard of living of the rural population.

Activities of the ministry included rural water supply, rural feeder roads, central and rural workshops, regrouping of scattered hamlets, forestry which includes wildlife and gardens, poultry, planning small scale industry, agricultural loans, community development, home economics, public enlightenment and rural electrification through REB a parastatal under the ministry.

In order to boost industrial activities, industrialists were offered a package of incentives including: the provision of free industrial land outside Kano metropolis, provision of a five year ground rent free period, conduction of free feasibility studies and free management consultancy

services. The above measures were not taken only to promote rapid development of rural industries but also bearing in mind that virtually all the resourdes used to develop the urban centres came from the rural areas.

For it's period of existence the MRCD recorded the following achievements:

2.2.1. Feeder Roads: A total of 148km of rural feeder roads were constructed through out Kano state, 19km in 1980, 25km in 1981, 43km in 1982 and 61km in 1983.

2.2.2. Rural Water Supply: Rural Water Supply Schemes totalling 91 were completed by the MRCD. These include 60 boreholes, 27 open Wells and four treatment plants, 738 tube wells and rehabilitation of 1,414 others distributed all over the state.

2.2.3. Forestry: The main achievements in forestry between 1980-83 were the establishment of forest irrigated nurseries, production of 18.5 million tree seedlings, establishment of $420km^2$ of protective forest shelter belts and 110 hectares of protective plantation in water catchment and dam areas.

2.2.4. Irrigation Schemes: They are constructed by WRECA on behalf of MARD as follows:

Table 2.3.

Irrigation Schemes in Kano State.

PROJECT	AREA COVERAGE (HECTARES)
Kano River Projects (taken over by FGN)	200,000
Gari River Projects	200,300
Watari River Projects	100,300
Thomas River Projects	750
Jakara River Projects	600
Kafin Chiri River Projects	660
Gwarzo Road River Projects	600

Source: MARD, Kano (1987).

2.2.5. Rural Electrification:

An precedented achievement in the electrification of rural areas was recorded from October 1979 to September 1983 (see table 2.4). Before this time only seven towns were enjoying electricity namely: Hadejia, Gumel, Kazaure, Dambatta, Bichi, Malam Madori and Birnin Kudu.

Table 2.4.

Rural Electrification over the years in Kano State

ACTIVITY	PERIOD	NUMBER OF VILLAGES
Towns and Villages Electrified.from.	1979-83	130
Towns and Villages connected to NEPA villages	1979-83	47
Towns and/to be electrified within.	1986-90	52
Towns proposed to be handed to NEPA	5th NDP	68

Source: REB Kano (1981)

The MRCD was however disbanded in 1984 when the need was felt to reduce the number of ministries in order to reduce cost. Thenceforth community development was merged with local government to form the ministry for local government and community development. The scope of rural services was not strickly limited to any one ministry or agency. Three years later things were to change again in 1987 the MRCD was re-established only to be scraped one and a half years later (October 1988). The ministry restructuring exercise also affected the MANR which

was split into two, the ministry of Agriculture and rural development (MARD) and the ministry of Animal Health and Forestry. The former ministry of Information, Youth Sports and Culture is now renamed ministry for Social Welfare and Community Development.

2.2.6. Assessment of Rural Development in Kano State:

The desire of the Kano State government to improve the standard of living in the rural areas has been very encouraging. Rural electrification, feeder roads, pipeborne water, and hundreds of boreholes etc. have been provided in many towns and villages all over the state. But it is not clear how these villages were selected for the provision of the amenities and linkages and to what extent will this selection ensure future balanced development between the rural and urban settlements.

It was noted that rural development efforts in Kano State have been on ad-hoc basis, without public participation, long range spatial planning and inter sectoral coordination; consequently they failed to have any meaningful impact on the development of the rural areas.

2.3.0. Impact Case Studies.

2.3.1. Impact Case Studies of Appraised Integrated Rural Development Projects (IRDPs).

In Section 2.1.5. The nature and circumstances leading to the creation of the IRDPs or ADPs has been discussed. In this section, attempt will be made to provide an insight into the impact of the activities of the ADPs on the people within the project areas. To achieve this specific examples of appraised projects will be taken into consideration.

As noted earlier on the ADP was initially experimented in the early 1970s in three different locations including Gombe in Bauchi State, Gusau in Sokoto State and Funtua in Katsina State. Later on some of the ADPs meant to serve specific areas within a particular state (e.g. Gombe) were expanded to cover the whole state (e.g. Bauchi State). The projects strive to achieve both growth and equity in their respective target areas. The projects mission was to reduce poverty by increasing agricultural productivity to reach a majority of the people in and have a lasting effect on target areas.

At the heart of this policy is a development strategy emphasising new technology, supported by infrastructure and institutional coordination and finance in large measure with public funds. The FADP started in 1975 with the following specific objectives:

(a) To make improved farm inputs available to farmers at established farm service centres.

(b) To provide adequate farm extension, credit and marketing services including staff, vehicles and equipments.

(c) To construct about 1500km of low cost agricultural roads and earth dams for water supply.

(d) To establish an evaluation unit to asses the results of the projects.

The FADP covers an area of 7,500km^2. The target group of the project included all farming families in the area, but resource constraints and organisational difficulties made it necessary for priority to be given to so called progressive farmers'. These were farmers who were responsive to the projects extension advice and grew improved varieties. It was expected that the emphasis placed on these farmers would result in a demonstration and trickle down effects'.

Available data from the Federal Ministry of Agricultural and Rural Development (1979) "indicated that increases in yield have been recorded in the

FADP area".[7] However it has been observed that a large proportion of the increases in the FADP area is as a result of production by progressive farmers (see table 2.5). For instance in 1977/78 season over 70 per cent of the production of the crop that recieved greatest attension from the project (maize) was produced by progressive farmers Table 2.6 presents access to extension input by various categories of farmers in the FADP area.

Table 2.5.

Comparison of Yield Performance of Major Crop in FADP and GICP project areas with Traditional Yields in 1976/77 (Kg/Ha).

CROP	TRADITIONAL YIELD	YIELD IN PROJECT AREAS	
Sorghum	700	800	863
Maize	322	903	415
Cotton	190	1054	216
Groundnuts	198	750	356

Source: Federal Ministry of Agriculture and Rural Development (1979).

7. Federal Ministry of Agriculture, Water Resources and Rural Development, Integrated Rural Development Projects in Nigeria, 1979.

Table 2.6.

Extension Visits of FADP Staff to Different Categories of Farmers (1978/79).

Categories of Farmers	Number in Category	Percentage of Total	Extension Visits	Percentage of Total
Large Scale Farmers	186	0.002	3902	1.3
Progressive Farmers	19652	22.7	154235	60.1
Traditional Farmers	66438	77.2	99267	38.1

Source: Federal Ministry of Agriculture, Water Resources And Rural Development (1979).

It is clearly discernible from table 2.6. that the progressive farmers in the FADP are recieving a disproportionate share of the available extension input. This emphasis on progressive farmers, coupled with limited access to highly subsidised fertilizers by traditional farmers in the project area suggest that the FADP's success in introducing income increasing technology in it's target area is a result of the use of extension and fertilizers. Since those inputs do not appear to be reaching a majority of the people, they are likely to lead to greater inequality in the area.

In another study by Abalu et al (1979) it was observed that "the guided introduction to change project (GICP) carried out in Giwa area of Kaduna State, was able to achieve its intended results but was unable to sustain its performance. While the FADP appear to be successful but is achieving unintended results."[8] It was noted by Ekong (1978) that "each of these ADPs achieved some initial success in terms of increased agricultural productivity but they soon faced shortages of trained personnel and high maintainance costs."[9] Ekong (op.cit) further observed that "grassroot participation was almost absent as a result of conflict between the vested economic and political interests of influential elites and the aims of the projects."

Finally one can say that although the FADP started out to achieve the goals of increased agricultural production and improved welfare for the majority of the people, it only succeeded in increasing agricultural production but failed to

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8. Abalu G.O. et al, socio-economic aspects of semi-arid tropical regions of Nigeria; Paper presented at a workshop on semi-arid tropical agriculture, Icrisat, India 1979.

9. Ekong E.E., Rural Community Development in Africa; Development Towards what? Paper presented at the 4th World Congress of Rural Sociology, Torun, Poland, 1978.

make an impact on the poor farmers in the project area. In other words the spread of 'trickledown' effect was not achieved. Since the ADPs have not met their set objectives, it is necessary to reexamine the policy framework. "Rural development is a local affair and local capability must be created for effectiveness"[10] Adeyemo (1986).

2.4.0. Alternative Rural Development Strategies:

2.4.1. Physical Planning Strategies:

The strategies under this category reflect essentially the spatial reorganisation of spatial elements based on certain concepts with a view to achieving defined goals and objectives. In general physical planning strategies may be utilised to facilitate the following.

1. Enhanced efficiency in the distribution of services and utilities.
2. Increased social and economic productivity.
3. Defined social process and social relationships.

A number of physical planning strategies have been developed. The different strategies

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10. Adeyemo, O.A., Urban-Rural Planning as National Development Strategy, Paper presented at NITP annual conference Lagos, 1986.

reflect differences in the concept of the arrangement of the elements. Strategies can either be long term or short term. These can be one of the following for development on short term basis. Master plan, Development plan, and Donation of land uses. The long term plan may relate to regions within a political unit (state) or it may also relate to the political unit itself (country). This can be used for regional or subregional development within the context of national policies. The following constitute some of the strategies that have been tried.

1. The growth poles and growth centres
2. The central place theory.
3. The market centre strategy.
4. The service centre strategy.
5. The polarised activity region strategy etc.

Physical planning strategies can be used to work side by side with community development approaches to bring in development. For the purpose of this study, only two of the above mentioned strategies will be examined; the growth centre strategy and the central place strategy due to their relevance to the study as follows:

2.4.1.1. Growth Centre Strategy:

"A growth centre is a transformation of the growth poles of economic theory"[11] Perroux (1955), which will maximise the interdependency of the peripheries of each polarised region with its respective centre by gathering flows from the periphery and directing them up through the hierarchy; and by bringing the benefits of urban life to the smaller centres. In relation to regional development policy the notion implies that "investiment is best concentrated in growth centres rather than scattered around with the hope of "balance" or equity"(op.cit).

Although it is related to the central place theory, the growth centre is more closely allied with the ideas of a growth pole. The latter involved economic space defined in terms of forces of attraction and repulsion between one centre and various others. A growth centre in functional terms in rural Nigeria has the following purposes.

2.4.1.2. Application of Growth Centres in Rural Development:

The Growth Centre is to provide adequate

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11. Perroux, M.I., Economic spaces theory and applications, Quarterly Journal of Economics, No. 64, 1970.

services for the rural areas, and to stimulate the social and economic development of the area around it. This is to be achieved by the creation of a hierarchical network of centres. The growth centre strategy includes both the idea of growth and the notion of service centres. Although any growth centre can have the services element added, not all service centres can become growth centres. "The growth centre concept provides an opportunity for the integration of innovative in puts by all agencies working in the rural areas."[12] Mabogunje (1978). The spatial aspects of the strategy emphasise the distribution element which seem to be lacking, but which should be a central feature of Nigeria's rural development strategy.

Growth centres can be established all over the country on a small enough scale to allow effective local involvement. Local planning could be decentralised at least the local government headquarters (main rural centre) rather than at the State level as at present. The

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12. Mabogunje A.L., "Growth Poles and Growth Centres in Nigeria", in Kuklinski (ed) Regional Policies in Nigeria, India and Brazil 1978.

concept however needs to be refined and developed especially in relation to the linkages in socio-economic terms between such centres and their hinterlands.

The application of this concept will not solve all the problems of rural development in Nigeria, but will give people on whom all development ultimately depends, a better opportunity to achieve the aims that they consider to be desirable.

2.4.1.3. Central Place Theory:

Another theory of significance in understanding the structure and the functions of rural settlements and planning is the central place theory (CPT). The CPT was developed by Christaller (1933). His concern was "the construction of a purely deductive theory to explain the size, number, and distribution of towns, in the belief that there is some ordering principle governing the distribution."[13]

The conceptional framework of Christaller's model is presented in what he calls the fundamental

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13. Christaller, W., Central Places in Southern Germany, 1933.

meanings. The major under pinnings of the CPT are as follows: That one of the fundamental order of things is the cristallization or centralisation of its mass about a nucleus. The guiding centralistic principles are also applicable to the organisation of man and his activities. Accordingly the town which is the basic form of human community life can be seen as a nucleous or the centre of a regional community and the mediator of the community's commerce. The town functions as the central place of the community. Hence according to Christaller (op.cit)" a Central Place is, therefore a place which has central functions that extend over a large region in which other central places of less importance exist."

The CPT was later developed by Berry and Garison (1958) who made generalisation on the factors that determine the distribution, spacing and the size of complementary regions. The result was the introduction of two concepts namely the threshold population and the range of a good or service. Thus briefly the central idea behind the CPT has been discussed.

2.4.1.4. Application of CPT in Rural Development:

The CPT has been heavily criticised for a number of reasons notable among which are the problems associated with its basic assumptions. That notwithstanding the CPT has two potential roles to play. First as a framework for understanding the regional or sub-regional spatial pattern or structure and secondly as a model for future planning. The central places will be essential starting points for planning the size and functions of settlements in any rural sub-region (L.G.A), or in the rural parts of city regions.

A proper understanding of the relative degree of centrality of any given village may be seen as necessary for the determination of its future role in the sub-region/region. Its development as a central place or as a location for the distribution of physical and social infrastructural facilities, farm inputs and collection point for farm products. This is more so because the CPT recognises the identification of different grades of centres and the delineation of the servicing area

(complementary region) of a centre. A basic arguement in support of the use of central places in planning is that a hierarchical system of centres avoids duplication and waste.

The CPT has been applied in the regional planning of many countries. Examples include shopping studies in the North and West Midlands in some schemes in Holland; and in the location of investments in Ghana, Israel and Nigeria.

It is clear that out of the reviewed and evaluated strategies none of them can provide the type of rural development envisaged on its own. This is regardless of the huge sums of money disbursed. Even the most suitably considered integrated rural development in conjuction with some physical planning strategies need the support of other strategies especially the institutional and community development efforts. There has to be complementary efforts from the communities, the local, state and federal governments collectively.

This issue raises the question of coordination, which seem to be lacking; although it should be central to Nigeria's rural development strategy. The way a particular project relates to others in the locality is rarely considered. But

since rural development is a local affair it is necessary to create local capability for effectiveness or else history will repeat itself. Chapter three presents the existing physical conditions, social and economic characteristics of the study area.

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It is clear that out of the reviewed and evaluated strategies none of them can provide the type of rural development envisaged on its own. This is regardless of the huge sums of money disbursed. Even the most suitably considered integrated rural development in conjuction with some physical planning strategies need the support of other strategies especially the institutional and community development efforts. There has to be complementary efforts from the communities, the local, state and federal governments collectively.

This issue raises the question of coordination, which seem to be lacking; although it should be central to Nigeria's rural development strategy. The way a particular project relates to others in the locality is rarely considered. But

since rural development is a local affair it is necessary to create local capability for effectiveness or else history will repeat itself. Chapter three presents the existing physical conditions, social and economic characteristics of the study area.

CHAPTER THREE

3.0.0. THE STUDY AREA.

This chapter provides an insight into the physical conditions including geographical background and existing physical and social infrastructural facilities, social and economic characteristics of the study area. Before 1967 it was under Kano province in the then northern region. Thereafter it was brought under the administration of Kano State following the creation of 12 states in Nigeria. It was during that time that the eight divisions were curved out of Kano state for administrative purpose. Six district councils Gwaram and Birnin Kudu inclusive constituted the Kano South-East administrative area with headquarters at Birnin Kudu.

In 1976 following the local government reform, Birnin Kudu and Gwaram districts were merged to form the BKLG with headquarters at Birnin Kudu. In 1980 BKLG was split into two, Gwaram district becoming a new local government of its own (GRLG). However in 1984 BKLG and GRLG were merged again to form the present BKLG, the area of study.

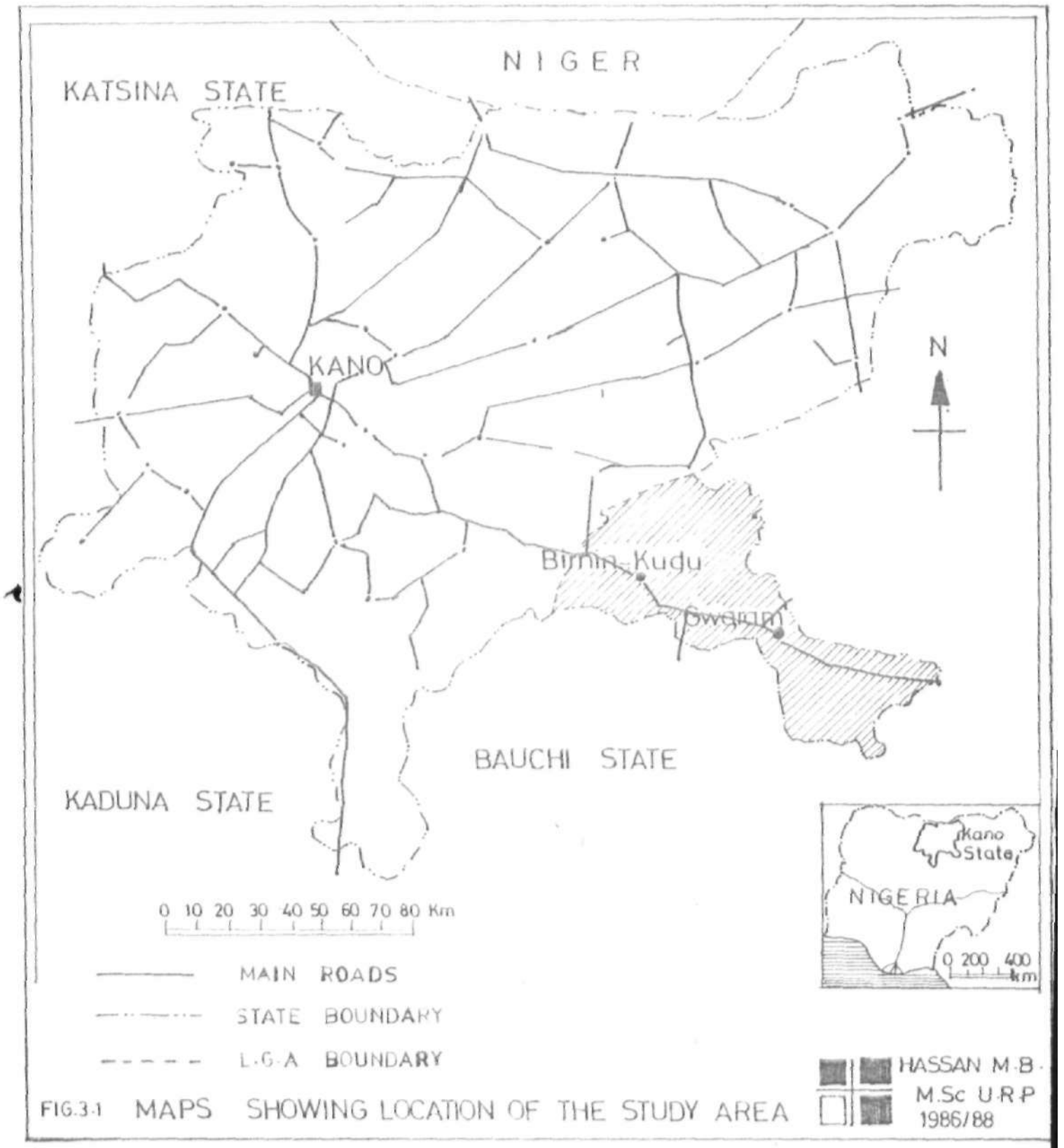


FIG.3.1 MAPS SHOWING LOCATION OF THE STUDY AREA

Source: I.F. Antwi, Geography Dept. B.U.K.

laterític mesas and bhuttes. The laterite is found to be suitable for building and construction purposes.

3.1.3. Climate

The climate of the study area (as it applies to the whole of Kano State) is influenced primarily by the movement of two winds (air masses).

The Wet Season: The tropical maritime air mass (MT) winds bring hot and humid weather. The rains are usually heralded by violent thunderstorms. This wet season usually lasts from May to September or October. Mean annual rainfall is 950mm while annual rainfall level may range between 31.5% to 43.5%. The months of July and August receive the heaviest amount of rainfall. The amount of rainfall varies from year to year.

The Dry Season: This season lasts from November to April or May. Tropical continental (CT) air mass or Hammattan blow during the dry season. These winds blowing from Sahara are usually dust ladden, dry and cold. The lowest temperature readings are recorded during this time.

3.1.4. Hydrology

The regime of available water is closely related with climate. In most streams and rivers (fig. 3.2) stream discharge and overland flows are seasonal. Run off is high in wet season especially with the onset of the rains. The water table is also relatively high during this time.

Variations in water levels in the artificial lakes depends on the flow of water during the wet season and water consumption and intensive evapo-transpiration during the dry season. Water levels are lowest by the end of the dry season. The rivers dry-up in November and December.

3.1.5. Soils and Vegetation

Except for heavy textured alluvial soils of the river valleys and low-laying wet lands (fadamas) majority of the soil in the upland plains are light textured drift soils.These soils are very fertile and are mostly found over laterite or weathered rocks. Many crops are well supported by these soils especially with the constant replenishment of deficient nutrients through correct use of fertilizers.

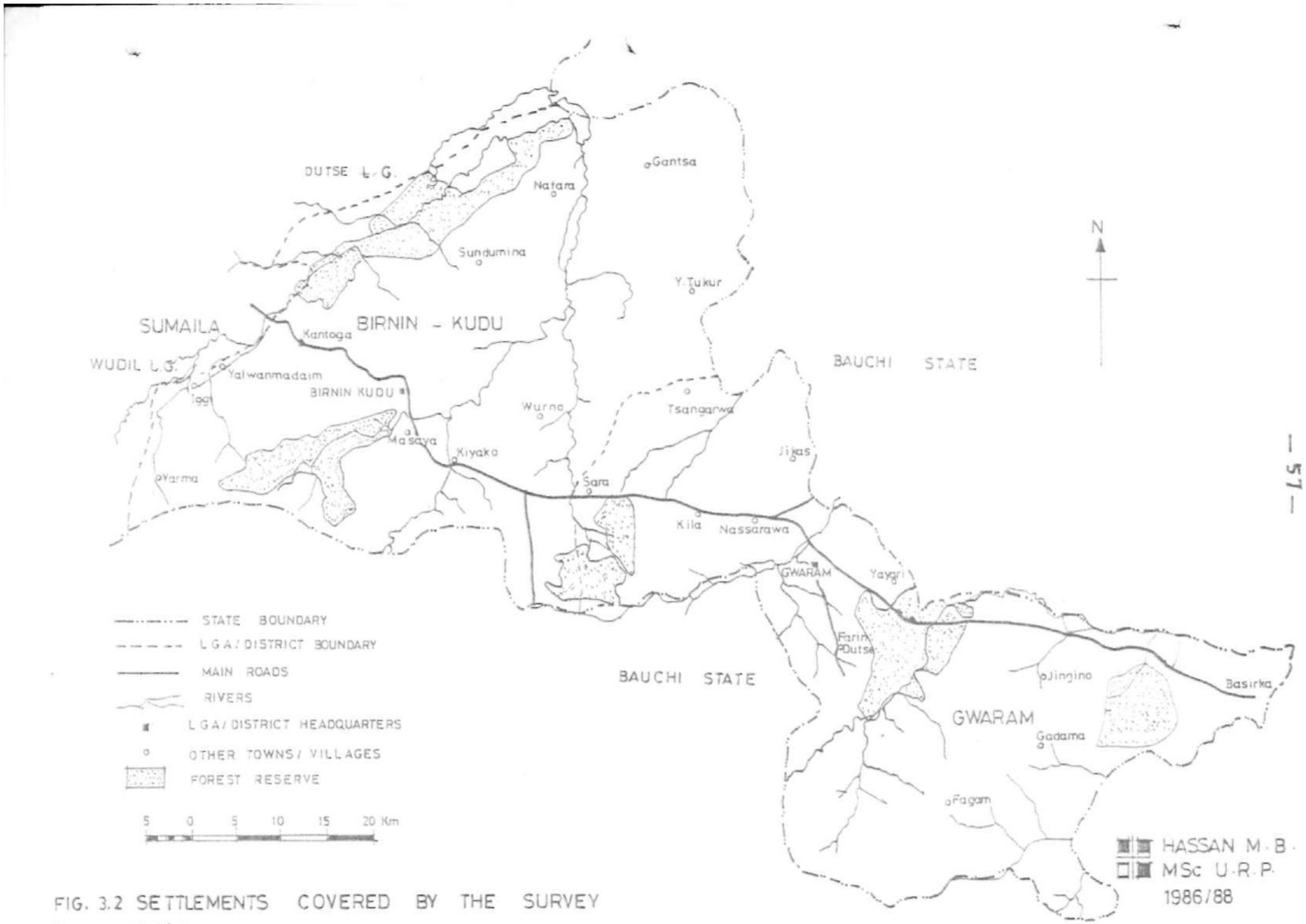


FIG. 3.2 SETTLEMENTS COVERED BY THE SURVEY

Source: Fieldwork.

The vegetation is that of Sudan Savannah type with occasional forest plantations and forest reserves. Forest resources include seeds, fruits, fibres, fuel, bushmeat and grazing land.

3.1.6. Land Use

In the study area land utilization patterns are as follows:-

1. Agricultural Area.
   (a) Arable land
   (b) Farm land
   (c) Irrigated land
   (d) Flood plain
   (e) Fallow land.
2. Forested land
   (a) Forest plantation
   (b) Forest reserve.
3. Other Areas
   (a) Unused but productive
   (b) Built-up areas
   (c) Rivers, lakes and swampy areas
   (d) Uncultivated.

3.2.0. Existing Spatial Characteristics

These comprises of the following:- Road type and network, distribution and heirarchy of settlements, distribution of Ufs, population size and density, and industrial establishments.

3.2.1. Road Type and Network.

Roads constitute the major transportation facility in BKLG. There are four heirachies of the road network. These include federal or regional roads in the first category, this is mainly the Kano-Maiduguri road. Next in the heirachy include Gwaram-Basirka and Babaldu-Ningi roads owned by state governments. The third type are essentially the rural feeder roads constructed by KNARDA in its effort to provide farm-market linkages. Lastly there are minor laterite roads which are usually widened footpaths linking primary villages with other areas. Such roads are constructed through community self help efforts as shown in (fig.3.3 and table 3.1).

The regional and state roads provide linkages between BKLG and other parts of the country. The other types are mostly feeders to the main roads. Their major role is to enhance movement of people, goods and information between the rural areas and other neighbouring areas.

A summary (table 3.1) of the road types and total length is shown below.

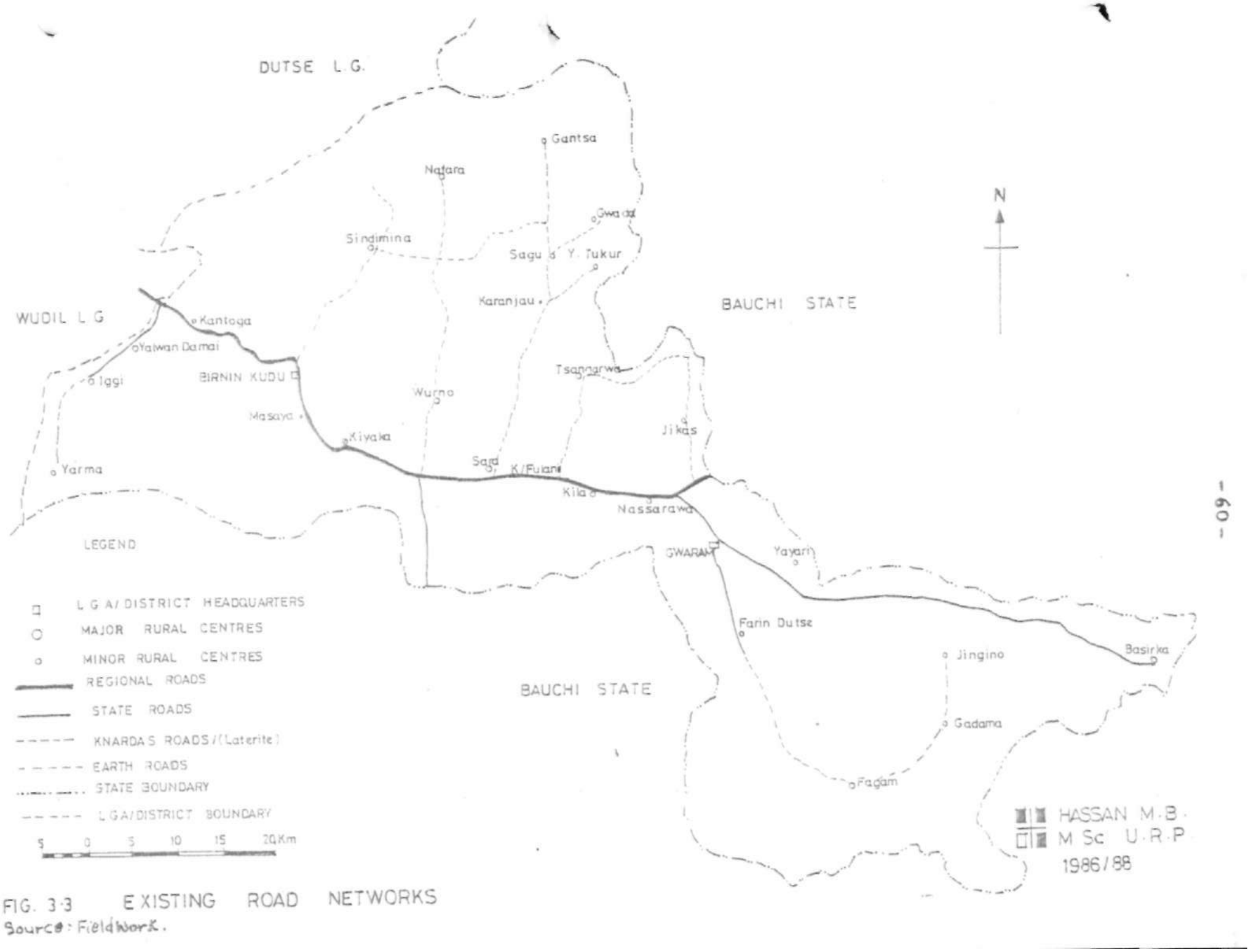


FIG. 3.3 EXISTING ROAD NETWORKS
Source: Fieldwork.

Table 3.1.

Road types and total length (km) in BKLG.

Road type	Agency Responsible	Nature of the road	Total length (km)
Primary	FGN	Bitumen	87
Secondary	State Governments	"	85
Feeder (A)	KNARDA	Laterite	107.5
Feeder (B)	Communities	Earth	130
Total			409.5

Source: Field work (1987/88).

3.2.2. Distribution and Hierarchy of Settlements

Linear and dispersed settlements patterns were identified in BKLG (fig. 3.2). Four heirachies of settlements were noted (table 3.2). Each heirachy is determine by the availability of Ufs and other socio economic factors within the individual settlements. This measurement produces the functional (hierarchical) specialization of each settlement.

Table 3.2.

Existing Hierarchy of Settlements

S/NO	Settlement	Total Score (Appendix)	Functional hierarchy	Order of Settlement
1.	Birnin Kudu	33	LGA/District	First Order
2	Gwaram	29	Headquarter	
3.	Sara	15		
4.	Basirka	14		
5.	Sindimina	13	Major rural	Second Order
6.	Wurno	11	Centre	
7.	Kila	11		
8.	Yalwan Damai	11		
9.	Tsangarwa	11		
10.	Yayarin Tukur	10		
11.	Fagam	9		
12.	Iggi	8		
13.	Nafara	8		
14.	Nassarawa	7	Minor	Third Order
15.	Gantsa	7	Rural Centre	
16.	Masaya	6		
17.	Ciyako	6		
18.	Jikas	6		
19.	Gadama	6		
20.	Farin Dutse	5		
21.	Kantoga	5	Primary	Fourth Order
22.	Yarma	5	Villages	
23.	Jingino	4		
24.	Yayari	4		

Source: Field Work (1988).

3.2.3. Distribution of other Utilities Services and Facilities (UFS).

Appendix Summarizes the existing distribution of Ufs in BKLG. From the table the following observations were made.

3.2.3.1. Electricity: Only eight out of the 24 sampled settlements have electricity supply. One was provided at Tsangarwa through self help, while the rest were electrified by the rural electricity Board (REB).

3.2.3.2. Water Supply: 19 settlements out of the 24 sampled settlements have clean water supply.

3.2.3.3. Health Facilities: The only general hospital in the area is located at Birnin Kudu. There is one maternity clinic in each of the settlements namely:- Gwaram, Basirka and Sundimina. There is only one functional comphrehensive health centre at Gwaram. There are six health clinics (Dispensaries) located in other major rural settlements. However 15 out of the 24 sample settlements (62.5%) are without any form of health facility.

3.2.3.4. Educational facilities.

(a) Primary Schools:- The number of primary schools per settlement varies from one to three, depending upon the size and pupolation of the settlement. It was however noted that each of the sampled settlements has at least one primary school. The schools were initially under the local education authority (L.E.A) later they were taken by local governments. Recently for almost three years now they are under the newly established primary schools management Board. The total number of primary schools in the area is thirty.

(b) Post Primary Schools:- At the moment there are nine post primary schools in the area. Eight are secondary schools with one Arabic Teacher Training College. Although co-educational schools were not encouraged in the whole state, it was however observed that there was no single school for girls. Responsibility of running the schools rest solely on ministry of education.

In addition to all these there are other institutions in the area including school of nursing and midwifery at Birnin Kudu, Women Training Centres at Gwaram and Birnin Kudu each and many

adult literacy and Islamiya classes.

3.2.3.5. Communication Services (including Postal Services and Telecommunication): There is only one postal agency at Birnin Kudu. The only Telecommunication Service offered is through wireless radio message which is restricted to certain government agencies like the KNARDA and the Police. There is no public telephone service yet for the area.

3.2.3.6. Security Services:- The only fire service station is situated at Birnin Kudu. However there are police stations and police posts at strategic settlements.

3.2.3.7. Commercial Institutions: There are only two commercial banks one each at Gwaram and Birnin Kudu. There are ten KASCO Stores selling farm inputs to the farmers. There are daily and weekly markets in all surveyed settlements. However most of the commercial activities in such markets are not well organized. Agricultural produce buying centres were conspicuously absent.

3.2.4. Industrial Establishments:

There are mainly cottage industries with specialization in handicrafts, woodwork, black-smithing, cloth and mat weaving, rope making and

cloth dyeing. Also found in the area are small scale industries including rice and corn mills, bread bakeries and block making industries (see Appendix). There are 118 small scale industries operating in BKLG.

3.3.0. Socio-Economic Characteristics:

The distribution of population among the sampled settlements is shown in fig. 3.4 and table 1.1. The table shows that Gwaram has the highest population figure of 19,369. The lowest figure was recorded at Gantsa with a population of 2,310. The population figures were obtained from KNARDA, Birnin Kudu Zone. The socio-economic characteristics of the population are as follows:-

3.3.1. Population Size and Density:

The present population size for the local government area stands at 161,406. Hence population density was found to be 45.36 persons per square kilometre. In the section to follow more light will be thrown on the social and economic characteristics of the people.

3.3.2. Household Head Information:

This study defines a household as a group of persons who eat from a common pot. All information

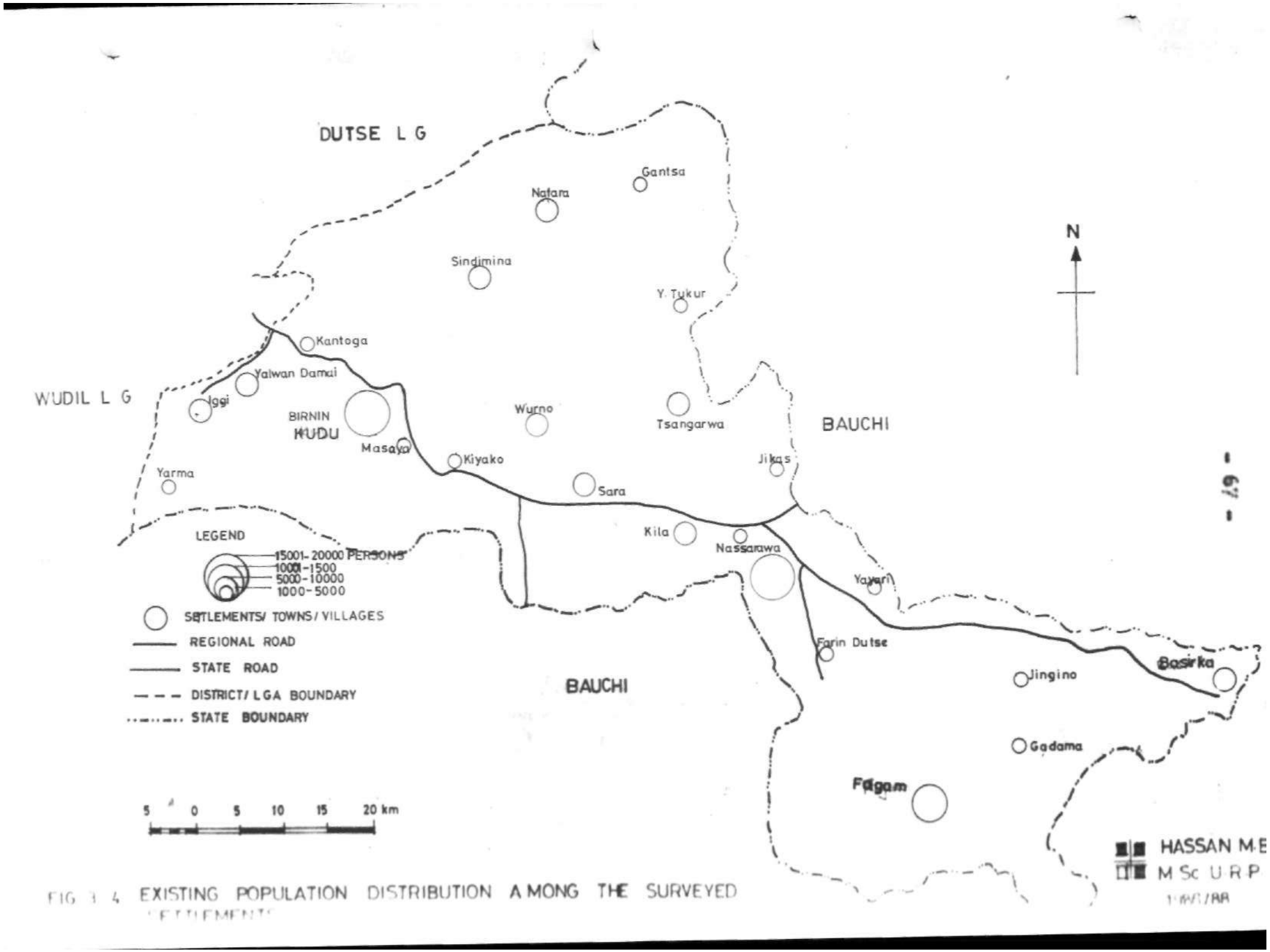
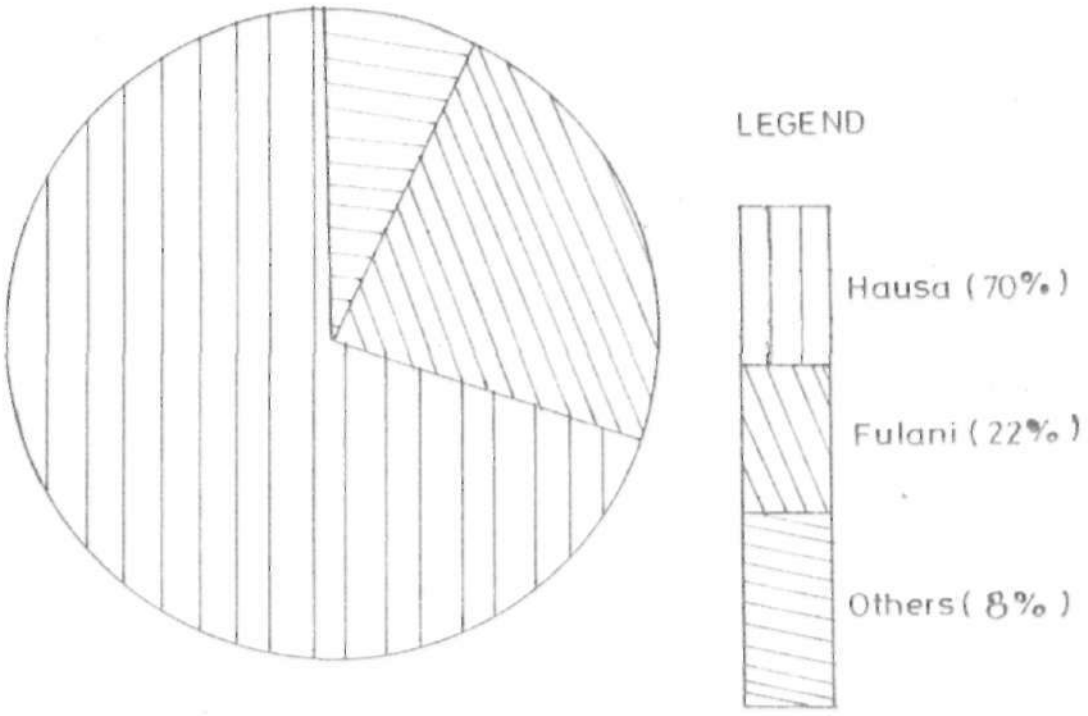


FIG 3.4 EXISTING POPULATION DISTRIBUTION AMONG THE SURVEYED SETTLEMENTS



RESPONDENTS' ETHNIC GROUPS

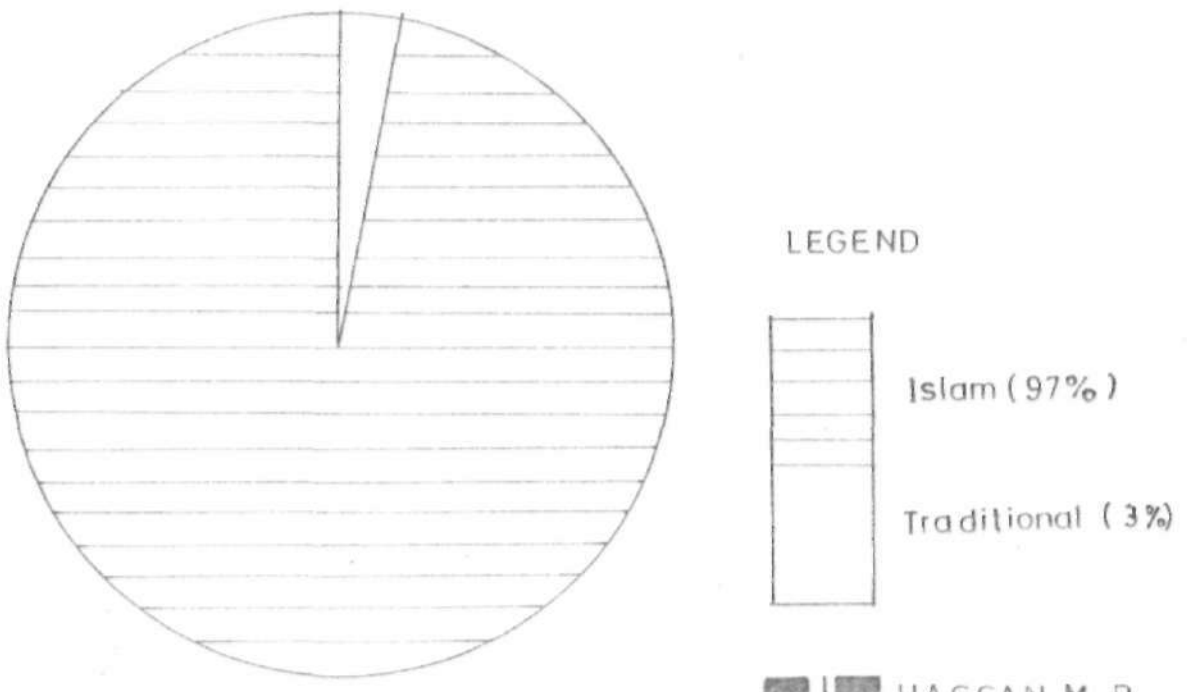


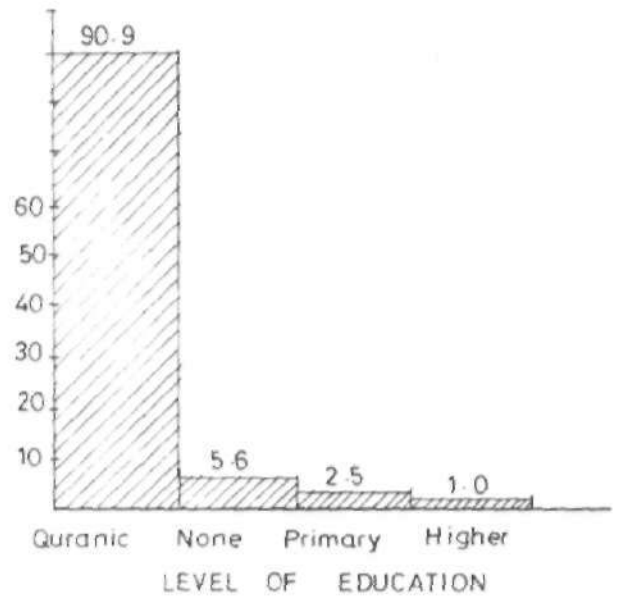
FIG. 3.5. RESPONDENTS RELIGION
Source: Fieldwork.

presented here was obtained from individual sampled household heads (respondents) fig. 3.5 and 3.6 summarise the background information on the households tribal language, religion, mean family size and level of education attained.

The fig. (3.5) illustrates that households in the sub region have been predominantly Hausas (70%), followed by the Fulani (22%) and other tribes (8%). A significant proportion of the households have attained some Quranic education (90.9%) which certainly conforms with the high proportion of Muslims in the area. Out of the total number of households interviewed 5.6% were recorded without any form of education while 2.5% and 1.0% have attained atleast primary and higher level of education respectively.

3.3.3. Age-Sex Structure:

Fig. 3.6 illustrates the age and labour force composition of the rural population in the study area. It can be noted that 58.0% of the population are under the age group 20 years, 35.0% in the age bracket of 20-50 years while 7.0% are in the age group 50 and above. Children in the age group 0-5 constitute the highest proportion in the classes (18%) followed by the 6-10 group of 11%. This trend has remained fairly constant in all the



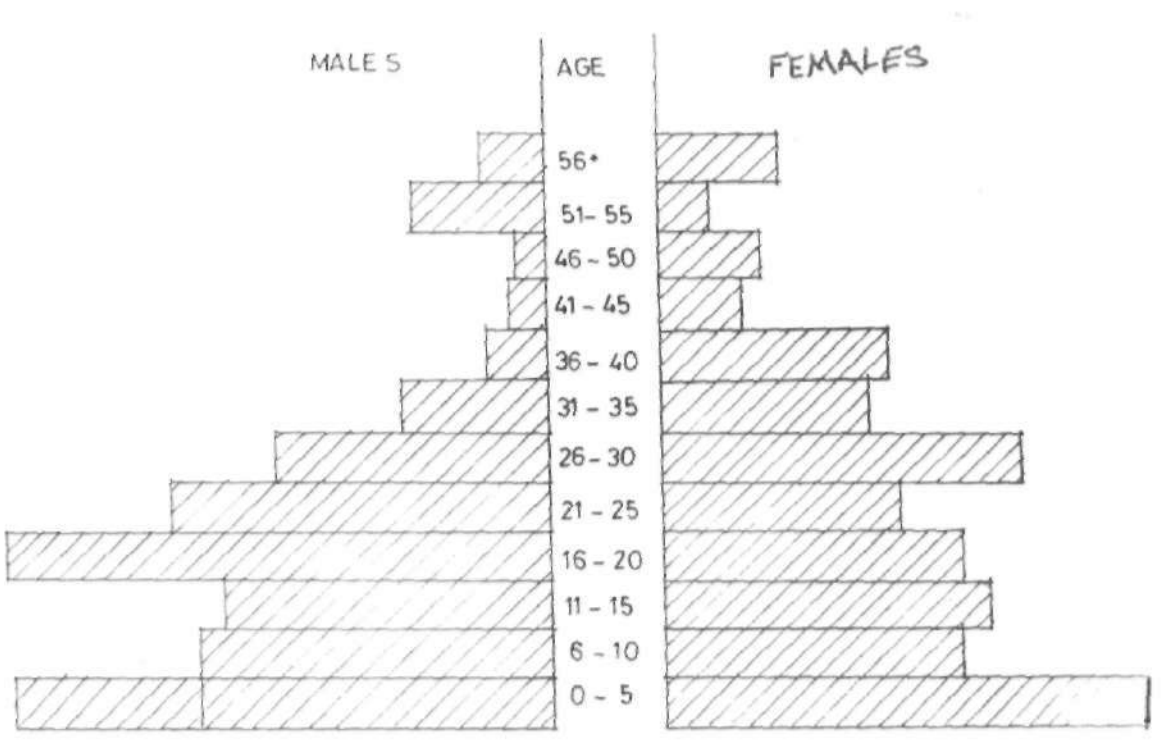


FIG. 3.6 AGE - SEX STRUCTURE

Source: Fieldwork

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settlements.

The high proportion of young children in the population structure has been attributed to the increasing birth rate coupled with the decreasing infant mortality. This also indicates the high proportion of school going children. The figure also illustrates the sex ratio between males (52.0%) and females (48.0%) in addition to the rural population that presumably constitutes the economically active farm labour force. Mean family size was found to be seven.

3.3.4. Farming Practices:

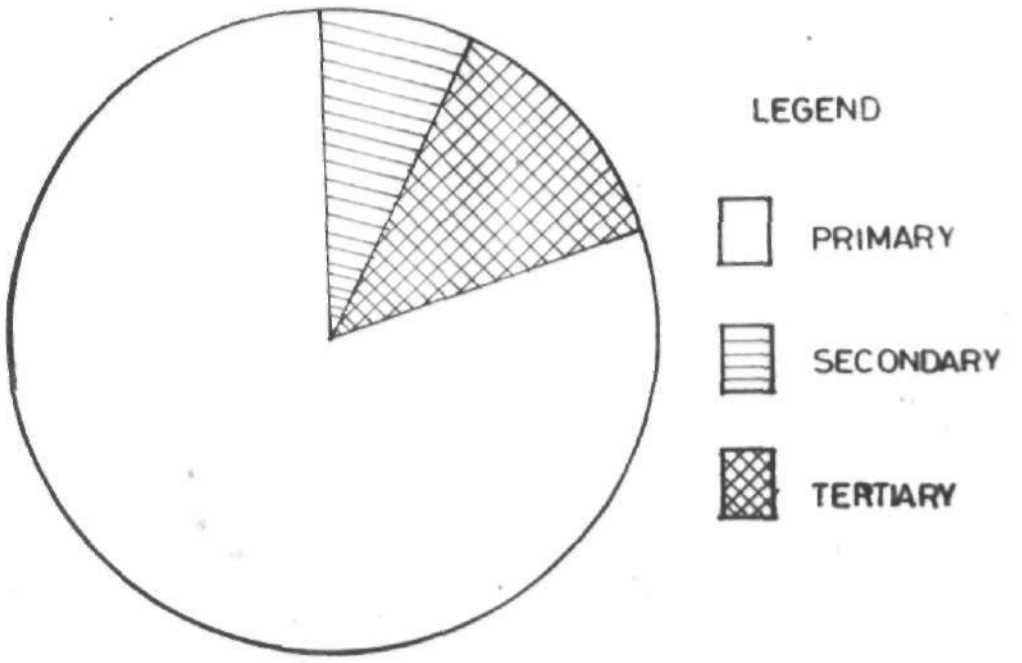
The farm is the area cultivated by a household. Most individual household farms in the sub-region consist of small number of scattered holdings within a radius of three to five kilometres from their settlements. Farm size estimation has always been difficult not only because of scattered number of fields owned but also due to people's inability to measure the farm sizes accurately. Therefore emphasis was placed on the number of fields (plots) owned by individual households which also has a tendency of under or over reported. The survey revealed a highly variable number of holdings owned, however the mean plot ownership was found to be four. Major crops grown

in the area include Sorghum, Millet and Groundnuts. Also grown on a smaller scale are cowpeas, rice, wheat and spices. Sole and intercropping are practiced depending on individual preference.

With regard to hired labour 59% of the house holds hire labour for farm operation. Highest demand for hired labour was for weeding (49%) whereas only 27% of the households hire labour for land preparation and harvesting.

3.3.5 Occupation and Income:

Crop and livestock farming are the principal economic activities of the people. According to the survey 80% of the population depend primarily on agriculture for their livelihood. The remaining are either civil servants, traders or craftsmen. Some have more than one occupation as in the case of a local barber who may also be a farmer. Fig. 3.7 shows the pattern of income distribution from the primary and other sectors of the rural economy. The income structure is considerably high bearing in mind the predominance of agricultural production as the major source of income. This area and others within the same favourable climatic zone of the state are refered as rumbun Kano; meaning Kano's grain store. The sales of cash crops and surplus foodcrops explains the relatively high income levels.



RESPONDENTS' OCCUPATION

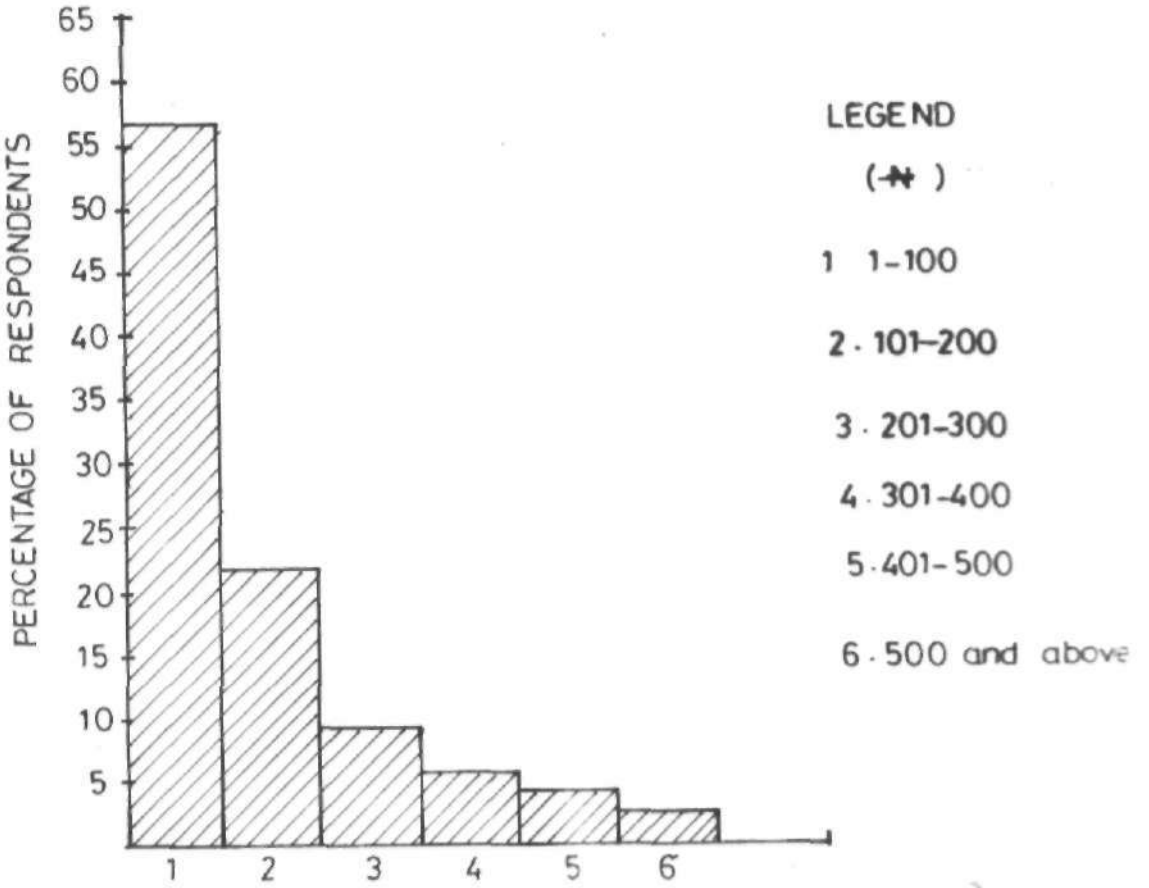


FIG 3.7 RESPONDENTS AVERAGE MONTHLY INCOME (₦)

Source: Fieldwork.

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3.4.0. Other Agencies of Development:

Included in this category are formal and informal organisations.

3.4.1. Formal Organisations:

(a) Kano Agricultural and Rural Development Authority (KNARDA)
(b) Water Resources and Engineering Construction Agency (WRECA)
(c) Rural Electricity Board (REB)
(d) Local Government Council (LGC)
(e) Ministry of Social Welfare and Community Development (MSCD).
(f) Ministry of Trade Indutry and Cooperatives (MTI
(g) Ministry of Agriculture and Rural Development (MARD).
(h) Directorate of Food, Roads and Rural Infra Structure (DFRRI).

3.4.2. Informal Organisations:

(a) Community Development Associations
(b) Co-operative Societies
(c) Youth Clubs.
(d) Farmer groups.
(e) Adult Education classes
(f) Home economics classes.

All these organizations serve as development and enlightenment agencies. They are potential sources of finances materials, labour and media for spreading new ideas and techniques. Given all necessary aids, the people can be easily mobilized through the activities of the agencies to identify human and material resources for the

development of the area.

3.5.0. Rural Development Efforts By Birnin Kudu L.G. Council:

The activities of the local government in terms of rural development include:

(a) The construction and repair of access roads in the bigger settlements and feeder roads for the smaller settlements.
(b) Construction of new markets and the up-grading of existing ones.
(c) Construction of dispensaries and maternity clinics.
(d) Construction and Maintenance of Motor parks.
(e) Construction of blind centres.
(f) Construction and Maintenance of slaughter slabs/houses,
(g) Purchase of drugs and medical equipments.
(h) Purchase of electricity generators and appliances for the benefit of staff
(i) Television viewing centres.

These projects are usually carried out on contract basis. The amount of money spent on such projects within twenty months (between 1987 and 1988) is shown below (see table 3.3)

Table 3.3

Summary of Rural Development Efforts by BKLGC (1987/88)

S/NO.	PROJECT	TOTAL COST (₦)	LOCATION
1.	Access roads and drainage	1,000,000	Birnin Kudu and Gwaram
2.	Up grading existing Markets	350,000	Sara, Fagam Y/Damai Wurno and Sundimina
3.	Construction of new markets	500,000	Birnin Kudu and Gwaram
4.	Minor road construction and repairs.	160,000	Villages
5.	Construction and Maintenance of Motor parks	400,000	In 15 different villages
6.	Construction of blind centres	80,000	Sara and Gantsa
7.	Construction and Maintenance of Slaughter houses	100,000	10 different villages
8.	Construction of Dispensary/ Maternity Clinics	160,000	Basirka, Gwaram, Y/Tukur and Sundimina
9.	Purchase of drugs	202,000	for the whole local government.
10.	Purchase of electricity generator and appliances for the benefit of the staff	300,000	Gwaram and Birnin Kudu
	TOTAL	3,252,000	

Source: Field Work (1988).

3.6.0. Community Development Efforts in BKLG:

These essentially comprises of the activities of informal organisations including community development associations, co-operative societies youth clubs etc. Such projects are carried out on self-help basis and they are usually simple and less capital intensive. The projects are initiated by the people based on their felt needs and problems. A high degree of local participation is involved in the design and implementation of the projects. While local resource endownments are usually mobilised for the execution of such projects, the people are equally mobilized to raise latour force, financial and other necessary material input for the projects. Projects in this category include the following:

(a) Repair of minor roads
(b) Clearing of bush paths, village squares and prayer grounds.
(c) Construction and Maintenance of drainages
(d) Refuse disposal
(e) Building of Islamiya Schools
(f) Building classrooms for adult education and
(g) Digging public wells.

MONEY SPENT ON SUCH PROJECTS

Table 3.4.

Amount of money spent on Community Development Projects in BKLG 1987-88.

Money/Materials Value in (₦)	Source
16,000	State Government
90,000	Local Government Council
1,880,000	Donations from individuals/ organizations.

Source: Fieldwork (1988).

The role of local community development officials in the initiation, design and implementation of such projects is commendable. Indigenes of rural communities who reside in towns and cities also contribute a lot towards the success of the projects morally and financially. The next chapter deals with appraisal and assessment of impact of the activities of KNARDA in the study area.

CHAPTER FOUR

4.0.0. APPRAISAL OF THE IMPACT OF THE ACTIVITIES OF KNARDA IN BKLG

4.1.0. Background Review of KNARDA:

Before the creation of KNARDA in 1982 rural development efforts were undertaken by several agencies including MANR, MLG and NRCD. The aim of forming KNARDA was to coordinate rural development efforts in Kano State. Although KNARDA has not spelt out clearly the difference between its aims and objectives, but through the available information in the midterm review report (1984) the following aims and objectives were discernable.

4.1.1: Aims:

The project was established by the Kano State government with the aim of "increasing the standard of living of farming families throughout the State"[1] it is charged with the responsibility of bringing about rapid rural development, increasing rural incomes and hence reducing rural to urban migration. And these were said to be

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1. KNARDA, Project Midterm Review Report, 1984.

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achievable through the following objectives.

4.1.2. Objectives:

1. To improve farm production
2. To improve the distribution of farm inputs through KASCO.
3. To bring about rapid rural development.
4. To rehabilitate open wells.
5. To construct rural feeder roads.
6. To drill drinking water bore holes.
7. To train and establish an effective authority that will continue the programmes in due course.

4.1.3. Organisation:

KNARDA is directed by an executive committee (KNARDEC) which controls the operation of the project through a Management Unit (PMU) headed by the Programme Manager and a Kano State Agricultural Supply Company (KASCO), a subsidiary commercial arm of the authority. The headquarter is at Kano, however to ensure effective control, the state has been divided into four zones each with a zonal management unit (ZMU). Zone three consists of four local governments including Gaya, Dutse, Wudil and Birnin Kudu, with headquarter at Birnin Kudu. Each ZMU consists of eight

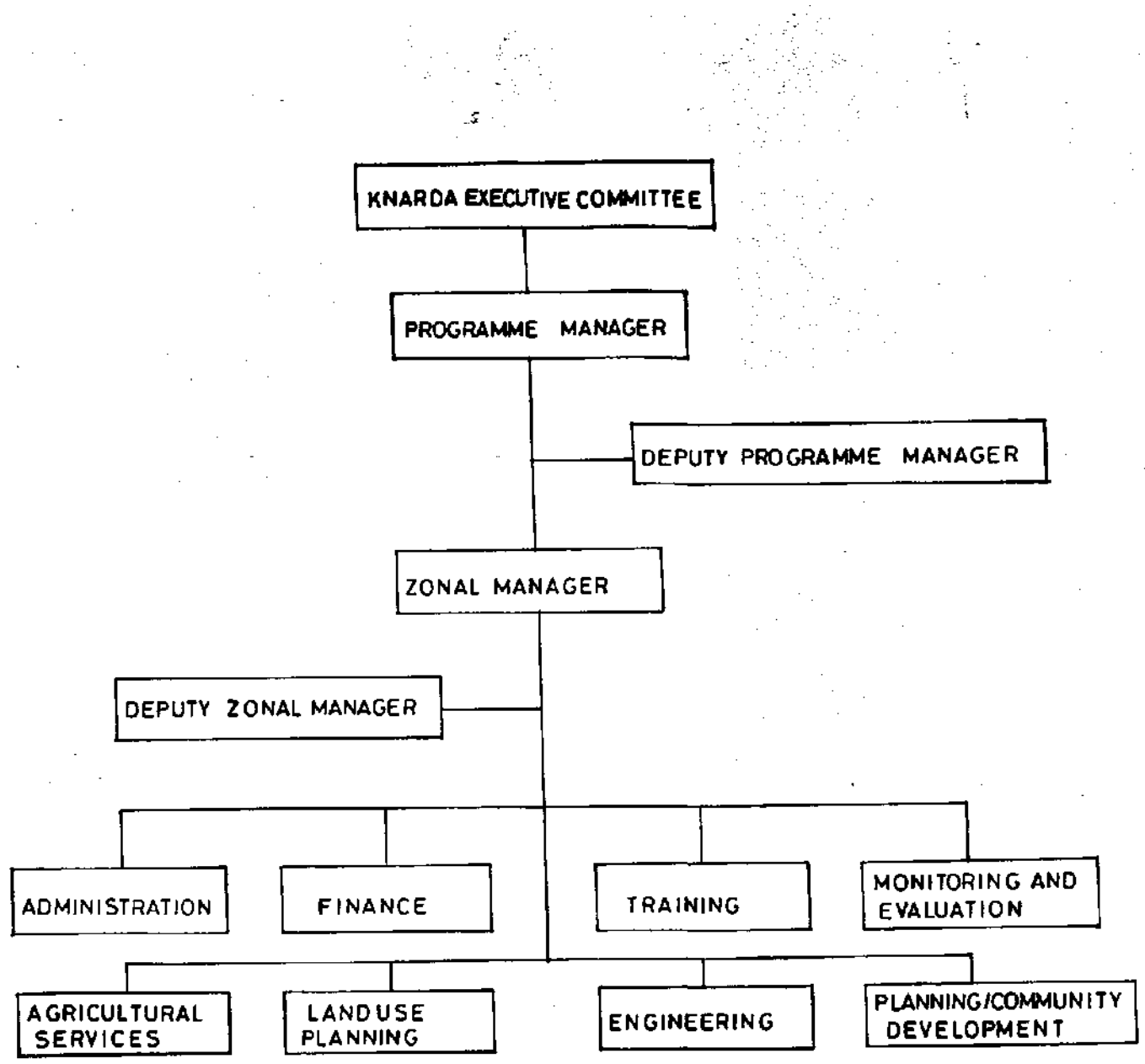


FIG. 4.1 KNARDA ORGANISATIONAL CHART

Source: Adopted from KNARDA.

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departments namely administration, accounts, finance, agriculture, planning and community development, training, engineering, landuse planning, monitoring and evaluation. (see fig. 4.1).

4.1.4. Finance:

The wauthority is funded under an agreement between the Kano State Government, the Federal Government and the World Bank as follows:

Project estimated cost 286.3 million Naira.

4.1.4.1. Financing Plan agreed:

Cash inputs

KNSG	40.9%
FGN	22.5%
The World Bank	36.6%

4.1.4.2. Fertilizer and Farm Subsidies:

KNSG	25.7%
FGN	30.8%
Total	56.5%

World Bank contribution to include plant, vehicle, equipment, fertilizer, chemicals, implements, salaries, consultants and oversees training.

4.1.5. Activities:

The aims and objectives of KNARDA have been translated in the form of agricultural and rural development programmes that are carried out by its various departments.

4.1.5.1. Infrastructure Development:

(a) Constructing and maintaining rural feeder roads to facilitate input supply, produce evacuation, movement of people services and ideas.

(b) Improving rural water supply for farming and domestic purposes through drilling of boreholes, tubewells as well as establishing maintainance programme for these infrastructural facilities.

(c) Constructing farm service centres.

4.1.5.2. Farm And Crop Development:

(a) Increasing production of major crops e.g. Millet, Sorghum, Groundnuts and Cowpeas both under rain fed and Fadama farming.

(b) Strengthening extension services and providing improved seeds, fertilizers, crop protection and other support services.

(c) Improving farm management through advanced service packages involving the use of workbulls, machanisation, herbicides and planned water management and pump irrigation.

(d) Carrying out applied research programme and promoting the uptake by farmers of simple agricultural technology to improve production.

(e) Building up seed production service.

(f) Establishing forest nurseries and planting degraded water sheds with trees.

(g) Improving land use planning capability and advice on land problems and development opportunities.

(h) Improving the supply and distribution of farm imputs.

4.1.5.3. Institutional Support:

(a) Providing a management structure to assist timely decision making.

(b) Training in improved agricultural methods, infrastructure, communication and rural administration.

(c) Establishing staff development and media centres.

(d) Supporting the operations of KASCO in the distribution of inputs through farm service centres and farmer groups.

(e) Assisting and promoting storage of farm produce.

Going through activities of KNARDA as shown above, it was noted that all efforts were geared towards raising the level of farmers income through increased agricultural production, the spatial base for rural development was not established.

4.2.0. Appraisal And Assessment of Impact of Activities of The KNARDA Project:

With six years gone since the inception of

the KNARDA project, the need to assess its impact on the people cannot be overemphasised. The impacts may be negative or positive or both, it may also include economic, socio-cultural and physical impact. The general criteria to be used for impact assessment are as follows:

(a) The assessment will be in accordance with the set objectives of the project.

(b) The conditions before the project and after its inception will be compared.

4.2.1. Assessment of Impact of The Activities of The KNARDA Project on the People in BKLG.

4.2.1.1. Economic Impact: These include impact through extension contact and input sales, imput through credit facilities; and input through employment opportunities.

(a) Impact Through Extension Contact and Input Sales:

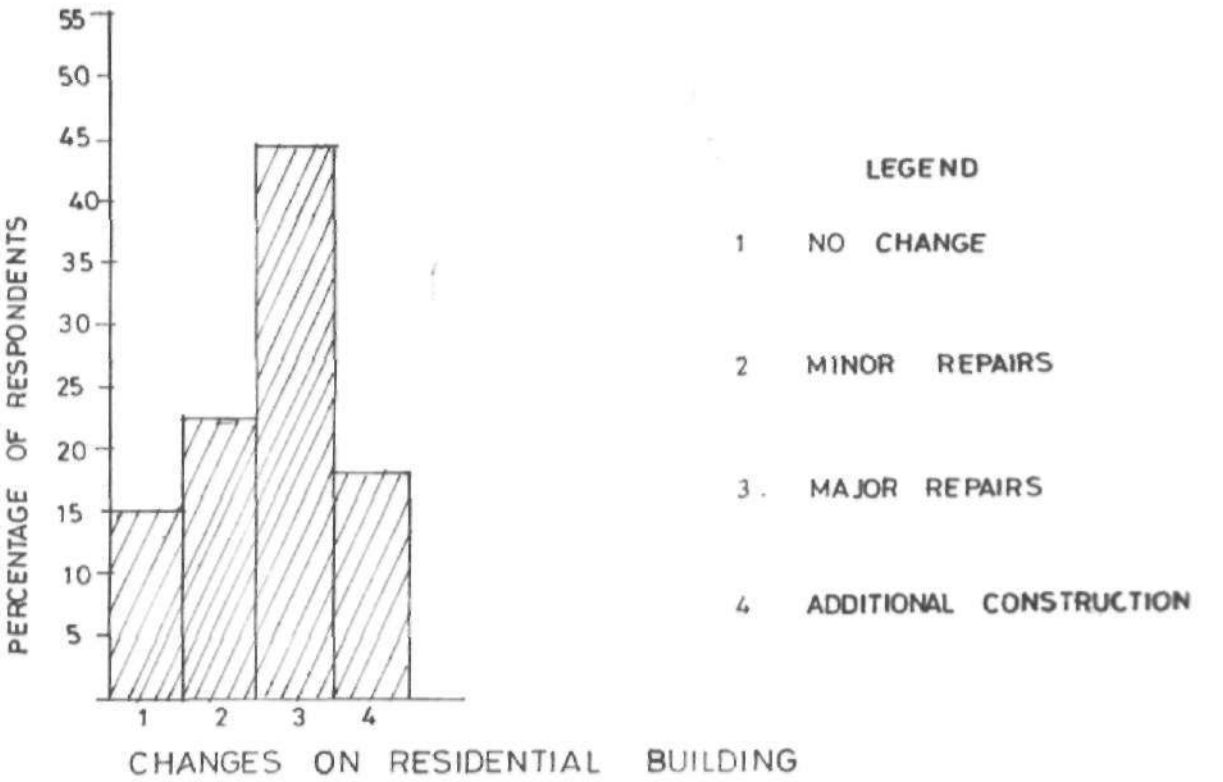
Prior to 1982 (pre-projects period) people depended mainly on animal manure and firewood ashes to restore fertility on their farmlands. This was due to the scarcity of inorganic fertilizer. Extension contact was also negligible due to lack of qualified staff. However the extension worker/farmer ratio has now improved from

1/4000 in 1982 to 1/900 by December 1987.

Fig. 4.2. gives the summary of the proportion of the house holders interviewed that came in to contact with extension and or purchased inputs in the year 1987.

From the figure (4.2), 45% and 30% of the sampled households have met separately and discussed farming practices and techniques with extension advisers (from KNARDA) and demonstration farmers respectively. Altogether 60% of the respondents have visited demonstration farms. Out of the 54% that visited KASCO stores 44% purchased inorganic fertilizers, 26% purchased agricultural chemicals, while 20% of them purchased improved variety of seeds. Only 10% and 2.5% bought or enjoyed the ox-plough and tractor hire purchase scheme respectively.

Table 4.1 shows farm input sales over the years. Through such extension services, the adoption of modern improved inputs and seeds, and new methods of production by the farmers substantial



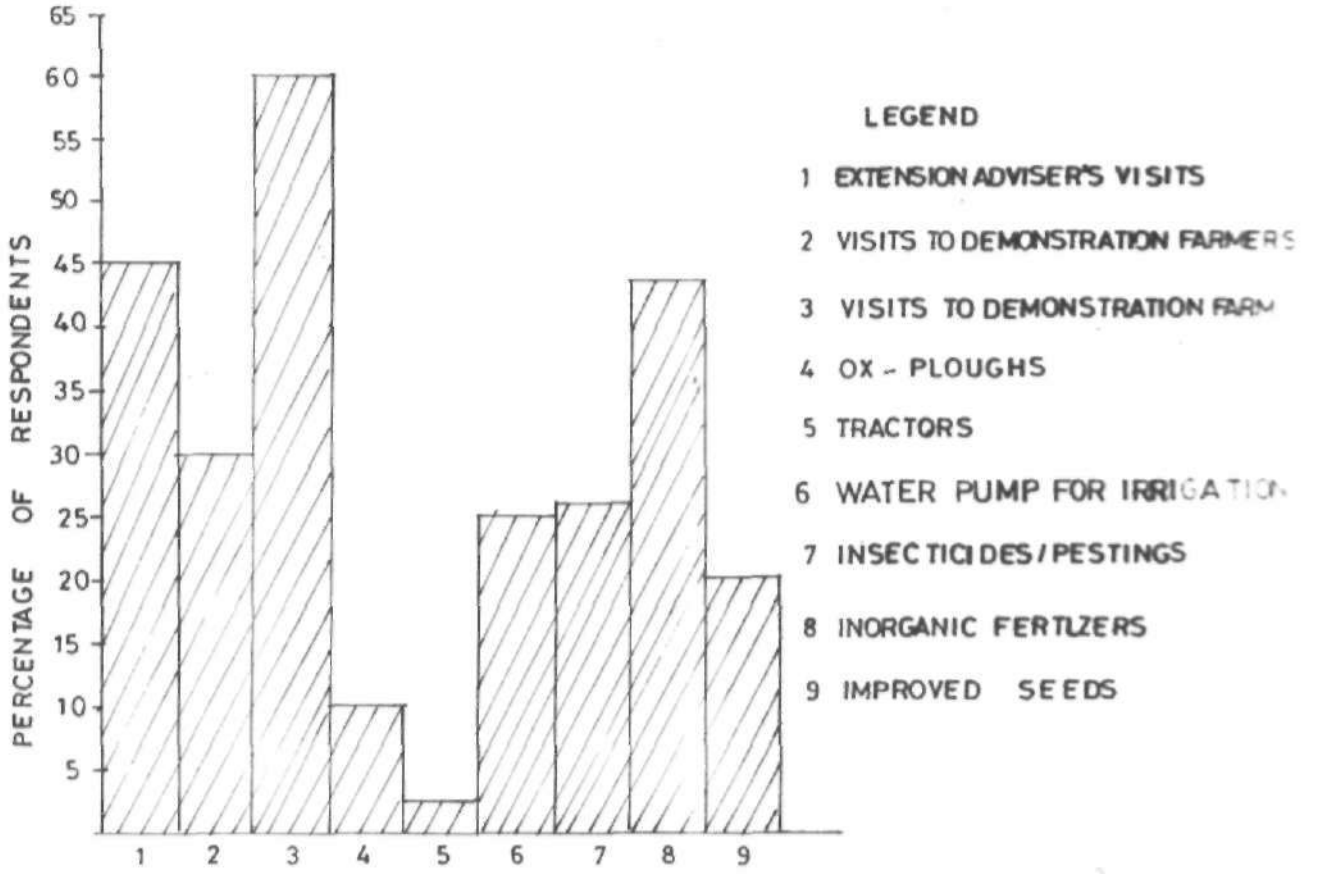


FIG. 4.2 INPACT THROUGH EXTENSION AND INPUT SALES

Source: FieldWork.

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Table 4.1.

Farm Input Sales in (BKLG) OvertThe Years

Input	1981	1982	1983	1984	1985	1986	1987 Tota
Fertilizer (tons)	5000	7000	5500	7945	5404	8138	8210
Cereal Seeds (tons)	-	10.0	18.0	36.4	36.0	36.5	37.2
Vegetable Seeds) (sachets)	-	11000	19266	23951	34561	57011	55020
Agrochemicals (tons)	-	0.3	1.8	1.8	7.5	7.0	8.2
Equipments (Naira)	-	18300	105100	137678	60783	1355-680	1201-550

Equipments include Pumps, Ploughs, Sprayers, Grinders Generators etc.

Source: KNARDA, Birnin Kudu ZMU (1988)

Increases in crop yields have been recorded as (see table 4.2) shown below. Hence average income per farmer has increased from ₦102 in 1981 to ₦400 by December 1987.

Table 4.2.

Crop Production in BKLG (1000 Metric Tons)

CROP	YEAR						
	1981	1982	1983	1984	1985	1986	1987
Sorghum	78.4	90.7	68.7	79.0	120.0	133.0	145.0
Millet	54.4	90.6	79.7	87.6	100.0	100.8	105.0
Maize	-	-	-	-	17.1	42.4	50.3
Cowpea	14.9	20.0	38.8	42.6	40.0	10.5	22.6
Groundnut	14.3	24.7	34.0	35.7	3.0	49.2	51.5
Rice	-	-	-	71.0	112.0	220.0	215.0
Cassava	2.4	5.5	1.6	1.9	1.7	2.5	1.9

Source: KNARDA, Birnin Kudu Zone (1988)

(b) Impact Through Credit Facilities:

Credit Schemes were initiated with the onset of KNARDA project. They however operated on a small scale using limited funds. KNARDA promoted the following:

1. Work bulls and hammer mills were provided to farmer groups on Credit.
2. Cattle fattening scheme.
3. Tractor hire purchase scheme.

Seven farmer groups were initiated and develped to undertake various agricultural projects. The initial target was to develop 20 farmer groups. The tractor hire puchase scheme started in 1982. Thirty tractors with ridgers, ploughs, harrows and trailers have so far been distributed. Unfortunately however only few people (2.5%) benefitted from these high technology credit facilities. Two factors were responsible for this shortcoming. In the first place there was limitation in the funds earmarked for the scheme, and secondly the tractors were costly and possibly not the best implements to be used. The money that was used to buy them could have been used to purchase simple and less costly farm implements for distribution to the farmers. This was the only way through which the maximum number of beneficiaries could

be involved in the credit scheme.

(c) Impact Through Employment Opportunities:

Prior to the project there were only about 70 staff directly employed in the agricultural and rural development sector for the whole BKLG. But now there is a staff strength of 612 directly employed by the project. The breakdown is as follows:

Table 4.3.

KNARDA Staff Strength by Departments.

Department	No of Staff
Administration and Accounts	49
Agricultural Extension	261
Land Use Planning	10
Community Development	5
Evaluation	36
Training and Media	25
Engineering	226
Total	612

Source: KNARDA, Birnin Kudu Zone (1988).

Figures for indirect and induced employment are not available. These are mainly people employed in the building industry including bricklayers, masons, painters, contractors etc. There are

also vendors of foods,drinks, cigarrettes etc. who serve the workers especially on project sites. Considering the multiplier effect of such services the number of people involved may be quite large.

4.2.1.2. Socio-Economic Impact:

These include impact through activities of cooperative societies and impact through the consumption of luxury goods as follows:

(a) Impact through activities of Cooperative Societies:

With the inception of KNARDA project seven cooperative farmer groups were established with a view to creating viable and active agricultural cooperative societies. A market information service involving the monitoring of retail and wholesale market prices of five selected commodities in some selected markets is sponsored and broadcast on radio Kano. This is to assist farmers know where to take their produce for fair prices (see fig. 4.3). The effectiveness of the service has not been fully assessed.

(b) Impact Through Consumption of Luxurious Household Goods:

Responses on changes in the quality and quantity of household goods consumed were recorded.

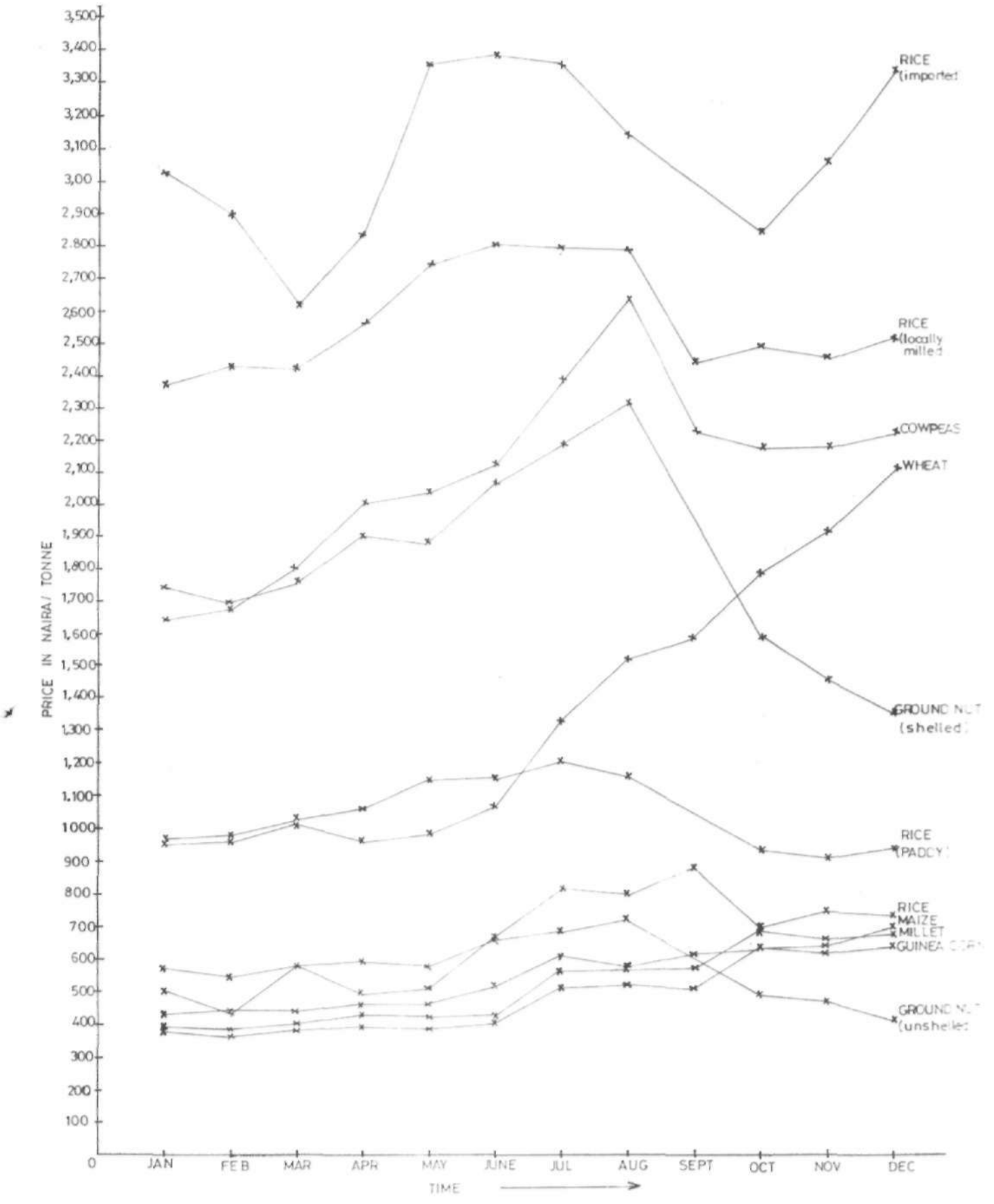


FIG. 4,3 RETAIL MARKET PRICE TRENDS FOR SOME COMMODITIES IN KANO STATE MARKET IN

Source: Adopted from KNARDA.

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After the commencement of the project, 62% of sampled households have recorded improvement in the food they eat, while 50% of the households have recorded changes positively in terms of clothing. However only 45% were able to secure new household goods. Others indicated no change at all. With increased cash flow people would have extra money to spend on goods that were previously considered to be luxurious.

4.2.1.3. Physical Impact:

These include impact on housing layout and building material used, and also impact through engineering services and infrastructure.

(a) Impact on Housing Layout and Building Material Used:

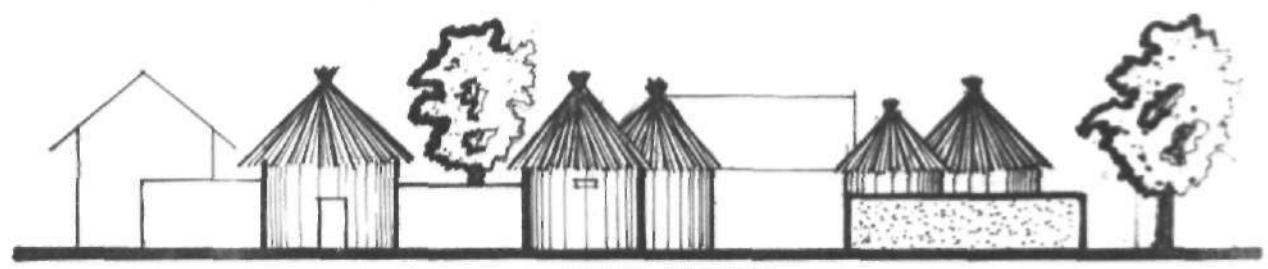
Before the inception of the project (1982), housing form and structure were mainly traditional. Round huts with thatch roofing predominated the residential scape within the rural settlements (fig. 4.4.). The walls were made either with grass mats, Zana, or Corn Stalks, Kara, usually supported with rope and sticks for strength against the winds. however with increasing purchasing power due to higher incomes earned by the farmers, certain changes are coming up with



FLOOR PLAN

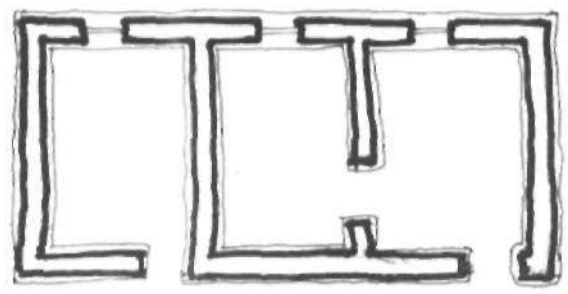


FRONT ELEVATION

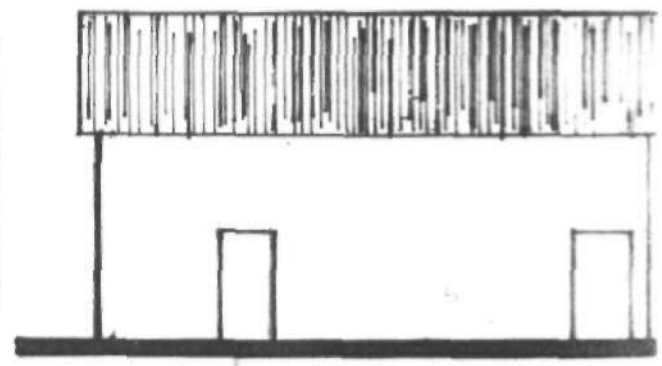


STREET ELEVATION

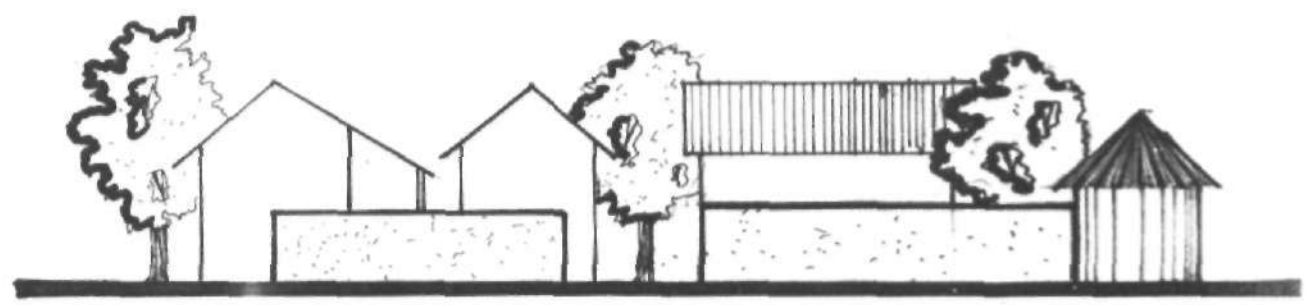
HOUSING CONDITION BEFORE KNARDA PROJECT



FLOOR PLAN



FRONT ELEVATION



STREET ELEVATION

FIG 4.4 HOUSING CONDITION AFTER KNARDA PROJECT

Source: Field Work.

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modern practices replacing the traditional ones. More people are changing from the roundhuts to rectangular buildings with regular floor plans (fig. 4.4.2). Walls and roofs are made of more durable materials. There is also an increase in the use of cement for plastering and corrugated iron sheets for roofing.

Out of the housholds interviewed, 22.5% and 44.5% have effected minor and major repairs on their houses respectively. While 18% of the households have made additional construction in their houses, 15% have indicated no change at all. In this survey, minor repairs comprise of routine maintenance associated with the buildings, major repairs on the other hand relate to partial reconstruction of buildings whereby the walls, roofing or the foundation may be affected; while additional construction refers to increase in the number of liveable rooms or sub-division of compounds to create apartments for young couples.

(b) Impact Through Engineering Services and Infrastructure:

These include feeder roads, boreholes, wash bores, tube wells and open wells.

Feeder Roads:

Before the project all feeder roads were earth surfaced. However with the inception of KNARDA 107.5km of laterite roads have been constructed (table 4.4). Thus road density in BKLG has increased from 0.08km/km^2 in 1981 to 0.11km/km^2 by December 1987.

Table 4.4.

Feeder Roads Completed and Commissioned KNARDA in BKLG:

FROM	TO	LENGTH (km)
Zandam ta Gabas	Jikas	3.0
Jikas	Maruta	8.0
Maruta	Tsanyarwa	12.0
Sara	Gantsa	40.0
Karanjau	Yayarin Tukur	5.0
Sagu	Gwadayi	5.5
Kafin Gana	Yarma	20.0
Total		107.5

Source: KNARDA, Birnin Kudu Zone (1988)

Such feeder roads provided effective transportation between villages at the sametime providing linkages to main roads. The roads also serve the following:

1. Enhanced marketing of agricultural produce.

2. Increased Social and Economic Interactions.

3. Improved People's Standard of Living Through Innovation diffusion.

4. Helped solve some of the transportation problems of affected areas especially during the rainy season.

5. Opened up rural areas as an incentive for rapid rural development.

Other infrastructural facilities provided by KNARDA in BKLG include three training centres, ten KASCO Sotes, one seed processing plant, 65 boreholes, 258 washbores, 105 tubewells and 31 open wells have been rehabilitated. After having assessed the economic, social and physical impact of the activities of KNARDA in BKLG from the positive perspective, it will be worthwhile to examine the negative impact as well.

4.2.1.4. Negative Impact of the Activities of KNARDA:

The negative impact may also be either economic, social or physical as follows:

Economically, the benefit derived through the activities of KNARDA in BKLG is poorly spread among the farmers. For instance the introduced high yielding variety of crops require a lot of

fertilizers and pesticides which are costly beyond the reach of the ordinary farmers. Therefore the high yielding varieties were only adopted by those farmers who can afford to buy such inputs in large quantities. Consequently a lion share of the wealth is generated and owned by the'demonstration farmers' in the area.

Socially, the people are made to see the government as the only agent of development. Their initiatives and actions have not been fully mobilised and integrated into the development process.

Physically, the sinking of boreholes has a negative effect on the traditional wells, which in most cases run dry when the water table is low; or they may be under utilised if not completely abandoned. With increasing use of fertilizers, there are possible dangers of chemical pollution in rivers and streams. Other negative effects may also be connected with uneconomic use of land in which fertile farm lands are used for feeder road construction. The feeder roads can hardly stand the test of time if they remain untarred, with poor maintainance it can further degenerate.

4.2.2. Problems of KNARDA in Achieving its Set Objectives:

KNARDA was established by law and edict on January 29, 1982. The authority was appointed as the executive committee for the integrated development of the rural areas in the state on behalf of the government. What the law did not spell out were the relationships between the authority and ministries and agencies charged with the same or similar functions. "These relationships were left to be established as the project proceeded" project MTR (1984). The situation gives way for duplication of efforts in the functions of ministries and parastatals as shown below. Although duplication of efforts through the multiplicity of agencies may not be a problem as such, the real problem is lack of coordination.

Table 4.5.

Duplication of Efforts Between Ministries, Parastals and Other Agencies:

FUNCTIONS	MINSTRY/PARASTATAL/AGENCY			
Rural feeder roads	LGC	MSCD	KNARDA	DFRRI
Water Supply	LGC	MSCD	KNARDA	DFRRI WRECA
Extension Services		MARD	KNARDA	DFRRI
Credit Facilities		MCIC	KNARDA	DLE
Rural Housing		HC	DFRRI	
Model Villages, Community Centres				
Mobilisation for Self Help etc.		MSCD	MAMSER	
Rural Electrification		R.E.B.	NEPA	

Source: Field workd (1987)

Other problems of the authority in acheiving its set objectives include finance, manpower, transport, staff housing, management, procurement of equipment and spare parts and the geology of the area as it affects the success of the boreholes programme. The failure of NARDA to identify local human and material resources for the development of BKLG constitute another problem requiring consideration.

The project itself was initially conceived and designed by the Kano State government in consultation with MASDAR consultants, supported by the FGN and the World Bank. It was however noted that even after the inception of the project, the decision making process was not decentralised enough to involve the local people adequately; since the major policy and operational decisions governing the day to day operations of the KNARDA were controlled and dominated by the State headquarter based PMU. Rural development programmes concieved by foreign consultants and expected to be implemented by the local people can hardly be realised according to the plan. They only manage to reach a limited percentage of the rural population. They may also fail to generate the enthusiasm and necessary support for their continuity and maintenance by the local people.

Through the underutilization of local resources and talents, KNARDA's programmes tend to undermine the capacity for local self help and action, and thereby creating a dependency complex in which the people come to see and rely on the government as the only agent of development. There are also other issues of higher costs of the resources, manpower and supervisory logistics required in the design and implementation of the programmes. Finally there is need for KNARDA to improve on the distribution of farm inputs, extenskon services and credit facilities in order to achieve the desired goals.

4.2.3. Project Appraisal:

Although KNARDA was intended to achieve two things simultaneously, however it only succeeded in achieving one i.e. agricultural development but not rural development. The problem can be traced to the stages of conception and implementation of its programmes as contained in the set aims and objectives of the project, which view rural development from a narrow perspective. There is too much emphasis on agriculture. For instance the aims of KNARDA specifically stated that the project "aimed at increasing the standard of living of farming families".[2] This was at the

expense of other non-farming rural families, and that was why other employment opportunities including animal husbandary, handicrafts, cottage and small scale industries etc. were neglected as shown in the set objectives of the authority (section 4.1.2).

As an integrated rural development strategy, the KNARDA is expected to come up with clearly defined objectives to cover all facets of rural development in an integrated manner. All ambiguities should be wiped out, for instance one of the objectives stated that KNARDA is "to bring about rapid rural development;" but as to how this can be achieved is not specifically indicated. For KNARDA to cover this and other shortfalls the following additional objectives were suggested.

1. To achieve optimal utilisation of available resources.
2. To encourage communities to embark on self help projects.
3. To help raise the level of employment and incomes by promoting local crafts, cottage and small scale industries etc.
4. To encourage popular participation in the development process.
5. To make rural areas accessible and habitable through the provision of physical and social infrastructural facilities.
6. To integrate and coordinate all rural development efforts in BKLG by all the various agencies concerned.

The main activities which need to be in KNARDA's domain will consist of inputs needed for the development of various sectors in BKLG as follows:

1. Occupation:

   (a) Primary Occupation:

   Agricultural development to include the planning of activities in the input system, the technical support system and the product outlet system.

   (b) Secondary Occupation:

   Rural/Cottage/small scale industries these include agro-base industries like food processing mills, preservation and storage, grinding and husking, sugar, soap and oil making, timber and carpentry, leather tanning and cloth weaving etc.

   Other industries may be agroallied like village crafts, pottery, basket, tools and building materials making etc.

   (c) Tertiary Occupation:

   Service activities. These include commercial services like hawking, retailing and wholesale. Other activities include repairs, maintenance, entertainment etc.

2. Education - Primary, Secondary, Vocational and adult education etc.

3. Health care

4. Mass Communication and Public Enlightenment.

5. Cultural Recreation and Tourism.

6. Rural Housing.

7. Transport- feeder road construction and upgrading.

8. Utilities and Services - Water, Electricity, Postal etc.

9. Extension Services.

10. Market and Credit cooperatives.

11. Rural Works Programme and special employment schemes.

It was noted however that no agency can deliver this kind of comprehensive package to achieve the development of any rural area single-handedly. This therefore made it necessary to bring other formal and informal development agencies together for role identification in the development process. The KNARDA will then be responsible for coordinating, monitoring and providing other necessary inputs in line with its set objectives for agricultural and rural development in BKLG. It will aim at integrating them to ensure a linkage development that will be mutually supportive and minimise inter-agency conflicts.

INFERENCES:

Based on the issues raised in the preceding Chapters, the following inferences can be drawn.

1. The colonial development plan failed to develop the rural areas because it was more concerned with the procurement of raw materials

to improve the British economy.

2. The first two National Development Plans neglected development in spatial terms. Emphasis was on sectoral planning at the expense of physical and environmental planning. Consequently the farm settlements and the school leavers farm settlement schemes failed to develop the rural areas.

3. Subsequent projects and programmes are viewed as discrete entities with no conceptual planning framework, as such the RBDAs, DFRRI, ADFS, GR, OFN etc. failed to meet their set objectives for lack of inter sectoral coordination.

4. In all these grassroot participation was either absent or very negligible.

5. The reviewed physical planning strategies could be vital in rural development and planning in Nigeria.

6. Although four hierarchies of settlements were identified in the study area, however they were not fully equipped with UFS to perform their functions.

7. The existing distribution of employment opportunities, social amenities and infrastructural facilities is inadequate.

8. All development efforts in BKLG by formal and informal organisations are carried out on ad-hoc basis.

9. There are vast human and material resources waiting to be mobilised and utilised in conjunction with government assistance for the development of the area.

10. The Kano State government established KNARDA in 1982 with a view to integrating its rural development efforts which were spread over several agencies.

11. In the conception and implementation of KNARDA's programmes, emphasis was on agriculture even though it was intended to achieve both agricultural and rural development simultaneously.

12. For its non-involvement of the people in the conception and implementation of programmes and the underutilisation of local material resources, the economic, social and physical impact of KNARDA in BKLG are inadequate to justify its existence.

13. It was noted that no agency can achieve the development of any area single handedly, hence there is need to bring other development agencies for role identification and inter-

sectoral coordination. The next chapter presents the planning requirements and criteria for BKLG based on which development proposals are made.

CHAPTER FIVE

5.0.0. PLANNING REQUIREMENT, CRITERIA AND INTEGRATED DEVELOPMENT PROPOSALS FOR BKLG.

5.1.0. Development Planning Requirement And Criteria:

In this chapter, some planning requirements and criteria are established for making integrated development proposals based on the findings and inferences derived from the preceeding chapters. The need to guide the spatial reorganisation and socio-economic development of BKLG through the utilisation of human, material resources and government assistance in an integrated and well coordinated manner made it necessary to propose the following general planning guidelines. These include criteria for proposed road pattern and network, criteria for proposed settlement, hierarchy, criteria for the distribution of UFS, criteria for the location of proposed cottage/small scale industries, criteria for the development of water resources and criteria for the development of cultural recreation and tourism.

5.1.1. Criteria For Proposed Road Pattern And Network:

To improve the level of accessibility and development in BKLG, it is necessary to propose the following criteria for road planning and development.

1. Road network to enhance the existing relationship between the area and other neighbouring areas.

2. Road network to encourage vertical and horizontal linkages between various hierarchies of settlements within the area in order to facilitate smooth flow of people, goods and information.

3. Road hierarchy to link settlements of similar hierarch as much as possible.

4. Roads to be aligned in such a way that difficult terrains are avoided in order to save cost and ensure safety.

5. 5. Local human and material resources are to be mobilised and utilised in addition to government assistance for the construction works.

6. Existing development and KNARDA's proposals to be taken into consideration while applying these criteria.

5.1.2. Criteria For Proposed Settlement Hierarchy:

There is a need to establish hierarcny of settlements to enhance the proper utilisation of amenities to be provided. To achieve this the following criteria are proposed.

1. The population size of individual settlements should be considered, this is because if facilities like electricity, pipe borne water, school or clinic are provided for a small community, there is bound to be underutilization. This will be of economic waste to the government and the people. In a small community (of 500 people) a borehold will be adequate instead of pipe borne water.

2. Services provided by the settlement to its population and other neighbouring areas (i.e. complementary regions). Existing services and facilities in any settlement help to place it in its order of hierarchy. Such existing services and facilities may include drinking water supplies, schools, clinics or hospitals, post offices, police stations, markets, churches and mosques etc.

3. Development requirements and potentials in terms of needs, resource potentials and constraints. These may include existing natural

endowments, existing economic activities etc. In such growth potential areas with the advent of industrial activity the economic base can assume a multiplier and cumulative effect thereby leading to faster growth and development.

4. Location/accessibility of each settlement which will determine distances and direction of interactions between various settlements. In rural areas if settlements are nucleated, the provision of amenities become easier as the threshold population is concentrated in one place thereby ensuring proper utilization and the ease with which the facility is obtained. But where settlements are dispersed the problem of distance and location will have to be solved.

5.1.3. Criteria For The Distribution of Utilities.

In line with one of KNARDA's objectives to improve the standard of living of the people the following criteria are proposed for distribution of UFS in BKIG.

1. The distribution of proposed UFS is to take into consideration the existing UFS.

2. Criteria of population threshold for the provision of these UFS has to be established while making the proposals.

3. The distribution of UFS has to reflect the hierarchy of settlements.

4. Decentralisation of physical and social infrastructural facilities to be encouraged in the distribution process.

5. Increasing the quality of life of the people.

6. Criteria of equity through maintaining a balance between the various hierarchies of settlements.

5.1.4. Criteria For the Location of Proposed Cottage, Agroprocessing, Small Scale Industries:

For "rapid rural development" there is a need to set up and maintain existing cottage, agroprocessing and small scale industries to harness locally obtained labour and material inputs as much as possible. The following criteria are proposed for the development of industries.

1. The type of industry must be agro-based, agro processing and small scale in nature to enable the utilization of local agricultural produce to encourage the farmers to produce more.

2. The type of industry is to be less capital intensive but labour intensive to provice employment opportunities.

3. The hierarchy of settlement is to be considered in the location of industries.

4. Criteria of availability of raw material in the locality to maximise profit and reduce costs of transportation.

5. Criteria of means of transportation if raw materials have to be acquired from another area and to deliver processed goods to the markets.

5.1.5. Criteria For The Development Of Water Resources:

There is need to improve irrigation through the development of surface and subsurface water resources within BKLG with a view to increasing employment opportunities and income especially during the dry season period. In this regard the following criteria are proposed.

1. Criteria for irrigation project is the proximity of developable water resources to agricultural land.

2. Where dams are proposed the criteria of distance from the settlements is to be employed to avoid flooding during the rainy season. Where there are settlements close to the dam, resettlement schemes can be planned.

3. Dams may be sited where they can be multi-purpose i.e. supplying water for irrigation, for domestic use and for fish farming.

4. Where fish ponds are to be established it has to be near a settlement that has a genuine interest in fishing.

5.1.6. Criteria for Development Of Recreation/ Tourism:

There are numerous gains to be achieved in the provision of recreational facilities. It provides a means of relaxation after hardwork. Such places may also serve as meeting points for social interaction and it can as well serve as a means of generating revenue to the government. In the development of recreational facilities, the following criteria are proposed:

1. Availability of developable resources/ skills for recreation/tourism.

2. Availability of open spaces to serve as village squares or arena.

2. Criteria of required population threshold as may be appropriate to the type of recreation.

5.2.0. Integrated Rural Development Proposals For BKLG:

From what is obtained in the analysis of the existing situation in the study area vis-a-vis the activities of KNARDA and other agencies, and using the proposed planning requirements and criteria together with basic principles of some

rural development strategies reviewed and evaluated in chapter two; development proposals can now be put forward for implementation in BKLG. These include proposals on settlement hierarchy, proposed road network and hierarchy, proposals for the development of water resources, proposals for the development of cultural recreation and tourism, proposals for the development of cottage, agroprocessing and other small scale industries and proposals for the location and distribution of UFS.

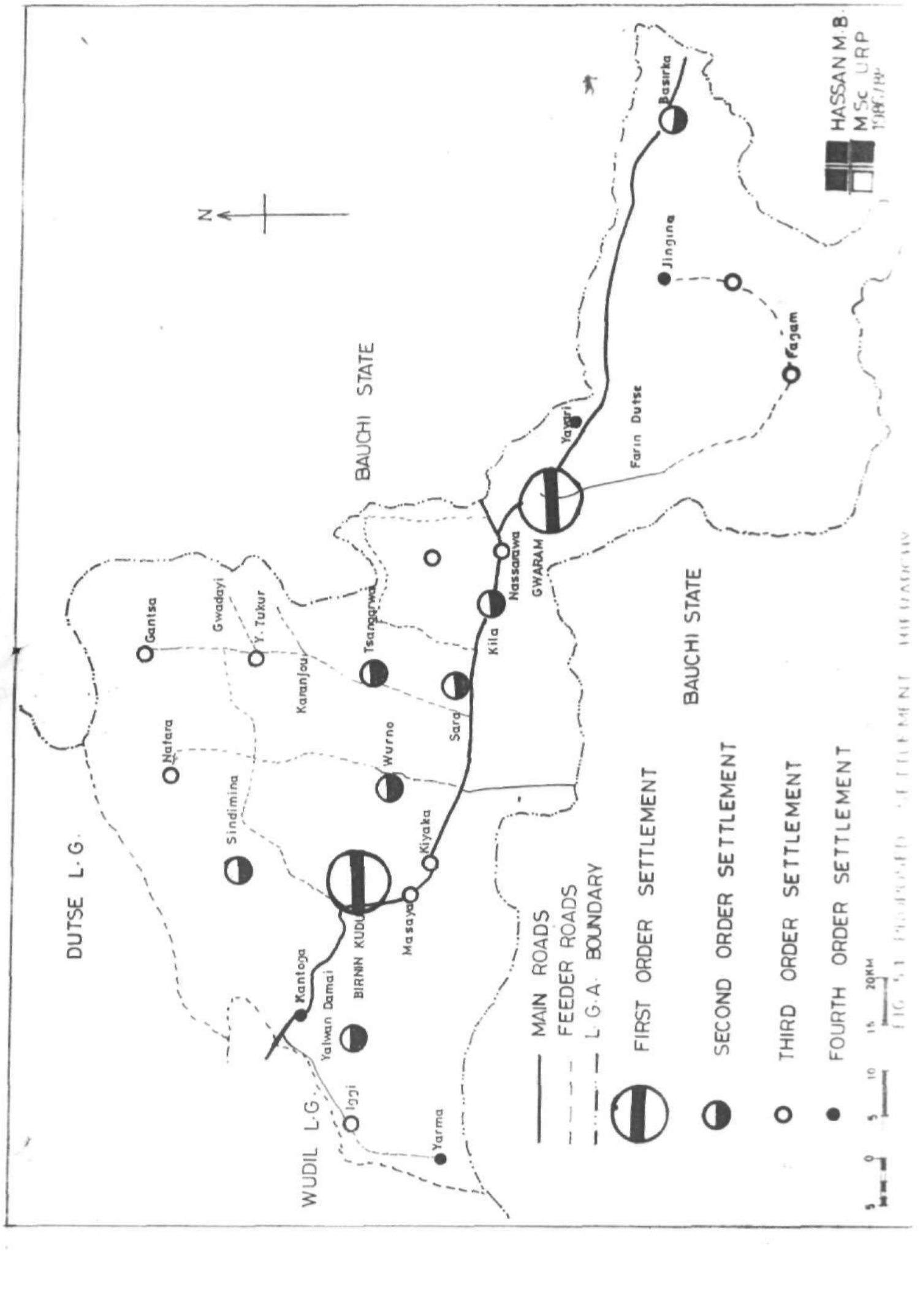
It should be noted however that whenever the application of planning standards will be unrealistic basic principles and standards can be adopted (proposed) to suit the reality of circumstances.

5.2.1. Proposed Settlement Hierarchy:

Settlement hierarchy within BKLG is to remain as it is i.e. four (fig. 5.1). This is to ensure a meaningful and functional interrelationship within and in between settlements of varying hierarchies.

5.2.1.1. First Order Settlements:

These consist of LGA/District headquarters including Birnin Kudu and Gwaram. Birnin Kudu town is to be well equipped with UFS to retain


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N
BAUCHI STATE
Basirka
Jingina
Yagari
Farin Dutse
Fajam
Nassarawa
GWARAM
Kila
Tsangarwa
Sarq
Karanjou
Gwadayi
Y. Tukur
Gantsa
Natara
Sindimina
Wurno
Kiyaka
Masaya
Kantoga
Yalwan Damai
BIRNIN KUDU
Iggi
Yarma
DUTSE L.G.
WUDIL L.G.
BAUCHI STATE
MAIN ROADS
FEEDER ROADS
L.G.A. BOUNDARY
FIRST ORDER SETTLEMENT
SECOND ORDER SETTLEMENT
THIRD ORDER SETTLEMENT
FOURTH ORDER SETTLEMENT
0 5 10 15 20KM

the administrative function of the LGA. It has a population of 16,786. It can serve other functions too. Gwaram is to be fully equipped with UFS to serve its function of being the commercial and district headquarter simultaneously. It (Gwaram) has a population of 19,369.

5.2.1.2. Second Order Settlements: (The major Rural Centres):

Included in this category are Sara, Basirka, Sundimina, Wurno, Kila, Yalwan Damai and Tsangarwa. They can all be equipped to serve their population and that of their complementary regions. Population size ranges from 6,020 (Tsangarwa) to 8,799 (Sara).

5.2.1.3. Third Order Settlements: (The Minor Rural Centres):

These include Fagam, Iggi, Yayarin Tukur, Nafara, Jikas, Gadama, Masaya, Gyako, Gantsa and Nassarawa. They will provide lower order services and goods to their population and those of neighbouring primary villages. Population of settlements in this group ranges from 2,310 (Gantsa) to 13,261 (Fagam). Although Fagam has a high population figure, however it is not adequately provided with all necessary utilities, services and facilities (see Appendix).

5.2.1.4. Fourth Order Settlements (Primary Villages)

The provision of UFS to the smaller settlements that do not have the required population threshold will lead to uneconomic use of scarce resources and waste. However since these primary villages are within a distance of two to three kilometres to the nearest higher order settlements it is envisaged that all available UFS in the former will be shared. Other lower order goods and services can be provided locally.

5.2.2. Proposals For The Development Of Water Resources:

The abundance of developable water resources is one of the development potentials highlighted in the study area (see fig. 3.2). Such water bodies can be dammed and utilised at appropriate locations for irrigation, domestic use and for fish farming. The potential sites include Gwaram, Ciyako, Yarma, Nafara and Birnin Kudu (see fig. 5.2).

5.2.3. Proposed Development of Cultural Recreation/Tourism:

The Dandali or village squares can be improved to provide cultural recreation through local dances, other related activities of local artists and

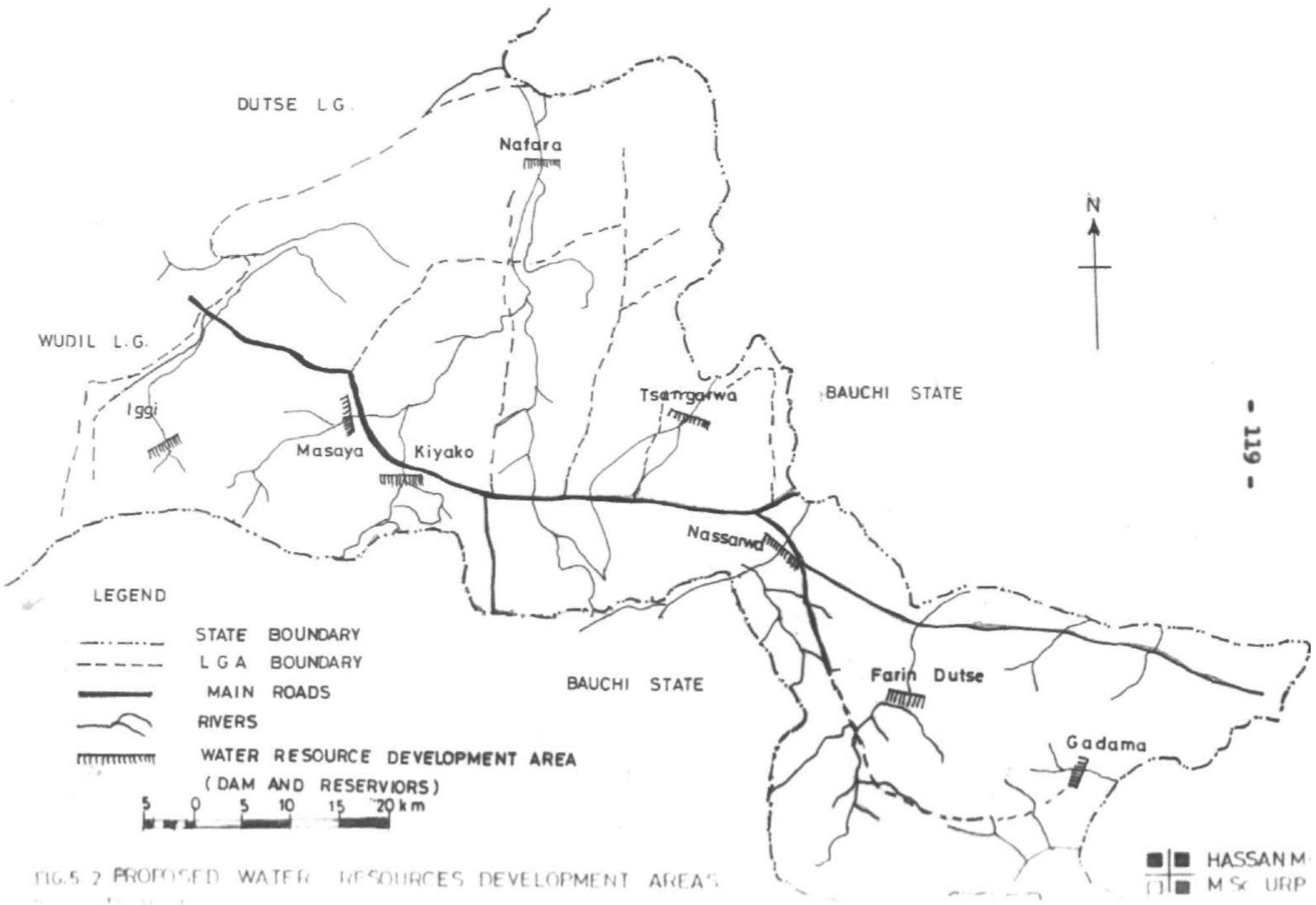


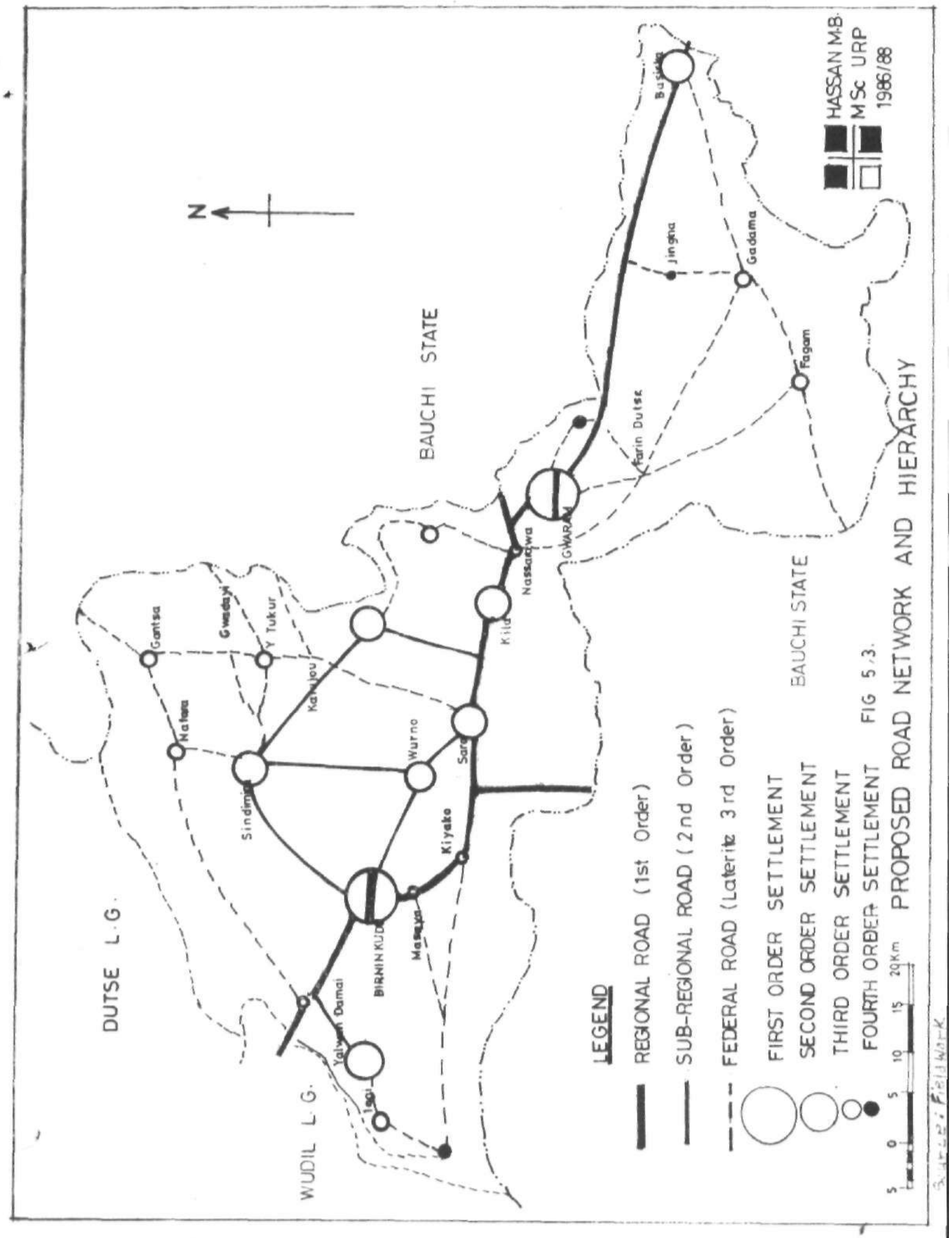
FIG.5.2 PROPOSED WATER RESOURCES DEVELOPMENT AREAS

drummers. There may also be wrestling, local boxing and the Fulani festivals. It can also be reorganised to provide recreational facilities for the youth. In addition to this wherever there are schools, playfields and courts are to be provided for students and for public use.

As for tourist attractions, the local craft industries can be encouraged and sustained not only to serve as tourist attractions but also to generate incomes. The site where Birnin Kudu rock paintings are located to be developed into a museum to serve the local government area. Other attractions for sports, recreation and tourism include the annual fishing festivals at Gwaram. Such activities can be more organised for leasure and revenue generation.

5.2.4. Proposed Road Network and Hierarchy:

Bearing in mind the existing inadequacy of road networks, KNARDA's road development proposals and the above proposed settlement hierarchies in the surveyed area; the following road hierarchies are proposed in order to facilitate proper and functional linkages within and outside the BKIG (see fig. 5.3.).


HASSAN M.B.
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N
BAUCHI STATE
DUTSE L.G.
WUDIL L.G.
Buskuri
Jinjina
Gadama
Fagam
Farin Dutse
Nassarawa
GWARAM
Ganjsa
Gwadaji
Y Tukur
Kafinjou
Natasa
Sindima
Wurno
Kiyako
Yalwan Damai
BIRNIN KUDU
Masaya
Kila
LEGEND
REGIONAL ROAD (1st Order)
SUB-REGIONAL ROAD (2nd Order)
FEDERAL ROAD (Laterite 3rd Order)
FIRST ORDER SETTLEMENT
SECOND ORDER SETTLEMENT
THIRD ORDER SETTLEMENT
FOURTH ORDER SETTLEMENT
0 5 10 15 20Km
BAUCHI STATE
FIG 5.3.
PROPOSED ROAD NETWORK

5.2.4.1. Primary or Regional Roads:

To link the first order settlements in BKLG. It is also to make them accessible to other neighbouring markets, sub-regions (LGAs) and planning regions (states). The surface must be tarred to provide all season transporation.

5.2.4.2. Sub-Regional Roads (Secondary Roads):

To link second order settlements with first order settlements. It may be tarred or laterite surfaced depending upon the availability of funds.

5.2.4.3. Feeder Roads:

They are to link the second with the third order settlements and both to be linked with primary villages. Laterite surface material is adequate for such roads. All stated hierarchy of roads and network are shown in figure 5.3. BKLG is at advantage with regards to road construction works due to its stable surface soils, the presence of granitic rocks and laterite material that can be easily harnessed.

5.2.5. Proposals For the Development of Industries:

Agro-based industries are to be established at suitable locations including all first order settlements, second order settlements and other

third order settlements like Ciyako, Yarma and Lafiya (fig. 5.4). Activities are to include processing, milling and husking of tomatoes, fruits and grains. Sources of non-farm income such as animal husbandary, poultry, pottery, wood and iron works, handicrafts and other cottage industries can be exploited for the benefit of the poor.

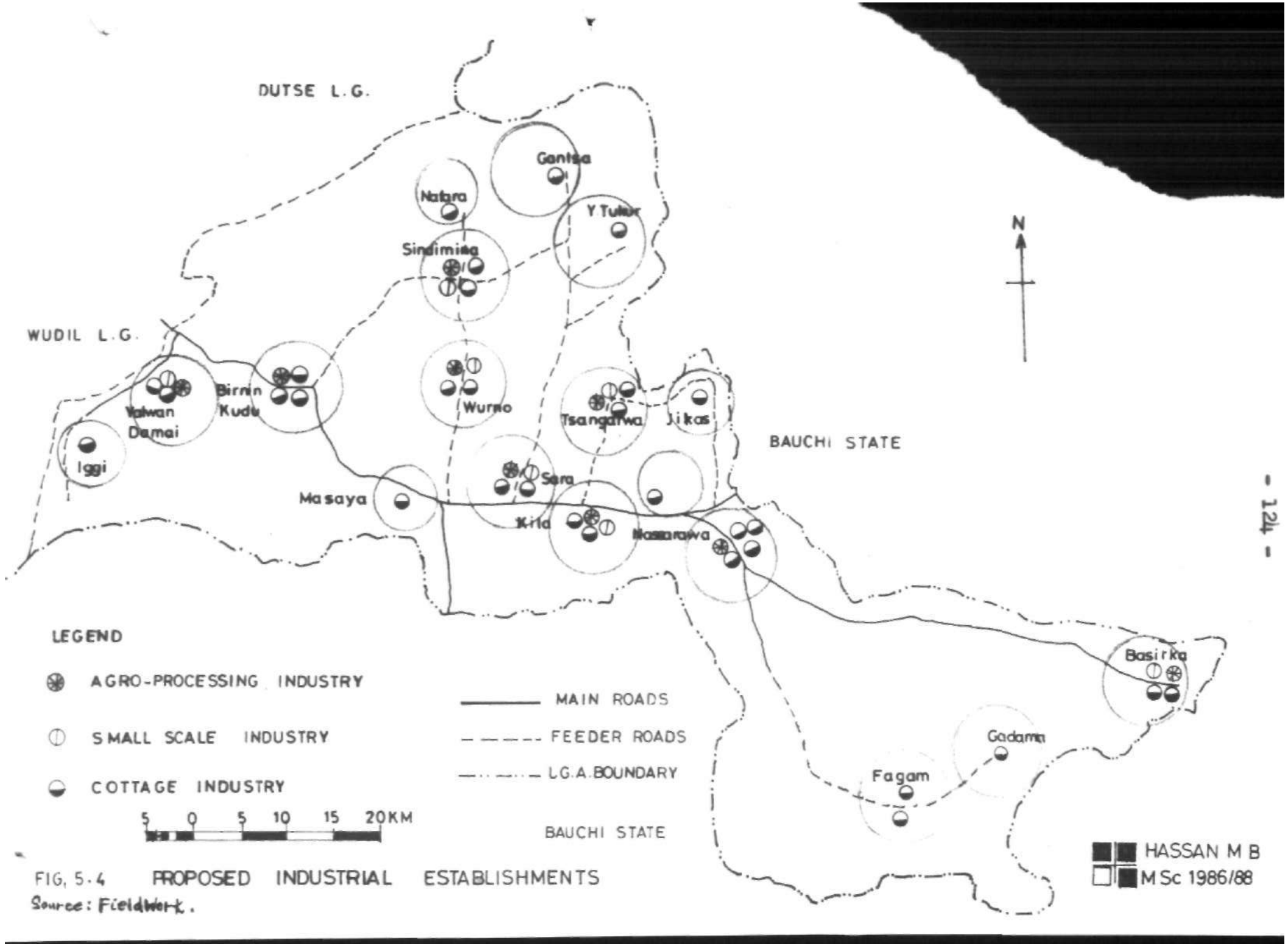
This can be achieved through the mobilisation of and utilisation of human (talents and skills) and material (locally obtained raw materials) resources earlier identified, supported by government loans, free management consultancy services and other necessary incentives (see p.33) to reach the majority of the investors.

5.2.6. Proposals for the Location and Distribution Of Utilities, Services And Facilities (UFS).

The existing location and distribution of UFS is taken into consideration while making these proposals.

Objectives of the proposals include the following:

1. To improve the quality and quantity of health and educational facilities.
2. To increase the number of markets and to create an effective means of marketing agricultural inputs and outputs.
3. To increase socio-cultural activities in the area.



FIG, 5.4 PROPOSED INDUSTRIAL ESTABLISHMENTS

Source: Fieldwork.

4. To provide basic utilities (including water, electricity etc) and services (postal, security etc) that will improve the quality of life of the people.

Other factors taken into consideration while making these proposals (i.e. location and distribution of UFS) include the population size and settlement functions in line with the hierarchical system of settlements as shown in sub-section 5.2.1. and figs. 5.5-5.9. To ensure proper utilization and easy accessibility to UFS to be provided there is need to apply planning standards while making the proposals. However, as it has been earlier indicated some basic principles and standards can be proposed to suit the reality of circumstances wherever the application of planning will be unrealistic. Bearing this in mind the total population requirements of UFS are determined as shown in the following tables. Planning Standards are quoted from the Bichi Master Plan prepared by URP Department A.B.U. Zaria.

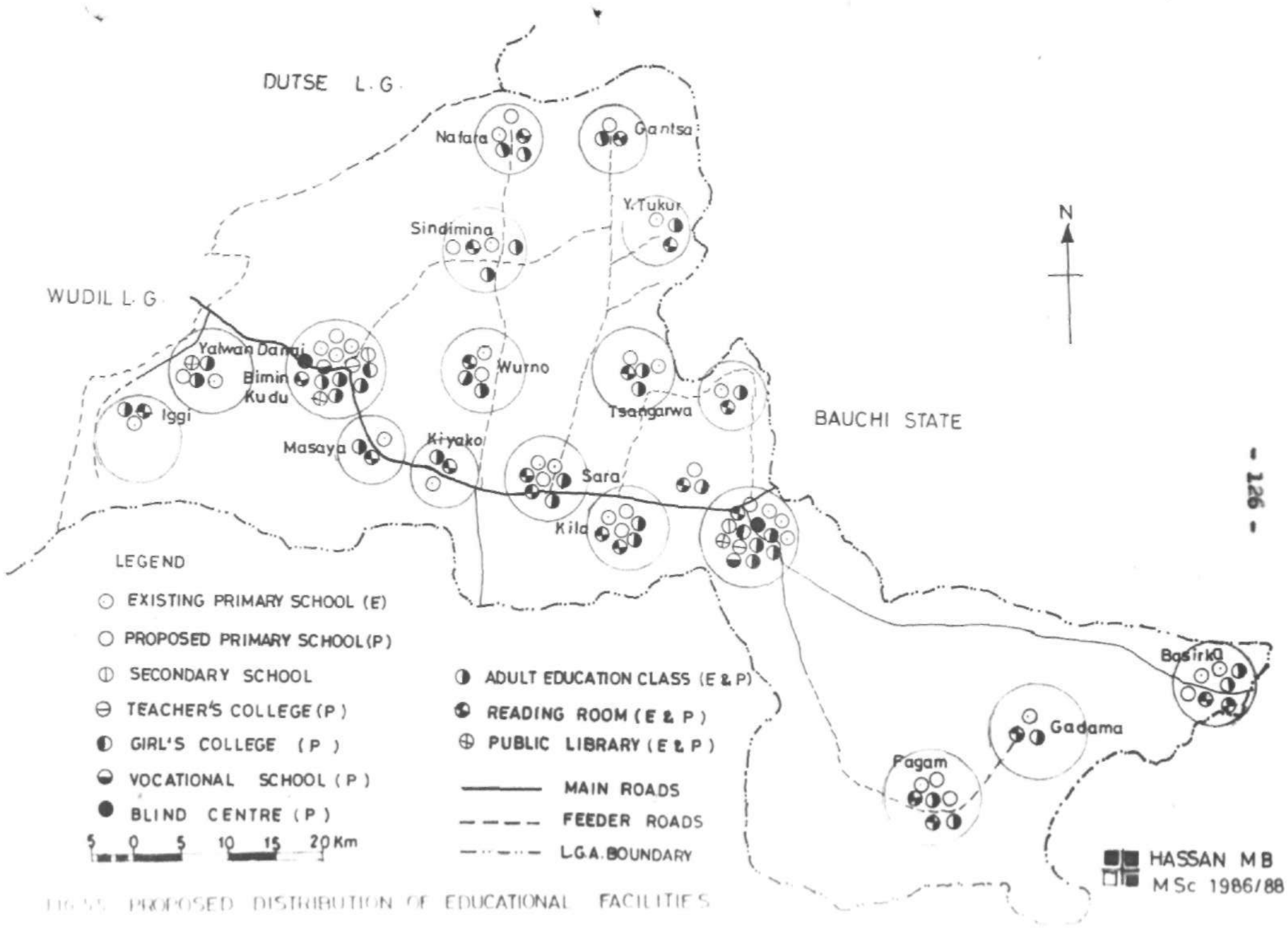
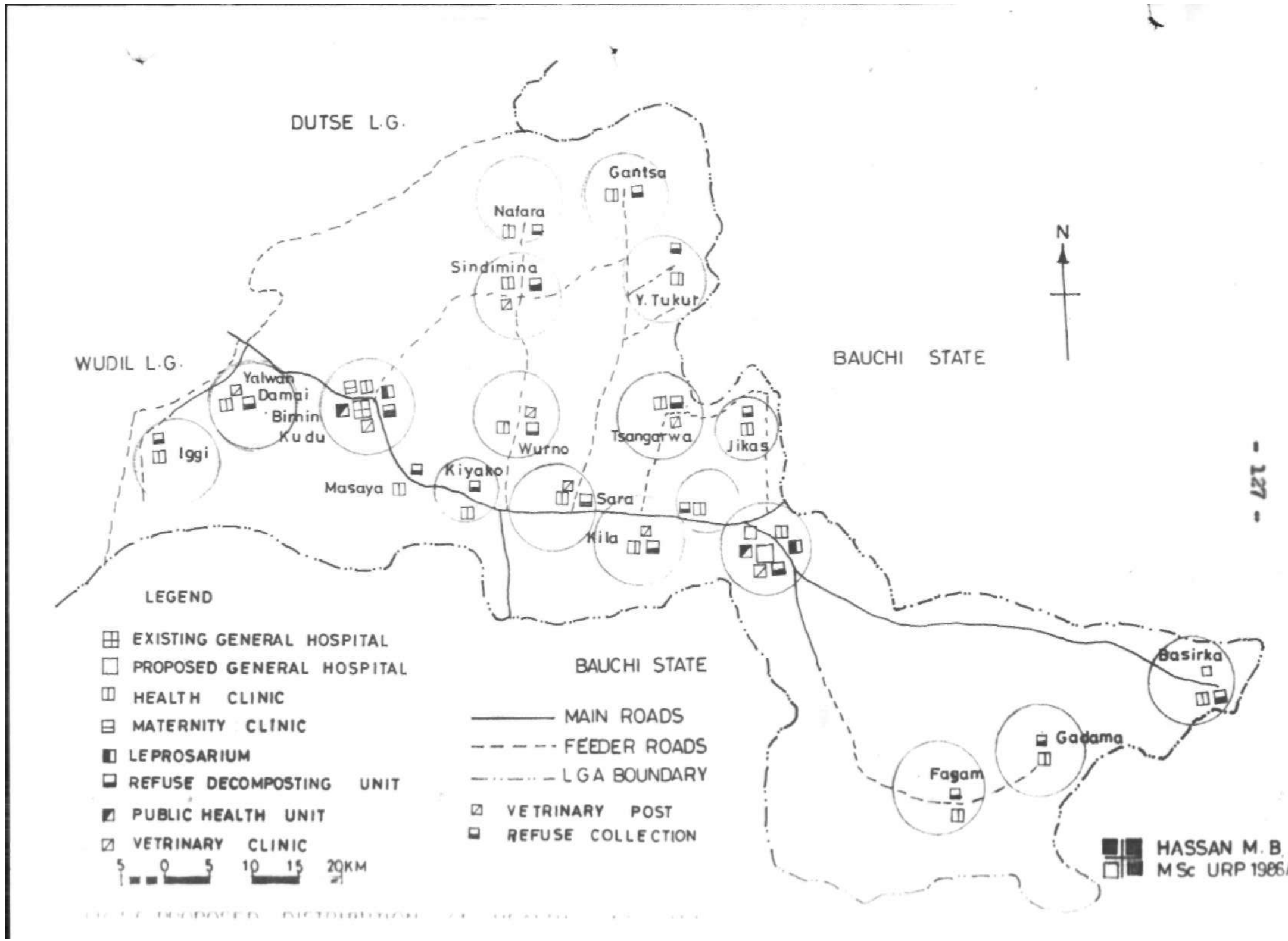


FIG 5.5 PROPOSED DISTRIBUTION OF EDUCATIONAL FACILITIES


DUTSE L.G.
WUDIL L.G.
BAUCHI STATE
N
Gantsa
Nafara
Sindimina
Y. Tukur
Yalwan Dampai
Birnin Kudu
Iggi
Wurno
Tsangarwa
Jikas
Masaya
Kiyako
Sara
Kila
Basirka
Gadama
Fagam
LEGEND
EXISTING GENERAL HOSPITAL
PROPOSED GENERAL HOSPITAL
HEALTH CLINIC
MATERNITY CLINIC
LEPROSARIUM
REFUSE DECOMPOSTING UNIT
PUBLIC HEALTH UNIT
VETRINARY CLINIC
5 0 5 10 15 20KM
BAUCHI STATE
MAIN ROADS
FEEDER ROADS
L G A BOUNDARY
VETRINARY POST
REFUSE COLLECTION
HASSAN M.B.
M Sc URP 1986/8

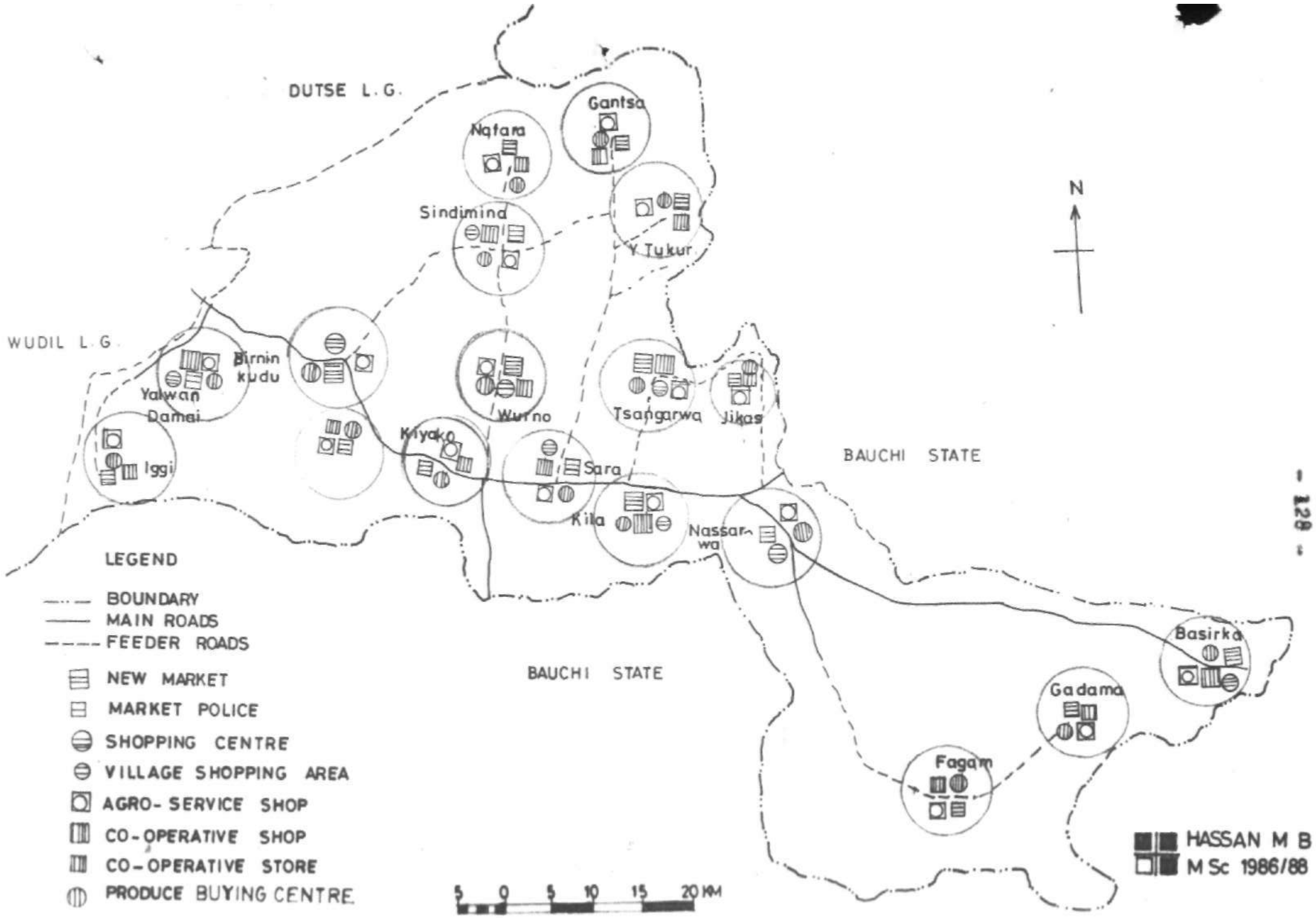
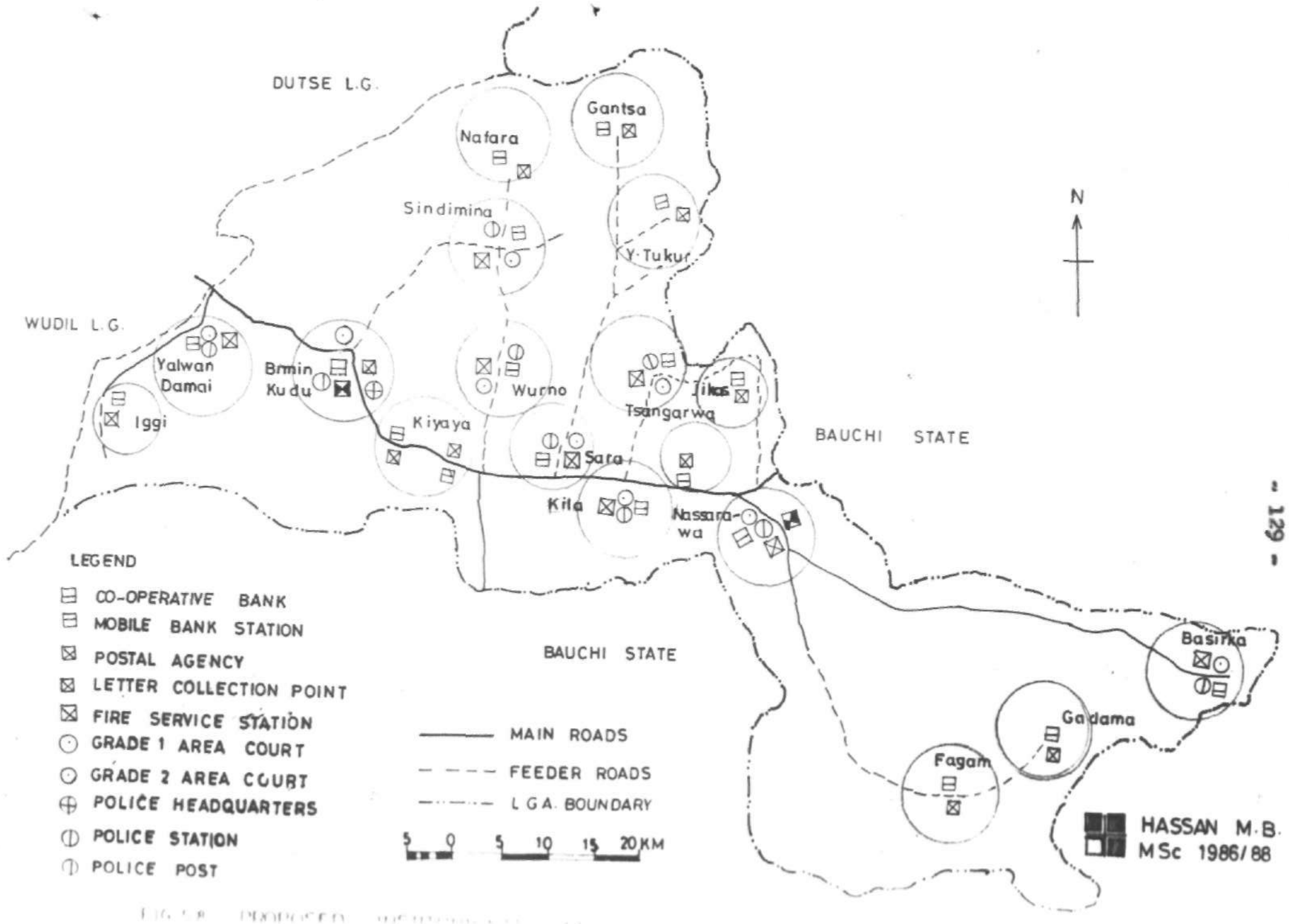


FIG 5.2 PROPOSED MARKETS/COMMERCIAL FACILITIES


DUTSE L.G.
Natara
Gantsa
Sindimina
Y. Tukur
WUDIL L.G.
Yalwan Damai
Iggi
Bmin Kudu
Wurno
Tikas
Tsangarwa
Kiyaya
Sara
Kila
Nassara-wa
BAUCHI STATE
BAUCHI STATE
Basirka
Gadama
Fagam
N
LEGEND
CO-OPERATIVE BANK
MOBILE BANK STATION
POSTAL AGENCY
LETTER COLLECTION POINT
FIRE SERVICE STATION
GRADE 1 AREA COURT
GRADE 2 AREA COURT
POLICE HEADQUARTERS
POLICE STATION
POLICE POST
MAIN ROADS
FEEDER ROADS
L.G.A. BOUNDARY
5 0 5 10 15 20KM
HASSAN M.B.
MSc 1986/88

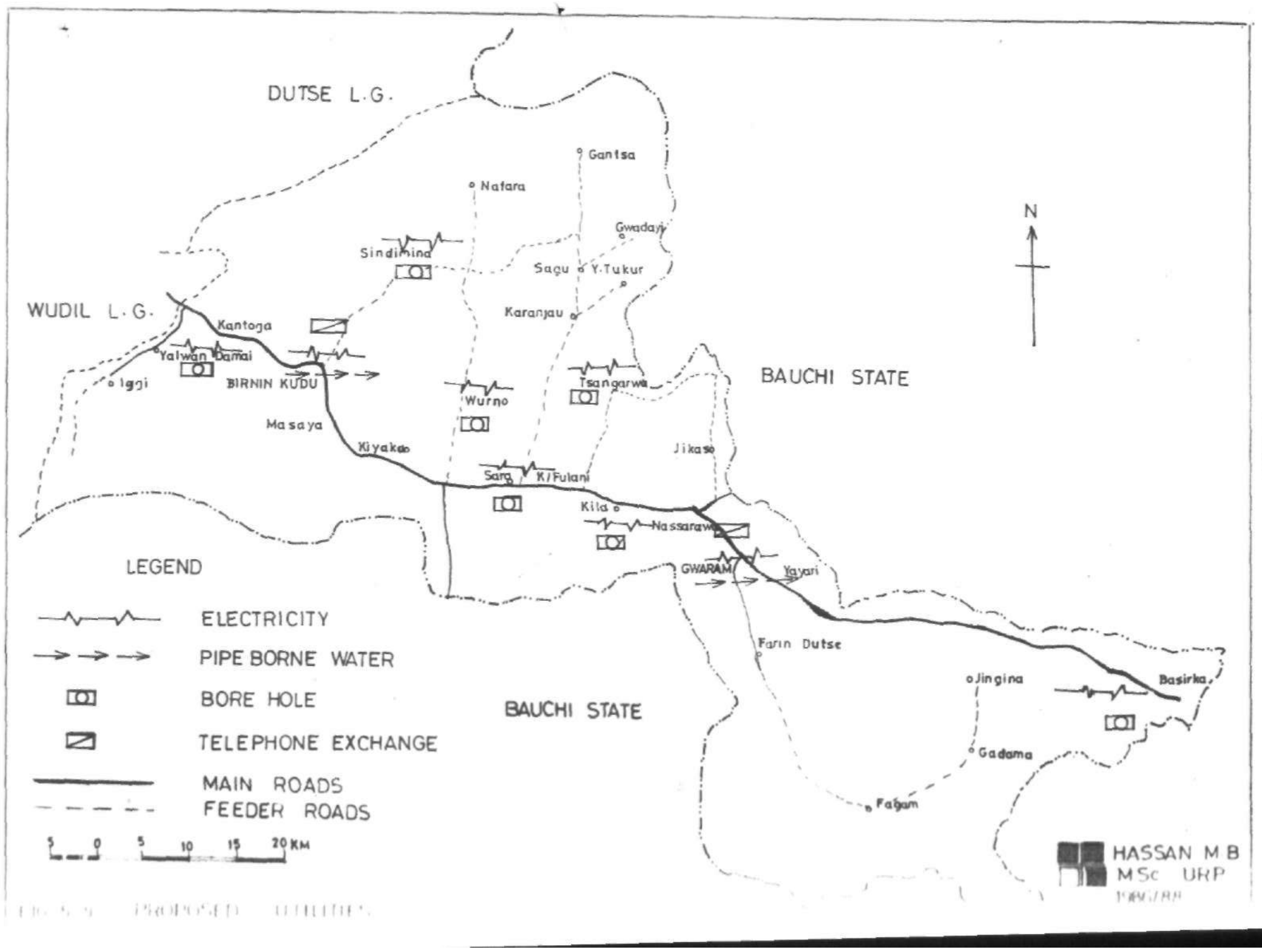

DUTSE L.G.
Gantsa
Natara
Gwadaja
Sindimina
Sagu
Y.Tukur
Karanjau
WUDIL L.G.
Kantoga
Yalwan Damai
Iggi
BIRNIN KUDU
Tsangarwa
BAUCHI STATE
Wurno
Masaya
Kiyakao
Jikaso
Sara
K/Fulani
Kila
Nassarawa
GWARAM
Yayari
Farin Dutse
Jingina
Basirka
Gadama
Fagam
N
LEGEND
ELECTRICITY
PIPE BORNE WATER
BORE HOLE
TELEPHONE EXCHANGE
MAIN ROADS
FEEDER ROADS
5 0 5 10 15 20 KM
BAUCHI STATE
HASSAN M B
M Sc URP

Table 5.1.

Proposed Educational and Health Facilities For BKLG.

1. Educational Sector:

	Facility	Planning Standard	Proposed Standard	Total Requirement	Existing	Proposal
a.	Primary School	1/4-5000	1/4000	40	30	10
b.	Secordary School	1/15-20000	1/15000	10	8	2
c.	Teachers' College	1/15-20000	1/15000	10	1	9
d.	Girls College	1/15-20000	1/15000	10	0	10
e.	Vocational School	1/15-20000	1/15000	10	0	10
f.	Blind Centre	-	1/15000	3	0	3
g.	Public Library	-	1/80000	2	1	1
h.	Reading Room	-	1/5-7000	24	0	24
i.	Adult Educ. Class	-	1/5-7000	24	18	6
2.	Health Sector:					
a.	General Hospital	1/50000	1/80000	2	1	1
b.	Health Clinic	1/4-10000	1/5-10000	16	6	10
c.	Maternity Clinic	-	1/5-10000	16	3	13
d.	Leprosarium	-	1/80000	2	0	2
e.	Public Health Unit	-	1/80000	2	0	2
f.	Refuse Collection	-	1/5-10000	16	0	16
g.	Veterinary Clinic	-	1/80000	2	2	0
h.	Veterinary Post	-	1/5-10000	16	0	16

Source: Field work. Planning Standards were quoted from the Bichi Masterpland prepared by URP Department A.B.U. Zaria.

Table 5.2.

Proposed Commercial and Socio-Cultural Services and Facilities.

3. Socio-Cultural Sector:

	Facility	Planning Standard	Proposed Standard	Total requirement	Existing	Proposal
a.	Community Hall	1/10-25000	1/5-10000	16	0	16
b.	Park/organised Open Space	1/5-7000	1/5-7000	24	0	24
c.	TV Viewing Centre	-	1/5-7000	24	2	22
d.	Public Playground	1/5-7000	1/5-7000	24	0	24
e.	Guest Inn/Lodge	1/10000	1/80000	2	0	2
f.	Museum	1/150-200-000	1/150-200-000	1	0	1
g.	Cemetry	-	1/5-7000	24	24	0
h.	Community Centre	1/10-25000	1/80000	2	0	2
4.	Commercial Sector					
a.	Upgrading Market	-	1/80000	2	-	2
b.	Shopping Centre	-	1/80000	2	0	2
c.	Produce Buying Centre	-	1/5-7000	24	0	24
d.	Cooperative Bank	-	1/80000	2	0	2
e.	Cooperative Store	-	1/15000	10	0	10
f.	Cooperative Shop	-	1/15000	10	0	10
g.	Agro-Service Shop	-	1/5-10000	16	10	6
h.	Mobile Bank Station	-	1/5-10000	16	0	16
i.	Village Shopping Area	-	1/5-7000	24	0	24
j.	Market Place	-	1/5-7000	24	24	0

Source: Field Work.

Table 5.3.

Proposed Industrial Establishments and Other Utilities and Services:

5. Industrial Sector:

	Facility	Planning Standard	Proposed Standard	Total requirement	Existing	proposal
a.	Rural/Cottage Industry	-	1/5000	32	0	32
b.	Agroprocessing Industry	-	1/5-7000	16	0	16
c.	Small Scale Industry	-	1/5000	32	0	32
6.	Other Utilities and Services:					
a.	Electricity Plant	-	1/15-20000	10	3	7
b.	Water Treatment Plant	-	1/5-7000	24	19	5
c.	Telephone Exchange	-	1/80000	2	0	2
d.	Borehole	-	1/5-7000	24	19	5
e.	Grade 1 Area Court	-	1/80000	2	2	0
f.	Grade 2 Area Court	-	1/15-20000	10	3	7
g.	Police Headquarter	-	1/150-200000	1	1	0
h.	Police Station	-	1/15-20000	10	6	4
i.	Police Post	-	1/15-20000	10	6	4
j.	Postal Agency	-	1/15-20000	10	1	9
k.	Letter Collection Point	-	1/15-20000	10	0	10
l.	Fire Station	-	1/80000	2	1	1

Source: Field Work Planning Standards Quoted from Bichi Master Plan.

Figs. 5.1-5.9. Show the proposed location and distribution of employment opportunities, commercial institutions, water resource development areas, social amenities and other UFS. The implementation policies are presented in the following chapter.

CHAPTER SIX

6.0.0. IMPLEMENTATION POLICIES, SUMMARY AND CONCLUSION

6.1.0. Implementation Policies:

For the successful implementation of the proposals made in chapter five there is need for effective coordination and cooperation within and between all the agencies involved in the development process. Implementation policies include phasing of programmes, institutional framework and sources of finance as follows:

6.1.1. Phasing Of Programmes:

Programmes are to be executed in two phases each of five years in line with the national development plan periods (see table 6.1). Programmes are phased out considering the characteristics of the rural areas in terms of their needs, resources and perception. This will help towards identifying the priority areas. The implementation will start from top priorities down to the least, however on a genral note it will be pertinent first to establish an economic base followed by other functional base for the individual

settlements. Modifications may be made with regards to the phasing if and when necessary in order to achieve meaningful development of BKLG.

Table 6.1.

Phasing for Implementation of Programmes

SECTOR	PHASE ONE						PHASE TWO				TOTAL
	YEARS										
	1	2	3	4	5	6	7	8	9	10	
Educational Services											
Mass Mobilisation											
Primary Schools.		2	2	2			2	1	1		10
Secondary Schools				1				1			2
Teachers' Colleges	2		2	1		1	1		2		9
Girls College		2	1	1	2	1		1	1	1	10
Vocational Schools	2	1	2			2	1	2			10
Blind Centres		1			1				1		3
Public Libraries	1										1
Reading Rooms	4	4	4	4		2	2	2	2		24
Adult Education Class	2	2	2								6

Health Services

General Hospitals	1										1
Health Clinics	2	2	1	1		1	1	1	1		10
Maternity Clinics	2	2	2	1	1	2	1	1	1		13
Leprosaria					1	1					2
Public Health Units	1	1									2
Reiuce Collection											
Veterinary Clinics											
Veterinary Posts	4	4	4	4							16
Commercial Services and Facilities.											
Upgrading Markets			1	1							2
Shopping Centres	1	1									2
Produce Buying Centres	8	8	8								24
Cooperative Banks	1	1									2
Cooperative Stores	4	4	2								10
Cooperative shops	4	4	2								10
Agro Service shops	2	2	2								6
Mobile Bank Stations	4	4	4	4							16
Village shopping areas	5	5	5	5	4						24
Market Places											

Industries											
Rural/Cottage Industries	10	10	10	2							32
Agroprocessing Indusries		4	4	4	4						16
Small Scale Industries			2	5	5	5	5	5	5		32
Socio-Cultural Facilities											
Community Centres						1	1				2
Community Halls					3	3	3	3	3	1	16
Park/Organised Spaces					4	4	4	4	4	4	24
TV Viewing Centres	5	5	5	5	2						22
Public Playgrounds			5	5	5	5	4				24
Guest Inn							1	1			2
Museum									1		1
Cemetry											
Other Utilities and Services:											
Electricity Plant	3	3	1								7
Piped Water Supply	3	2									5
Telephone Exchange						1	1				2
Boreholes	5										5
Grade 1 Area Courts											
Grade 2 Area Courts					2	2	2	1			7
Police Headquarter											
Police Station						2	2				4
Police Post								2	2		4
Postal Agency		2	2	2	2	1					9
Letter Collection Point						2	2	2	2	2	10
Fire Station	1										1
Laterite Roads (km)	45	25	22	11	6	35	32	18	12		206
Upgrading Laterite Roads (km)					17	18	6	10	18		69
Coordination, Monitoring and Evaluation											

6.1.2. Institutional Framework For Implementing The Proposals:

This is a very important aspect of plan implementation. In order to ensure that rural development is effective in BKLG, it is pertinent to have an organizational set up with well defined roles and responsibilities up to the grassroot level; with a view to eliminating confusion while implementing the proposals. To achieve this, all the necessary inputs are required from the federal, state, local government and the communities collectively.

Figure 6.1. illustrates the various units involved. The following is a summary of the roles and responsibilities assigned to the actors in the proposed institutional framework for rural development in the area.

6.1.2.1. Policy:

Policy guidelines may come either from the federal, state or the local government council.

6.1.2.2. Plan Making And Approval:

Developments proposals may be considered by ministries, KNARDA or other rural development agencies. In addition to this KNARDA should be responsible for coordinating all rural development plans and activities some plans may

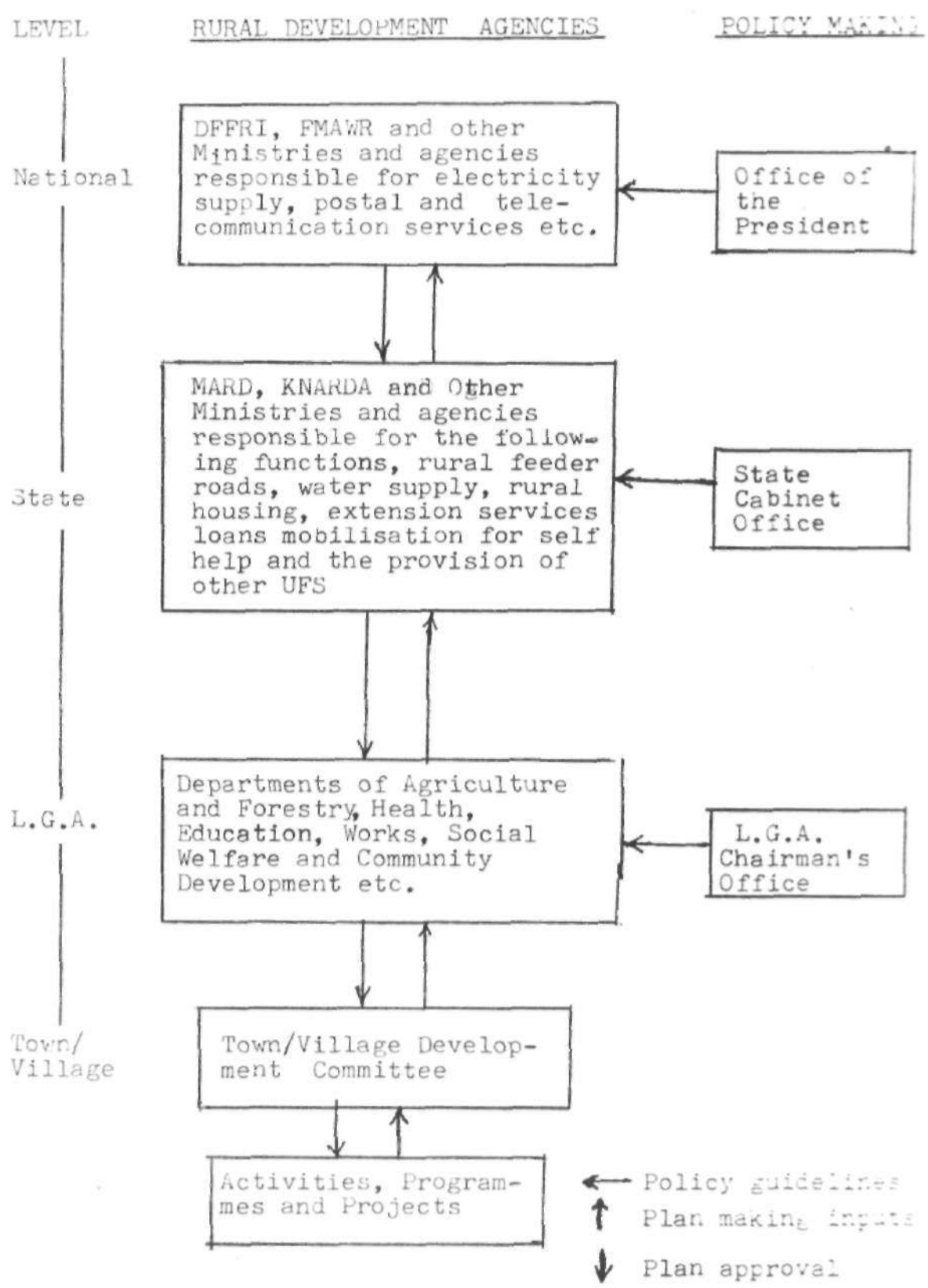


Fig. 6.1. Proposed Institutional Framework for Rural Development in BKLG.

go back to the federal government for approval.

6.1.2.3. Plan Implementation:

Programmes are tobe executed by existing ministries, parastatals, departments and other development agents including selfhelp groups and wealthy individuals.

6.1.2.4. Monitoring And Evaluation:

This is to help check whether implementation activities are in accordance with appoved plans. The evaluation exercise is on the other hand aimed at measuring the degree to which objectives and targets of plans are met. These twin functions are also to be performed by KNARDA.

6.1.2.5. Development Committees and Membership:

It was noted, however, that since KNARDA is run by an executive committee (KNARDEC); all that is required is to extend membership of the committee to all the development agents. Representations can be made as follows at the local government level.

1. Federal government representatives.
2. State government representatives.
3. Local government representatives.
4. Community leaders representatives.

5. An economic and a physical planner.
6. Representatives of local business community.
7. Representatives of voluntary development associations.

KNARDA's main function is to match government development policies and programmes with the perception of the rural communities to make development effective at the lower levels, thereby bringing the three tiers of government and the rural communities closer for exchange of ideas and better understanding of rural development issues.

In addition to this, at the village level; each village should have a development committee to comprise of the following members.

1. A representative from KNARDA
2. A local government representative
3. Village and Community leaders.
4. Representatives of village business community and
5. Representatives of voluntary development associations.

The village development committee is responsible for identifying priorities based on the existing need, resources and perception of

the rural areas. It is also intended to carry along the rural communities in the conception and implementation of rural development activities, programmes and projects with the help of government officials wherever necessary. This is aimed at encouraging people's acceptance and initiatives in rural development. The committees are also intended to integrate and coordinate activities of all developments efforts at various levels in BKLG. For successful implementation such activities should be streamlined accordingly to conform with the proposed plan. The next section deals with sources of financing the proposed plan.

6.1.3. Sources Of Finance:

For the successful implementation of any plan there is need to generate adequate funds to finance the programmes. The plan should receive all the necessary publicity in order to generate public awareness and to enhance the mobilisation of human and material resources required for its implementation. Projects are to be executed through direct labour with exceptional cases where special skills and high technology may be required.

The existing source of finance for funding rural development in BKLG is from the Federal, State and the local government council. However it is not adequate enough to achieve meaningful development of the rural areas. It is therefore recommended that the three tiers of government should increase their allocations for rural areas. It is therefore recommended that the three tiers of government should increase their allocations for rural development to reach not less than 20%, 30% and 40% from the available resources of the Federal, State and Local governments respectively. On the other hand since the voluntary development organizations have been sources of labour and other inputs, the government should encourage them with all necessary assistance and the provision of prizes and honours to deserving self help groups; with a view to promoting community self help development ventures to supplement government efforts.

6.2.0. Summary:

The study has been able to establish that rural development efforts in BKLG and indeed the whole country were on ad-hoc basis, and the machineries for implementing them were also faulty. No effort was made to integrate the physical, social and economic potentials, emphasis was on

sectoral planning, infact development in spatial terms was totally neglected until quite very recently. Hence they failed to make the necessary impact on the rural areas. The Kano State government established KNARDA in 1982 with a view to integrating its rural development efforts which were hitherto undertaken by several agencies. Although KNARDA is performing its functions according to its aims and objectives, however it suffers from an initial poor conception of rural development, lack of well defined working relationships with other rural development agencies, erratic and inadequate funding, and under-utilisation of local human and material resources and hence its limited impact on the people.

The existing hierarchies of settlements were not fully equipped with all the necessary UFS to perform their functions efficiently. The existing distribution of employment opportunities, social amenities, physical and social infrastructural facilities in BKLG are inadequate. There is need to evolve appropriate strategies to improve the standard of living and productive capacities of the people. This can be achieved through the mobilisation of local resources, inter sectoral coordination and appropriate spatial reorganisation.

The recommendations made include the development of functional hierarchies of settlements for interdependence, road network and hierarchies, water resources development areas, rural industries, more agroservice centres, produce buying centres and other commercial outlets. Others include the location and distribution of all necessary UFS and the development of cultural recreation and tourism. All these are proposed with a view to providing a viable and strong economic base for physical and economic development, amenities for human fulfilment in living, working, recreation and movement in the study area.

For the successful implementation of the proposals, the recommended policies include an institutional framework where all development efforts by the various tiers of government, individuals, organisations and communities are brought together to achieve effective development. This study recognises the traditional sources of finance from government annual budgetry allocations, and local government grants to be supplemented by development appeal funds and donations from communities, organisations and individuals. It is envisaged that all inputs should be generated locally with government assistance wherever necessary to achieve a self sustaining development

in BKLG. Through effective utilisation of funds and compliance to the phasing programme, the goals of this exercise can be achieved within the given period.

6.3.0. Conclusion:

BKLG is blessed with human and material resources that can be exploited to develop the area. To achieve this there is need to identify the peoples' needs, priorities and available resources in the design and implementation of activities, programmes and projects; with a view to avoiding the mistakes of past rural development efforts that have failed to make the necessary impact on the rural areas.

The establishment of KNARDA in Kano State is a necessary but not sufficient measure to arrest the situation. However inspite of its shortcomings, KNARDA is more efficient than a ministry and therefore it has potential roles to play in the development of the rural areas. In order to improve its performance and justify its existence KNARDA can act as a coordinating and monitoring body for all rural development efforts at the same time providing other necessary inputs in collaboration with other formal and informal development agencies.

It is hereby suggested that all rural development efforts should be coordinated at the local government level to facilitate economic and physical development. And since planning is concerned with the ordering of activities and facilities in space, this study recognises the linkages between for instance agriculture and transportation, water supply, health care and educational facilities, industry and electricity supply etc. The coordination of all these activities within BKLG, through the successful implementation of all proposals made in this exercise; will ensure a more integrated and well coordinated rural development and hence improved well being of the people in the study area.

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APPENDIX

EXISTING UTILITIES, SERVICES AND FACILITIES IN BKLG

SETTLEMENTS	EDUCATIONAL FACILITIES			HEALTH FACILITIES				OTHER UTILITIES AND SERVICES									SMALL SCALE INDUSTRIES				
	P.S.	S/T	OTHERS	HC	MC	CH	GH	PBW	RES	PLS	CRS	POA	CMB	RTV	KSS	SHS	BKR	BLM	SVC	CML	TOTAL
1.Birnin Kudu	3	1	2				1	1	1	1	1	1	1	1	1	2	6	3	3	4	33
2.Gwaram	3	2	1		1	1		1	1	1			1		1	2	4	2	3	5	29
3.Sara	2	1		1				1								1	4		3	2	15
4 Basirka	1	1		1	1			1							1	1	2		3	2	14
5 Sindimina	1	1			1			1	1						1	1	1		3	2	13
6 Wurno	1	1		1				1							1	1	1		2	2	11
7 Kila	2							1							1	1	1		2	2	11
8 Yalwan-Damai	1	1		1				1							1	1	1		2	2	11
9 Tsangariwa	1							1	1						1	1	1		3	2	11
10 Yayarin-Tukur	1	1		1				1	1						1	1	1		2	1	10
11 Fagam	1							1							1	1			3	2	9
12 Iggi	1							1								1	1		2	2	8
13 Nafara	1							1	1							1			2	2	8
14 Nassarawa	1							1	1							1			2	1	7
15 Gantsa	1			1				1	1							1			2		7
16 Masaya	1							1								1			2	1	6
17 Ciyako	1							1								1			2	1	6
18 Jikas	1							1								1			2	1	6
19 Gadama	1							1								1			2	1	6
20 Farin Dutse	1															1			2	1	5
21.Kantoga	1															1			2	1	5
22 Yarma	1															1			2	1	5
23 Jingino	1																		2	1	4
24 Yayari	1																		2	1	4
Total	30	9	3	6	3	1	1	19	8	2	1	1	2	1	10	24	22	5	56	40	

P.S. - Primary School
S/T - Secondary/Teachers College
Others-School of Nursing, Rural Training Centres etc.
HC - Health Clinic
MC - Maternity Clinic
CH - Comprehensive Health Centre
GH - General Hospital
PBW - Piped Water Supply
RES - Rural Electricity Supply
PLS - Police Station
FRS - Fire Service Station
POA - Postal Agency
RTV - TV Relay Station
KSS - Kasco Store
SHS - Slaughter House
CMB - Commercial Bank
BKR - Bread Bakery
BLM - Block Making
SVC - Service
CML - Corn Mill.