AN INTEGRATED APPROACH FOR RURAL DEVELOPMENT: THE FUNTUA AGRICULTURAL DEVELOPMENT PROJECT CASE

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C E R T I F I C A T E

This is to certify that this Thesis has been submitted as partial fulfilment of the requirements for the award of the Degree of Master of Science, Urban and Regional Planning.

APPROVED.

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D E D I C A T I O N

To Philo for continuous love and endurance during my trying periods.

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S Y N O P S I S

Rural stagnation and underdevelopment is one of the greatest problems facing developing countries like Nigeria where about 80% of the people live in rural areas.

It is important that these people be made to taste of the good things that are necessary for a better living standard such as good education, good roads, good drinking water, electricity, health services, better living environment, diversified economic base etc.

In finding solutions to this problem many strategies have been adopted in many different countries but none has been very successful. It is the intention in this study to suggest a more comprehensive solution to the problem through the Integrated Approach for Rural Development.

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CHAPTER 1

1.00 GENERAL

1.10 INTRODUCTION:

The great manifestation of poverty, ignorance, disease, official neglect and other socio-economic and physical problems that have beseiged the rural population in Nigeria, albeit in Africa, has pushed people and governments not only in Nigeria but in the Third World Countries in general to engage in rural development and settlement schemes. These schemes basically aim at influencing traditional Societies to adopt better modern methods in the development process in order to raise the standard of living in the rural areas and increase their Socio-economic and physical outlook or at least to reduce their locational disabilities. Thus the earliest schemes were geared towards increased production of food and cash crops to sustain the national economic growth and later the welfare of the rural people was included in such schemes.

In these rural areas in Nigeria and Africa in general, where over 80% of the population live (Olatunbosun, 1975. See Table 1) and the population pressure on the inadequate and deteriorating facilities and services is great, the development schemes have been approached in a "haphazard, adhoc and unco-ordinated" manner by the people and government alike (Teriba, 1972). Thus the impact and changes expected as a result of these schemes have been very little. In fact in some cases these Schemes have thrown off balance the traditional subsistence economy of the rural areas (Halpern, 1967) and impaired their socio-economic and physical development culminating in a rural to urban rush which further complicates the already existing urban problems of squarters,

TABLE 1: TOTAL RURAL AND URBAN POPULATION IN AFRICA 1970

Country	Total ('000s)	% Urban	% Rural
Morocco	15,779	30.2	69.8
Algeria	14,012	29.5	70.5
Tunisia	5,075	25.7	74.3
Libya	1,880	23.7	76.3
U.A.R.	33,872	41.0	59.0
Sudan	15,779	7.5	92.5
Senegal	3,925	27.3	72.7
Mali	5,088	7.1	92.9
Ivory Coast	4,310	19.0	81.0
Upper Volta	5,376	4.2	95.8
Dahomey	2,686	11.9	88.1
Niger	3,848	4.3	95.7
Gambia	364	9.6	90.4
Guinea	3,921	10.7	89.3
Sierra Leone	2,644	13.2	86.8
Liberia	1,171	18.4	81.6
Ghana	9,026	17.4	82.6
Togo	1,861	10.5	89.5
Nigeria	66,174	19.3	80.7
Cameroun	5,786	7.3	92.7
Chad	3,706	7.6	92.4
Gabon	481	11.4	88.6
Central African-Republic	1,522	16.4	83.6
Congo	936	31.0	69.0
Zaire	21,638	15.0	85.0
Tanzania	13,236	5.7	94.3
Uganda	9,774	5.4	94.6
Ethiopia	25,046	4.9	95.1
Kenya	10,898	7.9	92.1
Swaziland	421	5.0	95.0

Source: Economic Commission For Africa: Statistical Year book: Demography and Social Statistics, New York, 1970 pp.4-5.

slums, poor and inadequate housing, unemployment etc. For example schmes like the Mokwa settlement scheme failed and the people dispersed to various places because they were not properly introduced into the process.

If nothing adequate is urgently done to improve the socio-economic and physical outlook of the rural areas the effect of their neglect as already being felt in our few urban areas is going to grow into greater dimensions and may finally cripple the national economic growth because industrialization and urbanization cannot be sucessful without due contribution from the rural areas in terms of human and other natural resources.

1.11 THE PROBLEM AND JUSTIFICATION FOR THE TOPIC:

Many rural development programmes have either failed to achieve their aims and objectives or have succeeded in solving only a part of the rural problems. Therefore the major problem is how to formulate a workable rural development strategy that will not only succeed but which will integrate all aspects of development such as agriculture, education, health, environmental sanitation, co-operatives, recreation, administration and physical aesthetics of the rural areas into a single development and a continuous programme.

Because of failure or only a partial success of rural development programmes, there is a great drift of the rural population especially in the working age group into the urban areas thereby escalating the existing urban problems of over crowdedness, sluns, unemployment etc. This has attracted the government attention and for the first time a "Rural Development Policy" for Nigeria was included in the "Third National Development Plan 1975 - 80[1]. In

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1. Federal Government of Nigeria (1975), P. 292.

pursuance of this policy the Kaduna State Government has embarked on rural development based Agricultural Development starting from the Funtua Agricultural Development Project and covering the whole State during subsequent plan periods.[2]

Therefore if the government has accepted the need, and decided to embark on such rural development programmes, it is felt reasonable to draw up a workable programme that will be more meaningful and more effective than the piece-meal approach type that has been tried in the past. Such an integrated programme will help achieve simultaneous development in all sectors of the rural areas. This will not only help to co-ordinate government expenditure but will encourage greater local participation and reduce considerably the rural urban drift by providing the rural areas with better employment opportunities and other facilities and services which have hitherto been limited to urban areas only. This will also help diversify the economic base of the rural areas, increase the earning and investment capacity of the rural people and help raise the standard of living of the rural communities at a faster rate than the piece-meal approach. It has been said that in Nigeria the minimum pay for urban workers is still more than twice the average income of the rural workers even after allowing for differences in cost of living (Teriba and Phillips, 1971). In this light, the integrated rural development besides improving the life in the rural areas, will create a healthy rural-urban integration and ultimately increase and sustain the national economic growth.

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2. Kaduna State Budget Speaches 1978/79 and 1979/80 Military Administrator's Office, Kaduna.

1.12 AIMS AND OBJECTIVES OF THE RESEARCH:

The main aims of the research are:-

(a) To create a balance between urban and rural life.

(b) To identify areas of integration in Rural Development Programmes.

(c) To suggest a strategy for an integrated Rural Development.

The objectives of the research therefore are:-

(a) To control the drift of rural population into urban areas by raising the standard of living in the rural areas through a properly planned integrated rural development process which will cover areas of agriculture, education, health, environmental sanitation, nutrition, housing, industry, trade and commerce, community development, co-operatives, recreation, Water supply, electrification, administration and the physical layout of the rural areas.

(b) To examine the programme of the Funtua Agricultural Development Project with a view to exploring the need for an integrated approach to rural development.

(c) To examine various rural development strategies and identify a preferred strategy for application in Nigeria and suggest improvements (if any) on the preferred strategy.

(d) To improve the development capacity and capabilities of the government machinery and the rural people through a well planned integrated development process.

1.13 SCOPE AND LIMITATIONS OF THE RESEARCH:

Regional development is a very wide field of research. Therefore this study cannot exhaust all aspects of rural development. It has been limited to developing an effective and workable rural development strategy through the study of an existing programme,

the Funtua Agricultural Development Project in Kaduna State of Nigeria. Reference will be made to other known programmes for comparison purposes only.

1.14 DEFINITION OF SOME TERMS USED IN THE THESIS:

A. Rural Area:- A clear cut definition of a rural area is difficult to come by. Some times population size is used to define rural areas as being sparsely populated. But such a definition runs into difficulty when it is discoverred that some rural areas have population densities higher than some urban areas. The definition of rural areas differs from country to country depending on the level of development.

For thousands of years rural areas have been places where basically the majority of the people are peasant farmers and are areas locking in basic amenities like pipe borne water, basic health services, educational facilities, good roads, good housing, maternal and child care, good nutrition, modern ways of cultivation etc.

Recently there has been a progressive decline in the farming population due to migration of young abled men and women into the urban areas and this portrays the rural areas as places mainly inhabited by very high ratios of very old people and children below the age of 18 years.

Also the presence of some facilities and services have been used to define rural areas. But these facilities and services which hitherto were found only in urban areas have found their ways into some rural areas and yet have changed little of the area. Such facilities include health services, water and electricity.

Some rural areas have mining villages which have no farming characteristics while some other villages are being influenced by modern architectural designs because they are blessed with people who are working in urban areas and can either save money or take loans to erect modern houses in the villages in readiness for retirement or for use during holidays. All these have further made the definition of rural areas difficult if we consider either the presence or absence of such things as good housing or electricity.

With these kind of situations therefore, a clear cut definition of a rural area is not easily obtainable. But for the purpose of this study it will be sufficient to define a rural area as a place where majority of the people are engaged in agriculture or mining which have inadequate (in quantity and quality) essential facilities and services like safe drinking water, electricity, health, good roads, better housing, proper educational facilities, and other infrastructure.

B. Development:- It is generally manifested by a change in technology, standard of living, Social Structure and relationship. It is seen as a change in the quality of life of a community through improved production, higher earnings, better health facilities, better shelter and it depends not so much on finding optimal combination for given resources and factors of production as on calling forth and enlisting for development purposes, resources and abilities that are hidden, scattered, or badly utilized (Hirschman, 1958).

Developments are usually concentrated in urban areas in developing countries at the expense of the rural areas where majority of the people live. About 60 to 90% of these rural people are left to earn their living by tilling the land.

C. Integration:- The Concise Oxford Dictionary (5th Edition 1964) defines integration as the acts which "complete an imperfect thing by addition of parts; combine parts into a whole". For this study it will mean making perfect the rural development process through the combination and co-ordination of activities of agents of rural development.

D. Integrated Rural Development:- Faced with the kind of situation described above, it is not surprising that in contemporary Africa and other developing countries of the World, growing emphasis is being placed on rural development. Governments are now aware of the need to redress the disparities in the living conditions between urban and rural areas which have been evidenced by the mass exodus and the desperate desire of the rural population to escape from their locational disabilities. Integrated Rural Development therefore can be said to mean a multi-sectoral or an inter-disciplinary programme aimed at increasing agricultural production, construction of good roads, supply of safe drinking water, supply and improvement of education, health, housing, nutrition and sanitation, rural electrification, rural industrialization, local trade and commerce, co-operatives and community development for the betterment of the standard of living of the rural majority.

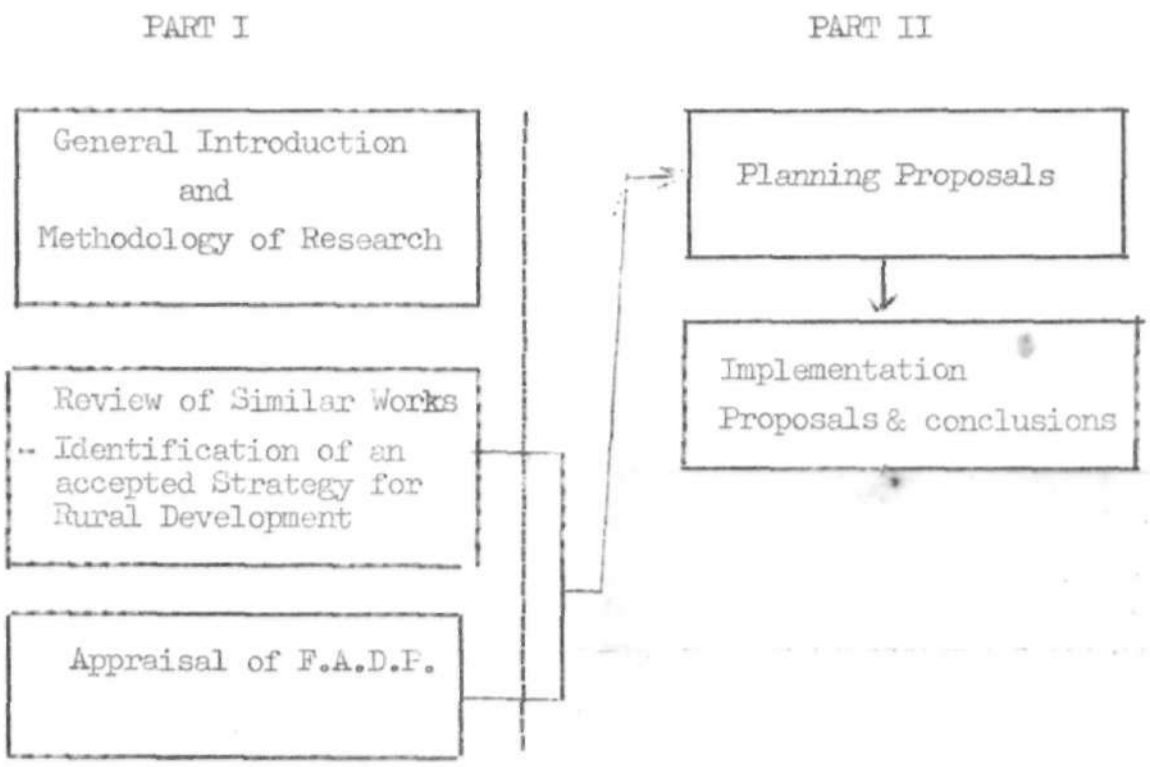
Integrated Rural Development is an organically interwoven series of social, economic and technical solutions to the rural problems. It is not the same as agricultural development although agricultural development is an essential part of it (Olatunbosun, 1976). It necessitates investments in many kinds of rural public

works in addition to those required for improvement of agriculture. It is a broadly based rural development which means transformation of stagnant Traditional Societies into productive, dynamic rural economies (Anker, 1973). The emphasis is on the integration, co-ordination and co-operation in the planning and implementation process. It is sometimes called Multi-Sectoral or Inter-Disciplinary Rural Development.

1.20 STRUCTURE OF THE THESIS:

This study is generally divided into two main parts. Part one deals with the problem, collection and method of analysis of data and the review of similar works and the Funtua Agricultural Development Project itself. This gives the foundation on which part two is built. This part two concerns itself with planning proposals for an Integrated Rural Development Programme, the Implementation proposals and conclusions recommendations.

STRUCTURE OF THE THESIS:-



1.30 METHODOLOGY OF THE RESEARCH:

1.31 DATA COLLECTION:

Most of the data collected was from secondary sources which include the following:-

Source of Data	Information Collected:
1. Kaduna State Ministry of --- Economic Development	a. Population Statistics
	b. Economic Planning and development in Kaduna State.
2. Federal Department of --- Rural Development, Fed. Ministry of Agric. and Rural Dev. Technical Report No. 5.	a. List of Villages in study area.
	b. Estimated number of Families.
	c. Tribal and religions groups.
	d. Facilities and Services existing.
	e. Publications on Rural Dev. Schemes in Nigeria.
3. Kaduna State Ministry of --- Agriculture and Rural Development.	a. Programmes and Policies.
	b. Relationship with other Ministry as regards Rural Development.
4. Kaduna State Ministry of --- Health.	a. Health Services and facilities available.
	b. Programmes and policies.
	c. Relationship with other Ministries.
5. Kaduna State Ministry of --- Education.	a. Educational Services and Facilities.
	b. Programmes and Policies.
	c. Relationship with other Ministries.

Source of Date:		Information Collected:
6. Kaduna State Ministry of Trade, Industry and Co-operatives	--	a. Industrial & Commercial establishments.
		b. Co-operative Societies.
		c. Programmes and policies.
		d. Relationship with other Ministries.
7. Military Administrators Office.	---	Budget Speeches.
8. Kaduna State Water Board.	---	a. Programmes and Policies.
		b. Relationship with other Ministries.
9. Kaduna State Rural Electrification Board.	---	a. Programmes and Policies.
		b. Relationship with other Ministries.
10. Kaduna State Ministry of Works	---	a. Programmes and Policies.
		b. Relationship with other Ministries.
11. Kaduna State Housing Authority.	---	Programmes and Policies.
12. Kaduna State Ministry of Lands andSurvey Town Planning Division.	---	a. Programmes and Policies.
		b. Maps and diagrams.
		c. Relationship with other Ministries.
13. Funtua Agricultural Development Project.	---	a. Project Organisation, Management and programmes.
		b. Project Evaluation.
		c. Maps and diagrams.
		d. Statistic on farming activities.
		e. Relationship with other Ministries.

Source of Data:		Information Collected:
14. Publications	---	a. Rural Development Schemes and Strategies.
		b. Socio-Economic Statistics.
15. Local Government's Offices.	---	a. Population Statistics.
		b. Services and facilities.
		c. Relationship with Project and other Ministries.
16. Local People	---	Reaction to the F.A.D.P., Project.
17. Personal Observation and discussions.	---	Conditions of roads, topography, quality of services and facilities etc.

1.32 METHODS OF DATA ANALYSIS:

The 1963 population of the study area was used to project the planning population for 2000 A.D. through the crude arithmetical projection method using the nationally accepted natural growth rate of 2.5%. To cross-check this, each family in the study area was estimated to be made up of an average of 7 people[1] and the total number of families was multiplied by 7 to get an estimated population for 1976 and then the 2.5% growth rate was applied to estimate the population for 2000 A.D. which was not quite different from the 1,284,376 got by projecting the 1963 population.

For those services and facilities available, the estimated 1978 population was used applying standards commonly used in most developing countries to see whether they are adequate in number or size commensurate to the population and function of the villages. For example: one primary School to 4000 population, one hospital for a radius of 30 km. etc. Thereafter the estimated population for 2000 A.D. was used to estimate and distribute future required facilities, services and other infrastructure.

The roads were directly classified as tarred roads, all weather laterite roads and dry season laterite roads.

For the Funtua Agricultural Development Project the aims and objectives were taken from the edict establishing it. So its success so far have been estimated through comparing the set or planned programmed and what has been done and possibily its success. This, in a way, is a crude application of the Goal Achievement Matrix.

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1 Max-Lock Group, 1978 Chapter 5

The lack of integration in the programme of the study area is clearly revealed in the edict establishing it and in the way the programmes are planned and geared towards the improvement of agriculture mainly. For example the roads are built to facilitate movement to and from farm service centres and help in evacuating farm produce and supply farm imputs. The dams built are sometimes too far away for people and are used by both people and animals.

CHAPTER 2

2.00 REVIEW OF EXISTING LITERATURE ON RURAL DEVELOPMENT STRATEGIES

2.10 The Need For a Strategy:

Many people and governments (as already stated in Chapter 1) have accepted the need for rural development. Different approaches have been used to solve the rural development problems and most of them have either failed or succeeded in part. It seems that these days almost equal time is spent on the development of very effective rural development strategies as on the development process itself. This is important because anything worth doing at all is worth being properly planned well with a clear cut strategy for achieving the objectives. The literature on these strategies cannot be exhausted in a study such as this and therefore the very few important ones that are available to the author will be examined.

2.11 The Strategy of Hierarchical Market/Service Centres:

Some Scholars have argued that the problems of the rural areas can be solved with a properly organised hierarchical market system and rural service centres to enhance the economic base of the rural population and draw them together. They argue that every rural producer has to be within a convenient travel time and some adequately competitive selling places for his produces, some equally competitive source of consumers and producers' goods and some adequately diversified service centres. Johnson (1970) argues that unless there is a systematic, inter-linked and functional integrated market system which covers the entire national

areas, there will be low production and consequently there will be a low consumption and less social and intellectual development of the human resources.

Funnel (1976) also highlights the need for a hierarchical market system and rural service centres in ensuring efficient supply of social services to dispersed rural population. He gives an example of the 1970 - 74 Kenyan Development Plan in which a four-level hierarchy was created as a national settlement policy as commendable.

No doubt these market sites and service centres can generate growth in the rural areas. They will be focus points for the location of essential services and facilities because they are sure to be patronised by the larger majority of the community. The snack here is that the advocators are rather silent on the question of real integration.

2.12 Growth Poles/Growth Centres Strategy:

Perroux (1950) defines "Growth Pole" as a spatial, economic concept concerned with development dynamics and Funnel (1976) describes "Growth Centre" as a locational and spatial concept related to "Growth Pole". Growth Centres therefore are the manifestation in space of Growth Poles.

The Growth Centre/Pole approach basically applies the theory of "Unbalanced Growth" advanced by Schumpeter, Hirshman and others. The basic idea of this theory is that with the creation of an imbalance in the development stage there will be the wish to balance and hence development will be increased. This leads to a some what competitive development that may eventually reach a balanced situation which may remain until another imbalance is caused.

While the theory of Polarisation is linked with the diversification of activities and the hierarchy of poles is defined by the dominance of the metropolis over the sattelite towns, the Growth Pole theory emphasizes key nodes where unbalanced growth is introduced to generate development impulses which will introduce further development. The prospensity of the key node is a function of innovations which the node can generate and this in the long run results in structural changes manifested in social, economic and geographical space (Perroux, 1950). Hermason says that a growth pole is that which contains propulsive forces for developments which are able to exert propulsive force on their environment and generate and sustain development over a long period of time. Penovil (1970) also emphasizes the need to identify the growth potentials of a growth centre such as availability of natural resources, quality and importance of infrastructure etc.

Johnson (1970) says that once a site for a growth centre is identified, the next task of a planner is introducing change agents like investors and entrepreneurs from within and outside the area.

Because developing countries have been eager to develop fast, they have tended to over apply the growth pole/centre theory and this has led to the development of a few urban areas at the expense of the rural areas.

2.13 The Sectoral Policy:

The sectoral preparation of development plans has also plagued developing countries. In such programmes, separate plans have been drawn for the provision of facilities and services

in all fields of development but these plans are never co-ordinated in any way for effective implementation. Instead of a comprehensive development plan, some people argue that separate policies for agricultural development, industrial development, natural resources development etc. should be worked out. Chambers (1974) says that the system involves all agents of development and it is a way of allocating scarce resources.

This approach sees rural development as a sequential activity and therefore the rural development programmes should follow a sequence. This is a simple and flexible approach which by-passes the complexities of a multi-sectoral approach to rural development. The advocators of this approach argue that it allows for easy controls since different responsibilities are taken care of by specific known authorities. This approach sometimes fails because of the exclusion of the target community from the development process and because it may be based on false assumptions.

2.14 Large-Scale Agricultural Projects:

Large Scale agricultural development project like the Funtua, Gombe, Lafia and Ayangba types have also been advocated for as means of generating rural development (Singh, 1971). In fact in many developing countries rural agricultural development is the major factor for rural progress (Coombs, 1974) and therefore the main economic base of most of these countries. Sometimes such large scale projects may fail due to lack of funds and manpower and due to lack of supplementary services from other areas of development.

It is true that increased production of farm products coupled with other things like market for the surpluses can lead to a rise in economic and social conditions of the people but not necessarily an increase in general rural outlook.

2.15 Community Development/Co-operative Activities Strategy:

This approach particularly emphasizes the participation of the local people in the development process. Hobhouse (1972) argues that community development and co-operative activities which involve the participation of the entire rural population can produce meaningful economic and social progress. The approach encourages self-help projects essentially for social welfare services which may or may not be assisted financially and technically by governments. Such projects include Town Halls, Bridges, Dispensaries etc. The determination of the people to develop is probably more effective and progressive than the government forcing the people to develop.

The major problems with this approach are that if proper co-ordination is not done there may be duplication of efforts between the government and the rural people. There can be serious disorganisation if the programmes are not properly planned and the participants consent sought.

Co-operative societies have made their mark on recent rural development programmes. King (1976) emphasizes how such societies can help in rural development. They can provide the means for organising the rural people into groups through which government help for rural development programmes can easily be channelled and groups through which the farmers can easily approach

the government to change its policies. They help in the organisation of collective marketing of farm produce as well as in purchasing and distributing essential farm imputs and other consumer goods therby getting rid of the middlemen who often cheat these rural people.

Co-operatives can encourage personal savings among the rural people and reduce the acute shortage of rural credit which is one of the greatest problems in rural development in developing countries (Teriba, 1973).

2.16 Village Re-Grouping Strategy:

This strategy aims at re-grouping scattered villages for the economical provision of services and facilities. Central villages are selected and development activities are infused in these villages to create job opportunities which may attract people who might otherwise migrate into urban areas.

Although this approach creates the necessary threshold population which is good for the location of certain socio-economic services and activities, it should be used with caution as people of different social background and occupation are brought together and adequately provided for. For the study area this strategy will not be ideal because majority of the people are farmers and also very few of the villages (3 to be exact) have present population below 3,000. If we begin to group villages of large populations we will end up creating large settlements which are likely to be neither rural nor urban in their outlook.

2.17 The Integrated Approach:

This is also known as multi-sectoral or inter-disciplinary approach. It recognises the need for a proper co-ordination of government planning and implementation units. It also has a high regard for local needs and resources.

In this approach an Integrated Area development plan is drawn in which all agencies of development are involved. Areas where each agency come in are clearly spelt out and areas of integration and co-ordination are clearly indicated.

According to the phased out programme, each agency or Ministry will identify its programme and implement it according to the circumstances and depending on the availability of funds, manpower and technology. The hierarchical order of settlement also is used as much as possible for the phasing out implementation. The Integrated Area development plan is usually drawn for a period of about 20 years and phased out in a 4 to 5 yearly basis.

2.18 The Preferred Strategy:

The Integrated Approach for rural development stands out from the different strategies discussed above as the preferred strategy for application in Nigeria and the developing world in general. This is so because it accepts most of the ideas of the other approaches and works out ways of a spontaneous and comprehensive rural development process taking into accounts all agencies involved in the process including physical planning.

It also ensures the integration of a comprehensive system fully taking into account the inter-relationships and complimentarity of many factors and with due consideration for projects that mutually support and inter-lock with one another in an overall integrated plan (Olatunbosun, 1975).

It is based on the fact that economic and social progress are mutually re-inforcing each others, requiring that all natural, technical, economic, social and institutional relationships and their changes be taken into account and that they should be combined in such a way as to serve the well being of man and social integration as the ultimate goal (Leupolt, quoted in Olatunbosun, 1976).

As can be seen from the above discussion, this approach does not, as some people tend to see it, advocate for an independent rural development plan outside what is included in the National Development Plan. It is only advocating the proper co-ordination of those programmes as they concern the rural areas and in deed the whole nation so as to achieve an effective implementation. It also advocates that rural development should be properly included in the National Development Plans. For example, if in the National Development Plan, the Ministry of Agriculture singles out a region for the development of agriculture through increased farm imputs and better seeds etc. Then the Ministry of Works and Transport should be alerted before hand about the programmes of the Ministry of Agriculture in this area so that the Ministry of Works can draw up its programmes in that area to include the provision of good roads for the evacuation of excess farm produce that is likely to come as a result of the improvement in agricultural practices. Other Ministries like Education, Health, Housing, Water Board etc. are also alerted about the programme so that they too will draw up programmes of their fields of specialization to compliment the development in this area. Other areas where different Ministries are having

programmes are also treated in the same manner. By so doing the integrated rural development programme will not necessarily cost the government very much higher than what is expected in a National Development Plan period.

This approach is not without its limitations. For example data for the planning is usually not readily available or is scanty. Sometimes influencial people can gear development projects to their areas at the expense of other areas. Funds are the greatest limitation as some of the rural areas may not be economically viable.

These limitations not withstanding the Integrate Approach has over-shadowed the other approaches because the others have pursued development in a piece-meal manner independent of each others and their inter-relationships have not been clearly grasped. The Integrated Approach emphasizes the mobilisation of human resources in its widest sense, the inter-relationship between the over-all increased input and output and more equitable distribution of income, services and facilities and access to other resources and the resulting linkages between the agricultural and non-agricultural sectors.

2.20 The Problems of Rural Development in Developing Countries:

Attempts will not be made to discuss specific problems which individual countries face in their efforts to stimulate rural development. Rather problems related to rural development generally under specific broad based headings with special reference to developing countries will be discussed.

2.21 Defects in the Land Holding Structure:

One of the biggest problems facing rural development programmes is the land tenure system in most of the developing countries. Most land tenure systems allow for heridetary which leads to fragmentation of land which is very unsuitable for economical development. In some countries, as it was the case in Syria (U.N. 1971) there are large scale land owners who hold a monopoly of the good land and use it to take an excessive share of the produce thus leaving a small portion for the over populated poor majority. Such greedy few influencial individuals will not easily release the land for other development purposes. The biggest problem is the dificulty in changing the inherited land tenure systems in most developing countries to allow for a meaningful and profitable development.

2.22 Lack of and Inapproapriate Education:

The level of literacy and development consciousness among the rural population is very low. It is true that the ability to read and write can change the outlook and attitudes of most people. Many ideas and experiments can be learned through being able to read and write. Most rural people do not even see the need for a change in their present state of being or living standard. Finding practical ways and means to persuade them to follow and practice new ideas and adopt new policies and to put some pressure on them to avail themselves of the facilities of development agencies like Extension Workers, Social Welfare and Community Development Staff, Health and Sanitation Workers, Nutrition Workers, Adult Education, Co-operative Societies etc. is not easy. Unless the level of literacy and development consciousness in raised among the rural population, rural development will not be very effective.

Lack of trained staff is another problem in this respect. The trained personnel in all fields of development are either in limited supply or are lacking as a whole. This is the situation in most developing countries. For an effective rural development programme there should be sufficient trained staff in agricultural and extension services, nutrition, maternal and child care, health and environmental sanitation, economic and physical planning, etc.

2.23 Migration and Under Utilization of Human Resources:

The steady flow of labour from villages to the urban areas is another problem in rural development. The rural population in most developing countries tend to prefer very degrading dirty jobs in the urban areas to staying in rural areas and farming or doing some other jobs. There is the great effect of rural push and the urban pull where for some reasons the rural population especially the young ones feel that they do not fit into the rural areas because of the lack of certain modern amenities and they therefore move out to the urban areas where these amenities are concentrated. The amenities in the urban areas tend to attract or pull out the rural population into the urban areas. Also because of the seasonal nature of most activities presently found in rural areas and because of small holdings and poor technology, the human labour is greatly wasted or under utilized and therefore frustrated to the extent that they migrate to urban areas.

2.24 Political Set Up:

The political situation at any given time affects rural development programmes either in the negative or positive, In a situation where there is a civil war as was the case in Nigeria between 1967 and 1970, rural development, indeed development in general, is retarded or stopped as a whole. In other situations the group in power may or may not favour equal opportunity for all citizens to develop. For example in Southern Africa, not all citizens or areas have equal opportunity to develop. Some political leaders may also call for over centralization of administration thus retarding the execution of government projects including rural development.

2.25 Lack of Reliable Data and Research Findings:

Lack of dependable data on population and natural resources hampers proper rural development programmes. Census figures are never reliable. There are poor, if any, geological survey records. Simple data on births and deaths, outbreak of diseases, etc. are not kept or not properly kept. Because of the absence of centralized records, experiences which could be useful elsewhere are often lost or not shared among development agencies. There is sometimes the lack of pre-ivestment studies which leads to failure of some development programmes. Also there is no proper evaluations of some of these programmes to detect faults for correction and improvements. There is the general lack of co-operation among the different bodies charged with or interested in rural development and therefore no exchange of data and research findings.

2.26 Lack of or Inadequate Economic and other Institutional Base:

Lack of funds or their gross mis-management affects rural development projects. Funds are essential for the training of staff, purchasing equipment, obtaining data and conducting research, etc. Sometimes funds which are used for certain prestige projects are too much while less costly projects but more urgently needed are neglected. People charged with planning development projects often get their priorities wrong.

There is the conflict between modern and traditional values and this holds up rural development projects. It is not easy to reconcile these values and make them acceptable to the rural population.

There is the problem of lack of enterpreneurship and of technical and managerial skills among the rural population. These talents are burried among many of the rural people and they only need to be investigated into and directed for development purposes.

There is also the lack of promotion of interest and participation of the rural population which affects rural development projects. The rural population is not usually given the impetus and encouragement necessary for action and full participation in the development of their areas. In fact sometimes they are even aware of developments meant for their areas!

Low productivity holds back development (although productivity itself can be improved by development) and low productivity is greatly enhanced by lack of good infrastructure, credit and marketing facilities, etc. The rural population is not encouraged to produce surplus which can be sold and the money invested in development programmes.

2.27 Problem of Integration of Social, Economic and Physical Planning:

One of the biggest problems of rural development is the obvious lack of structural integration of government, United Nations specialized agencies and Voluntary Agencies efforts, as well as lack of integration of rural development programmes into the overall National Development programmes. There is no integration between social, economic and physical planning and this effects adversely the rural development programmes. In fact such an integration is a problem in itself.

Also it is not easy to develop physical plans for the numerous scattered small rural settlements. This calls for regrouping of settlements which is not very easy and which has to be tackled with great caution.

2.30 Rural Development Prospects in Developing Countries:

Prospects for rural development now exist in all developing countries. The United Nations with its development agencies like FAO, WHO, UNICEF, etc. is engaged in research and practical execution of rural development programmes in developing countries.

There is almost no developed country that was not faced with the problem of rural development and trying to produce a balance between the rural and urban areas. By the 16th Century, England was no longer a collection of self-supporting rural communities but well organised with market towns where farmers and graziers could sell their produce and purchase farm supplies or consumer goods. The smallest of these market towns served a hinterland of between 12 to 16 sq.km. with a population of about six to a thousand people. Most did not have to travel more than 20 km. to reach essential services and facilities (Johnson, 1970).

The Belgians also fought the disparities between rural and urban areas in the 16th and 17th centuries making it possible to exchange products of local tailors, carpenters, blacksmiths, potters, glovers etc. with farm products - thus establishing a reciprocal dependence which had a great stimulating effect on farm practices thus leading to the development of agro-urban communities where, burghers and peasants were brought into mutually beneficial economic relations (Johnson, 1970).

The Japanese were not left behind in the race for rural transformation. During the latter part of the 19th century and the early part of the 20th century the Japanese established a process that provides a functional interaction between agriculture and industry and therefore between rural and urban areas. Before the Meiji Revolution of 1868 most of Japan's population was made up of poor peasants but immediately after the Restoration, Japan achieved a substantial increase in agricultural output which led to the spread of more and more labour-intensive small-scale industries into the rural areas which in turn increased the cash earnings through a sensetive market network and consequently raised the standard of living and their desire to meet their rate of consuption which led to the industrialization of Japan. The dispersed rural industries engaged half of Japan's 5½ million farm families. The additional cash income therefore greatly increased the spending power and saving capacity of Japanese farm families and consequently improving the entire economy (Johnson, 1970).

Similar efforts of rural transformation were made in countries like Israel, Yugoslavia, China, Russia and Sweden and these yielded very useful results as testified by the developments in these countries.

The role of technical infusion and innovation cannot be over emphasized in the transformation of rural areas. Innovations and inventions which facilitate the faster improvement of nutrition health and sanitation, farming, construction of roads and houses, provision of drinking water, etc. are being introduced from time to time.

Most governments are increasingly getting more conscious of developing the rural areas. In Nigeria as in many African countries rural development is being given its rightful place in the National Development Plans of recent. For the first time, community development programmes were included in the Third National Development Plan of Nigeria. (1975 - 1980). Programmes included self help programmes like road construction, bridges, markets, schools etc. and government initiated programmes like village re-grouping, vocational training centres, etc.

2.31 <u>The Nigerian Example:</u>

After independence farm settlements were introduced in the then Western and Eastern regions of Nigeria in an effort to improve the agricultural practices of the rural areas. In 1964 the Mid-Western region launched a School Leavers' Farm and in the North Farm Institutes were established. All these were efforts by the government to improve the rural areas but unfortunately they were only one-sided efforts that is, they were mainly agricultural efforts.

In 1963 and 1964 the Western Region set up 16 "integrated" Rural Development Schemes. These hardly achieved anything but agricultural improvement.

In recent years policy instruments and research have been directed towards rural development. The Otta, and the Badeku Projects initiated by the Department of Agricultural Economics, University of Ibadan, the Uboma Project by Shell Company of Nigeria in collaboration with the former Eastern States Governments and the Ibarapa Project at Igbo-Ora (a medico-social approach to rural development, Olatunbosun, 1976) are all examples of piece-meal approaches to rural development as attempted in Nigeria.

Other attempts are the Isoya Rural Development Project of University of Ife, the Rural Change Project by the Rural Economics Research Unit of A.B.U., the Okpuje Rural Development Project implemented by the Faculty of Agricultural Sciences of the University of Nigeria Nsukka. There is little information on the impact of these projects but viewed either in terms of improved living standards or direct benefits (physically and economically), the population for which they were intended has not been fully brought into the mainstream of a complete and truely integrated rural development, (Olatunbosun, 1970).

Recent attempts in Nigeria are such large agricultural projects as the Funtua, Gombe, Lafia etc. All these are still basically approached from the agricultural side though they include some aspects of road construction and provision of drinking water mainly for livestock.

These rural development projects have not succeeded so much due to political bottlenecks, highly capital intensive nature of schemes, excessive centralization of planning and control, lack of local participation in dicision making and implementation and lack of integration and co-ordination among institutions and agencies of development.

2.32 The Kenyan Experience:

In Kenya the Special Rural Development Programme (SRDP) was introduced. It was administered from the central government initially but it failed because decisions taken in Nairobi had no regard for local needs and resource potentials and more over there was alot of duplication by various ministries because of lack of co-ordination.

Later the SRDP was re-organised to evolve an inter-ministered co-operation, comprehensive pilot programmes in an integrated approach and involve the rural population. Yet the SRDP ran into problems because apart from the Ministry of Finance and Economic Planning no other Ministry showed interest and this resulted in lack of adequate manpower, lack of funds and heavy reliance on foreign help. There was also the administrative bottlenecks as well as neglect of the rural people in decision making contrary to the laid down objectives of SRDP.

The failure of the scheme was basically due to the political system in Kenya in which the government felt that genuine rural development may have adverse political implications in a way of opposition from enlightened rural people on the few elites who benefit from the poverty of the masses.

2.33 The Tanzanian Case:

The Tanzanian introduced the "Ujamaa" Movement. This is basically the Chinese approach to rural development and the main aim is to promote rural socialism - a concept built around the belief that the traditional African extended family system represents an indigenous form of socialism. This concept rejects free enterprise and private property as foreign institutions without meaning in Tanzania. It believes that Tanzania can be developed along socialist lines within the framework of its unique social and cultural heritage. The goal of "Ujamaa" is an evolution of communal farm units based on social equality, self-reliance, co-operation and non-exploitation.

The village was the basic unit for the implementation of "Ujamaa". The various ministries responsible for rural development took decisions at the Headquarters and passed instructions down to field staff at the Provincial, Divisional and District level for implementation. Efforts were later made to decentralize the administration of the rural development programme in 1972 and this led to the reduction of the authority of the sectoral ministries, government representatives at the regional levels were granted wider responsibility for implementing the "Ujamaa". This made it possible for plans to be initiated from the grass-root level and passed through the district to the regional level before getting to the central authority for approval. Greater control over the allocation of human and financial resources was granted to the political party in power TANU and a provision of environment for achieving the economic and social aims of "Ujamaa" was created.

The success of the "Ujamaa" Movement lies in its effort to allow for regional authonomy and make use of indigenous human and financial resources. Also the commitment of the political leadership to rural development led to the success of the scheme.

There was of course where it failed. This was mainly in the opposition from small scale commercial farmers who were loosing government assistance. Also there was the lack of technical manpower for regional administration. There was inadequate efforts made for the formation of co-operatives and effective participation from the grass root. All the same the "Ujamaa" Movement can be said to be one of the most successful rural development programmes in Africa.

2.40 Conclusion:

Many more examples of rural development projects in Africa and other continents exist. Such include the Djoliba Scheme in Mali which is an effort to regroup the villages in Mali, the Volta River Resettlement Scheme in Chana, the Chilalo Agricultural Development all in Ethiopia and also the "Minimum Package Programme" in Ethiopia all set up with the objective of achieving economic and social development, enhancing local opportunities for participation in development, improving employment opportunities, ensuring attention is given to low income farmers and stressing the need for research, training and transferability in rural development.

In the whole it is possible to draw up common errors committed in rural development in developing countries. These include the low degree of participation of rural people in matters affecting them, lack of affective co-operative organisation, absence of suitable co-ordinating interministerial institution which could

have made the programmes effective problem solving strategies and the rural-urban migration problem, rural neglect and decay which were little solved by such programmes.

With the development of research units both by the Universities and agencies responsible for rural development and with recent progress shown towards giving rural development the push it deserves it can be hoped that the situation is going to improve in no small measure in the near future.

C H A P T E R 3

3.00 APPRAISAL OF THE FUNTUA AGRICULTURAL DEVELOPMENT PROJECT.

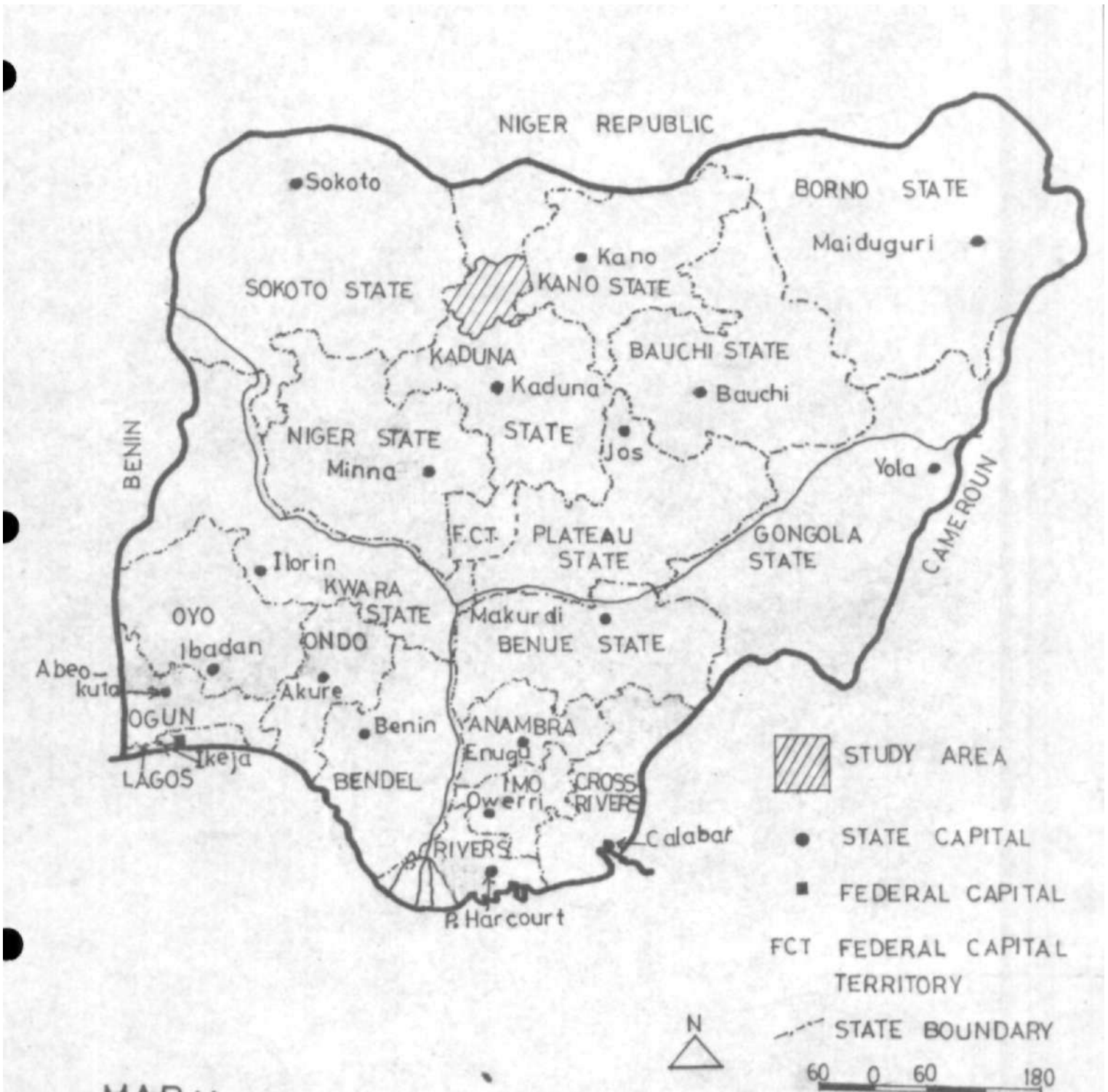
3.10 Location and Boundary of the Project Area:

The Project area located in Kaduna State of Nigeria occupies a semi-rectangular block of land between latitudes 11° 50' and 12° 20' N and longitudes 6° 50' and 7° 50' E. It covers an area of about 7,500 sq.km. (about 10% of the total area of Kaduna State) comprising both the Funtua Local Government Area and the Malumfashi Local Government Area in the old Katsina Province in the Northern part of Kaduna State. The area, sometimes referred to as Southern Katsina, is bounded in the north by Dutsin-ma and Kankiya Local Government Area in Kaduna State, in the West by Sokoto State, in the East by Kano State and in the South by Birnin Gwari and Zaria Local Government Area in Kaduna State. (see Maps 1 and 3).

3.20 The Administrative Set up at the State and Local Level:

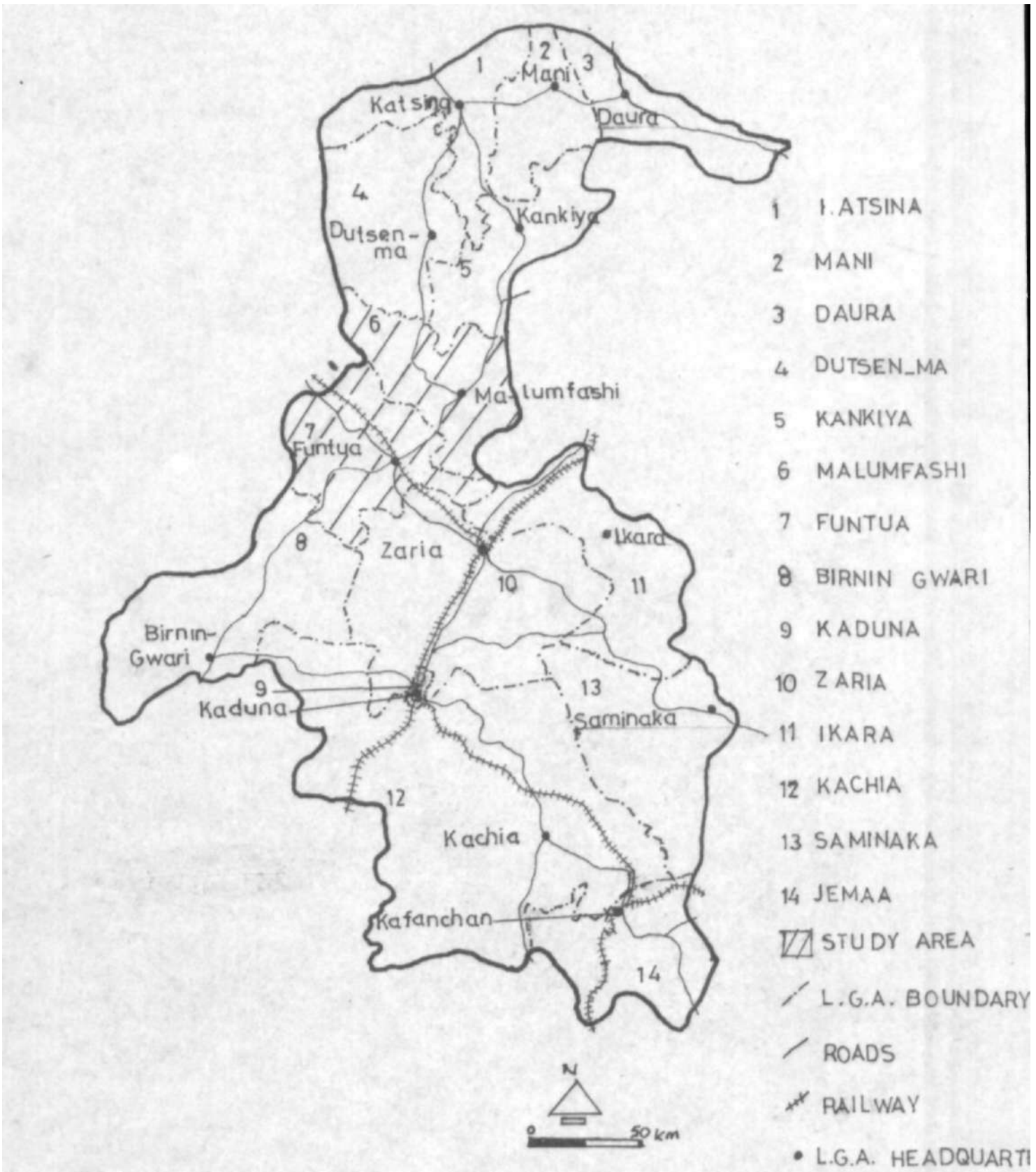
Kaduna State is one of the 19 States of Nigeria created in 1976. It is one of the ten States created out of what used to be Northern Nigeria. Kaduna State (formerly North Central State) is made up of the old Zaria and Katsina Provinces and it is divided into 14 Local Government Areas namely. Katsina, Mani, Daura, Kankiya, Dutsin-ma, Malumfashi, Funtua, Ikara, Saminaka, Jema'a, Kachia, Kaduna and Birnin Gwari. (see Map 2).

The study area is made up of Malumfashi and Funtua Local Government Areas under the Katsina Emirate. The Funtua Local Government Area is divided into three districts namely, Faskari, Funtua and Bakori districts. Funtua town is the Local Government



MAP 1:

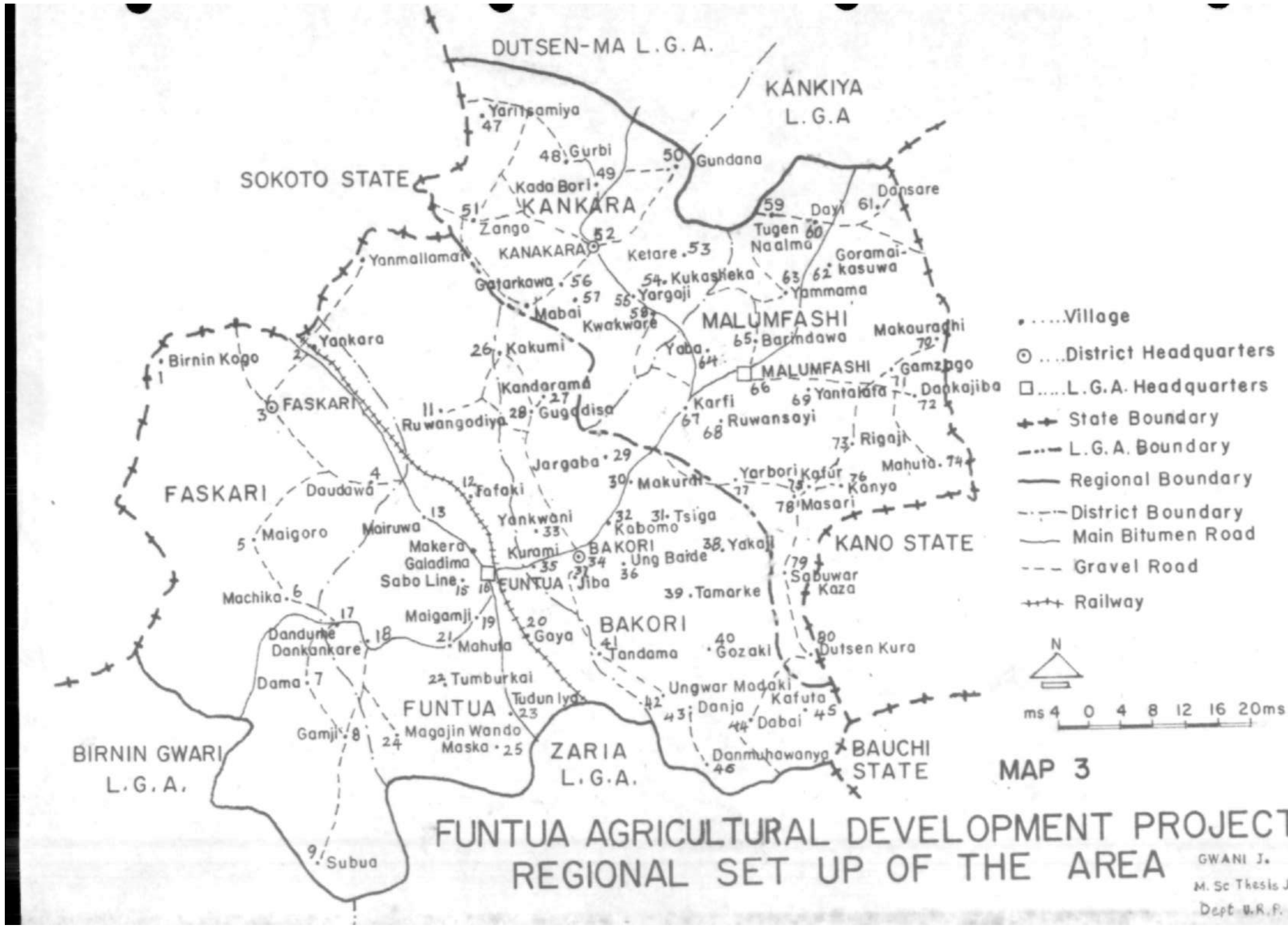
LOCATION OF STUDY AREA IN NIGERIA



MAP 2:

KADUNA STATE

LOCAL GOVERNMENT AREAS



MAP 3

FUNTUA AGRICULTURAL DEVELOPMENT PROJECT
REGIONAL SET UP OF THE AREA

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M. Sc Thesis June
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Headquarters while Bakori, Faskari and also Funtua are district Headquarters. Malumfashi Local Government Area is made up of two districts namely:- Kankara and Malumfashi. Malumfashi town is the Local Government Area Headquarters while Kankara and also Malumfashi are district Headquarters.

The study area is made up of 30 main villages and about 697 sattelite villages. (see Map 3).

With the Local Government reforms introduced in 1976 each Local Government Area is administered by an elected Local Government Council headed by a Chairman. There are Emirate councils or Traditional Councils made up of natural rulers who play the role of advisers to the Local Government Council on whom executive powers are vested.

Each Local Government Council is answerable to the State Government while the Districts Councils are responsible to the Local Government Council. Each district has a number of villages under it, headed by village heads who are responsible to the district heads. So the hierarchy of administration starts from the compound heads through the ward heads, the village heads, the district heads, the Local Government Councils to the State Government which is responsible to the Federal Authority.

As representatives of the people and the Local Government, village heads have great political influence in the rural areas. Although this influence is being reduced by recent reforms and people becoming more aware of their rights, it is still being recognised by a large number of the rural communities who accept these heads as their representatives through whom the Government can channel its programmes in the rural areas.

3.30 Socio-Cultural Back-Ground of the Area:

The study area is predominantly Hausa and Fulani most of whom are devout muslims. A few other tribes have migrated into the area and are mainly found in the Local Government Area Headquarters or the district headquarters engaged either in commercial activities or working in government offices.

According to the 1963 Census the population of the area was about 698,748 and this was estimated to have increased to 905,000 in 1974 and 998,951 in 1978 using a growth rate of 2.5% annually.[1]

Data on the family sizes in the project area is scarce. The World Bank carried out a Survey in 1974 and puts it at an average of 6.5 persons per family and it is on this basis that the 1978 population was estimated using a round figure of 7 persons per family.

The number of farming families in the area is currently estimated to be 85,486 out of about 100,000 families.

The compound forms the physical basis of the traditional Hausa residential unit and it is a group linked through the male line. A compound may consist of one or more families eating collectively or as separate families.

All compounds follow the same basic physical pattern of "Zaure", fore-court, and inner compound but the compounds vary in sizes.

The major occupation is farming and cattle rearing and the major crops are grain crops. But since the area is predominantly

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1. Kaduna State Statistical Year Book 1975.

muslims, many of the women are in house purdah and are therefore not very active in the farming sector. The women engage themselves in weaving, crafts and other secondary occupations around the house.

3.40 Physical Features and Climate:

The relief of the study area forms part of the extensive Northern Plains known as the Hausa High lands. The land is largely undulating with sloping generally between 600 metres (2000 feet) and 360 metres (1200 feet). The change in height is so gradual that it can only be registered in most places by the use of an aneroid barometer. (see Map 4).

Certain places contain chains of quartzatic and granitic rocks which rise about 60 to 200 metres above the immediate surrounding plains. These inselbergs are probably the result of older granites intruded into the basement complex and subjected to long periods of denudation (Max Lock 1978).

There are very many small streams which disect the area. Some of these streams are seasonal while others carry water all year round. Most of these streams can be damed.

Most of the soil is leached ferruginous tropical soil with well developed sub-soil horizons containing some 30% clay. (see Map 5). Drainage is not very bad and is greatly aided by a few gentle water sheds (World Bank 1974).

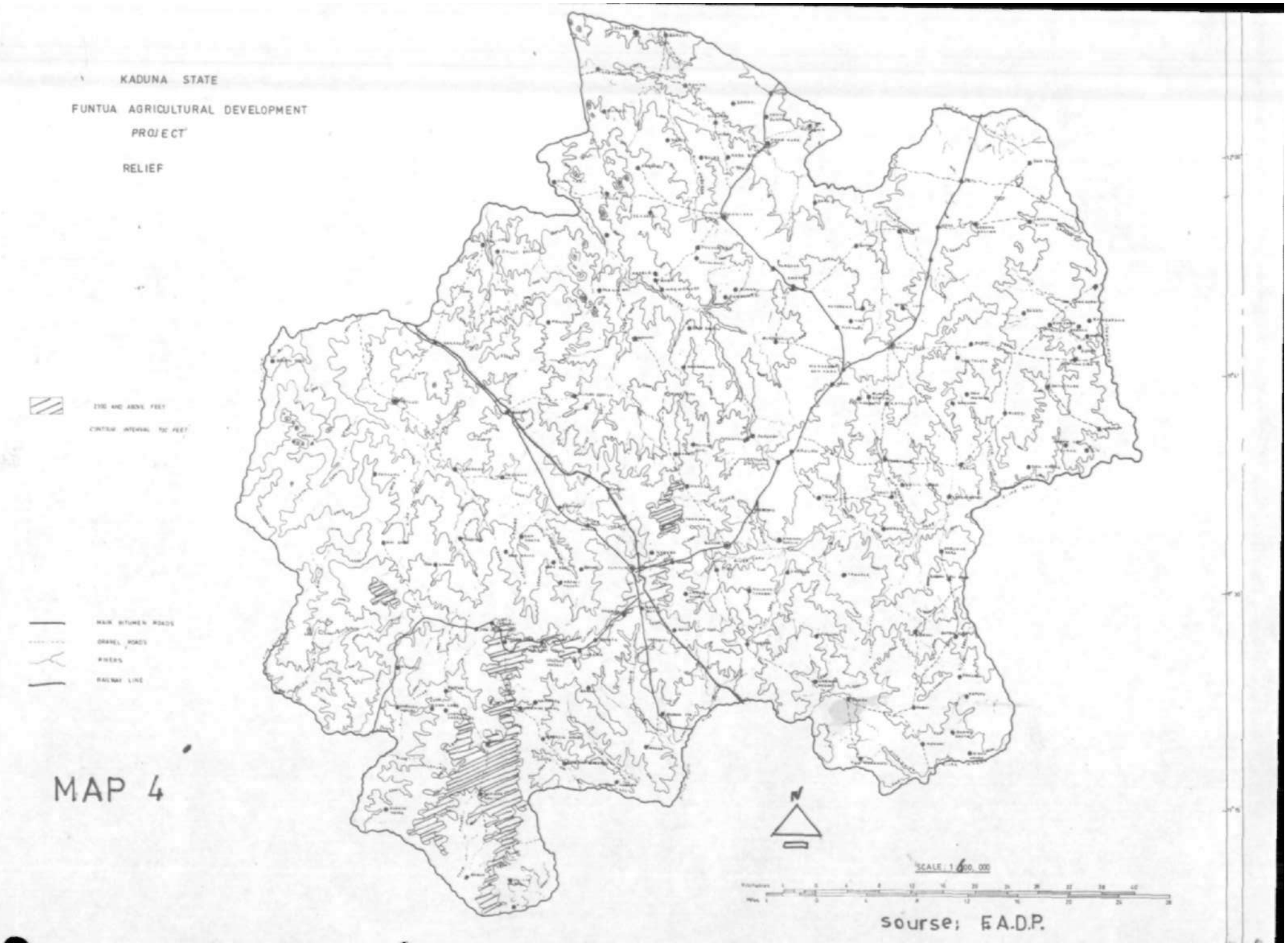
The vegetation is mainly Savanna woodland typified by "Isoberlinia doka" and grasses mainly of "Andropogon" and "Hyparrhenia" species. Due to clearing for farming the Savanna has been replaced in most places by parkland dominated by such trees as "Parkia Clappertoniana" and "Adansonia digitata" (Baobab).

KADUNA STATE

FUNTUA AGRICULTURAL DEVELOPMENT

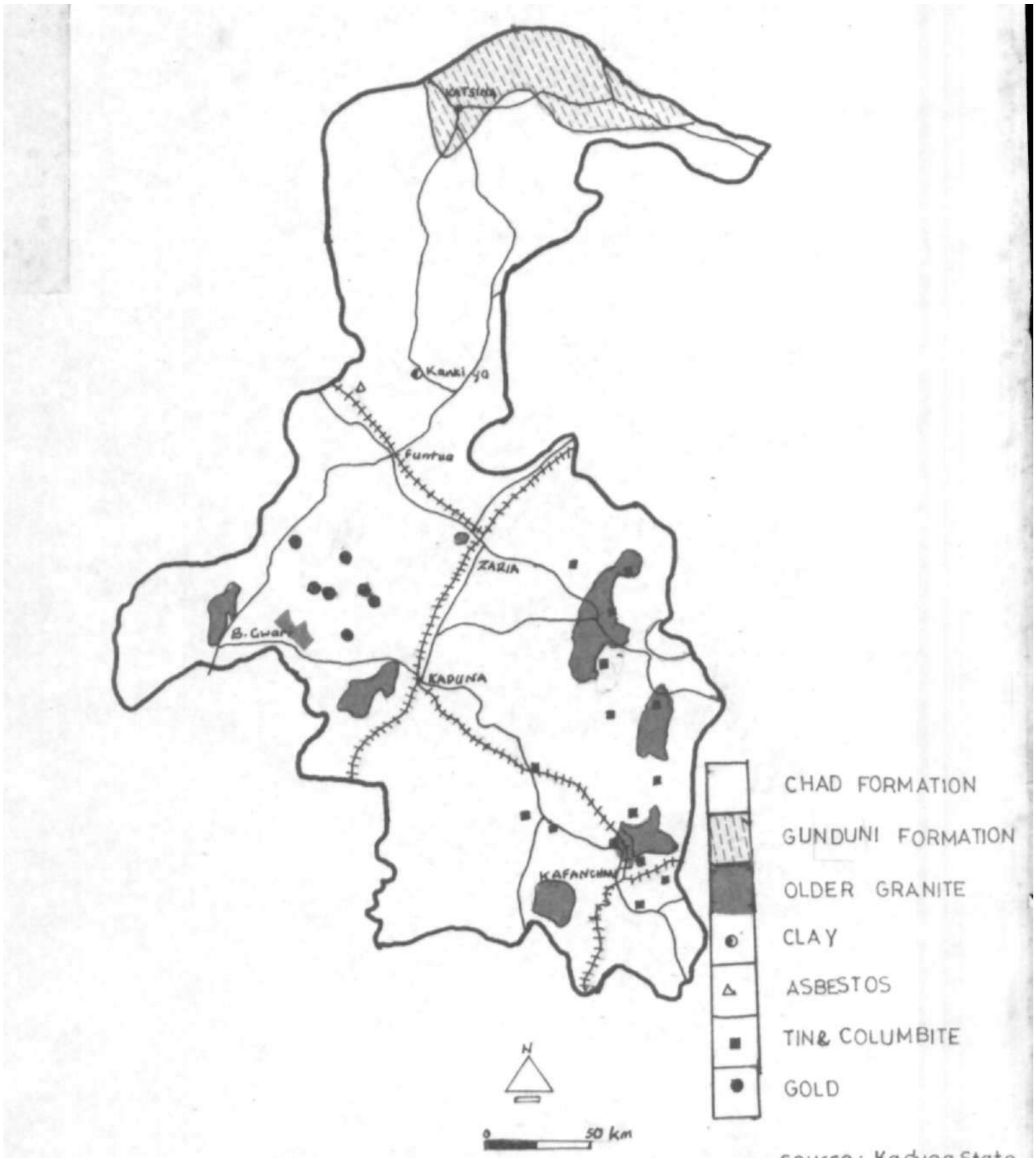
PROJECT

RELIEF



MAP 4

Sourse; F.A.D.P.



source: Kaduna State Min. for Eon. Dev.

MAP 5:

KADUNA STATE
GEOLOGICAL MAP

These trees are protected by law and provide valuable dietary supplements from seeds and leaves. In wetter areas, spear grass ("Imperata Cylindrica") is found. (World Bank Report, 1974).

The Climate:- The study area falls within the tropical continental climatic zone with a total annual rainfall of over 40 inches spread over 6 months around April to September. Generally the climate varies from time to time. There is cold dry season brought in by the northeasterly winds called "harmattan" between December and February, and a hot and harsh dry season with occasional rains between March and May. This is followed by the warm wet season from June to September.

During the months of December to February the temperatures are low, the winds are dry and dusty. The temperatures are high between March and May sometimes exceeding 37°C or 99°F when the sun is overhead.

3.50 Natural Resources and Land Use in the Area:

There is a large forest reserve to the South-West of the study area. A few pockets of other forest reserves are scattered over the study area (see Map 6).

Deposits of asbestos and clay have been identified in the area but their quantity is yet to be determined. (see Map 5).

So the most important natural resources in the area include the human population which is estimated to be about 998,951 in 1978, the good soil for cultivation and the livestock. Tables 2 and 3 show how important grain crops and cattle have been in the economy of the Northern States in general.

TABLE 2

Selected Major Exports 1961 - 1971

Commodity	QUANTITY EXPORTED			UNIT VALUE (Nigeria Pound £N)			TOTAL VALUE (£N Million)		
	1961	1966	1971	1961	1966	1971	1961	1966	1971
Groundnuts (Tons)	494	573	134	65.2	71.2	90.3	32.2	40.8	12.1
Groundnut Oil (Tons)	45	108	42	110.9	92.8	152.5	5.0	10.0	6.4
Groundnut Cake (Tons)	75	133	98	25.7	15.4	34.7	1.9	4.7	3.4
Petroleum Oil (Tons)	2224	18945	70570	5.2	4.9	6.8	11.5	92.0	476.5
Raw Cotton (Tons)	46	23	22	239.7	231.3	250.0	11.1	3.2	5.5
Cotton Seed (Tons)	-	66	96	-	28.4	32.3	-	-	-
Hides & Skins (Cwt)	240	163	77	-	35.3	31.2	4.1	5.8	2.4
Total including Oil & Other Exports	-	-	-	-	-	-	170.1	278.7	640.4
Total Excluding Oil	-	-	-	-	-	-	158.6	186.7	163.9

Source: World Bank Economic Report "NIGERIA: OPTIONS FOR LONG TERM DEVELOPMENT 1974"

TABLE 3

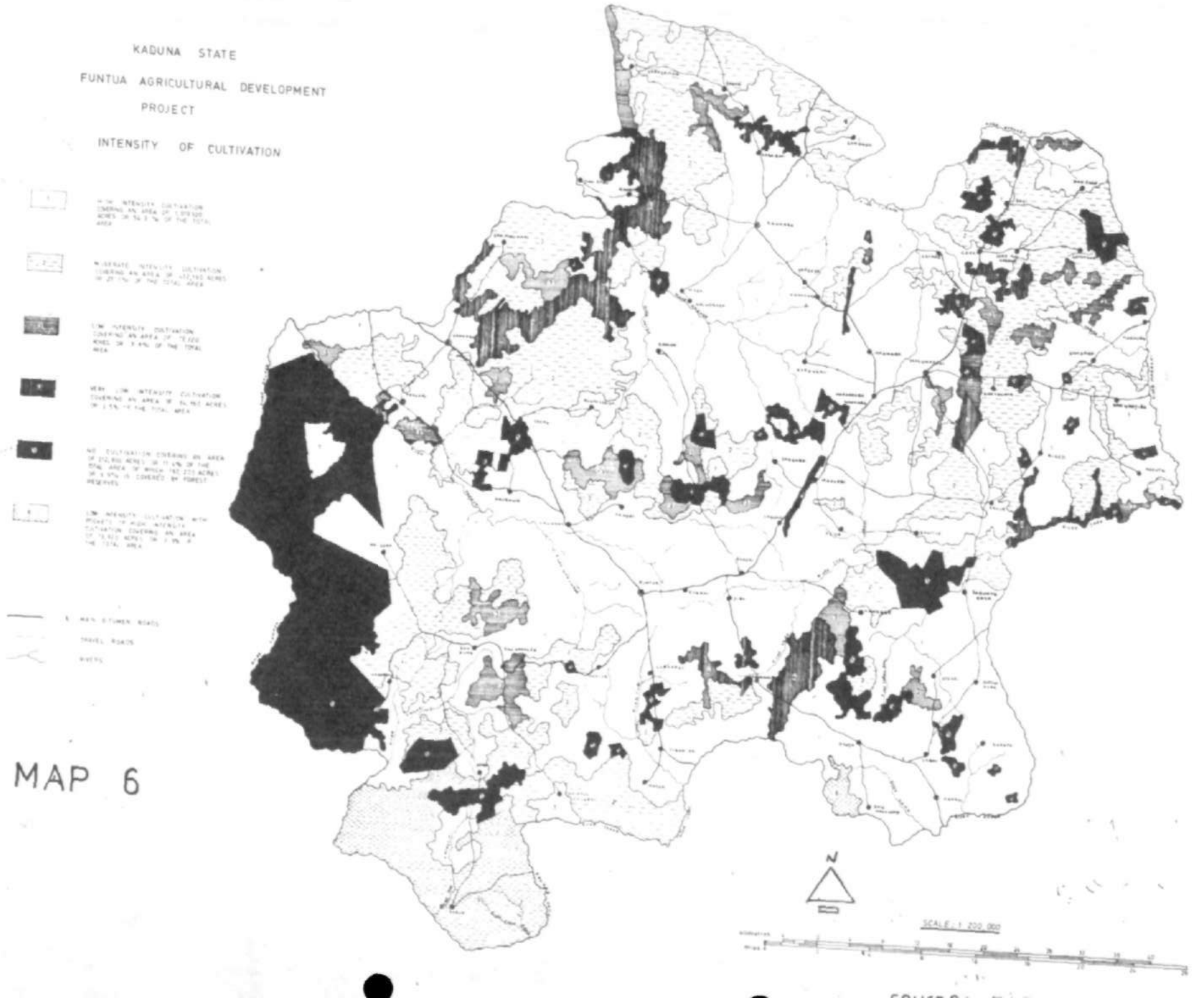
A REGIONAL TRADING BALANCE (£N'000)

Commodity Groupt	Lagos	West	North	East	Midwest
Manufactured Goods	+13000	-4800	-4000	-1300	-5500

KADUNA STATE

FUNTUA AGRICULTURAL DEVELOPMENT PROJECT

INTENSITY OF CULTIVATION



MAP 6

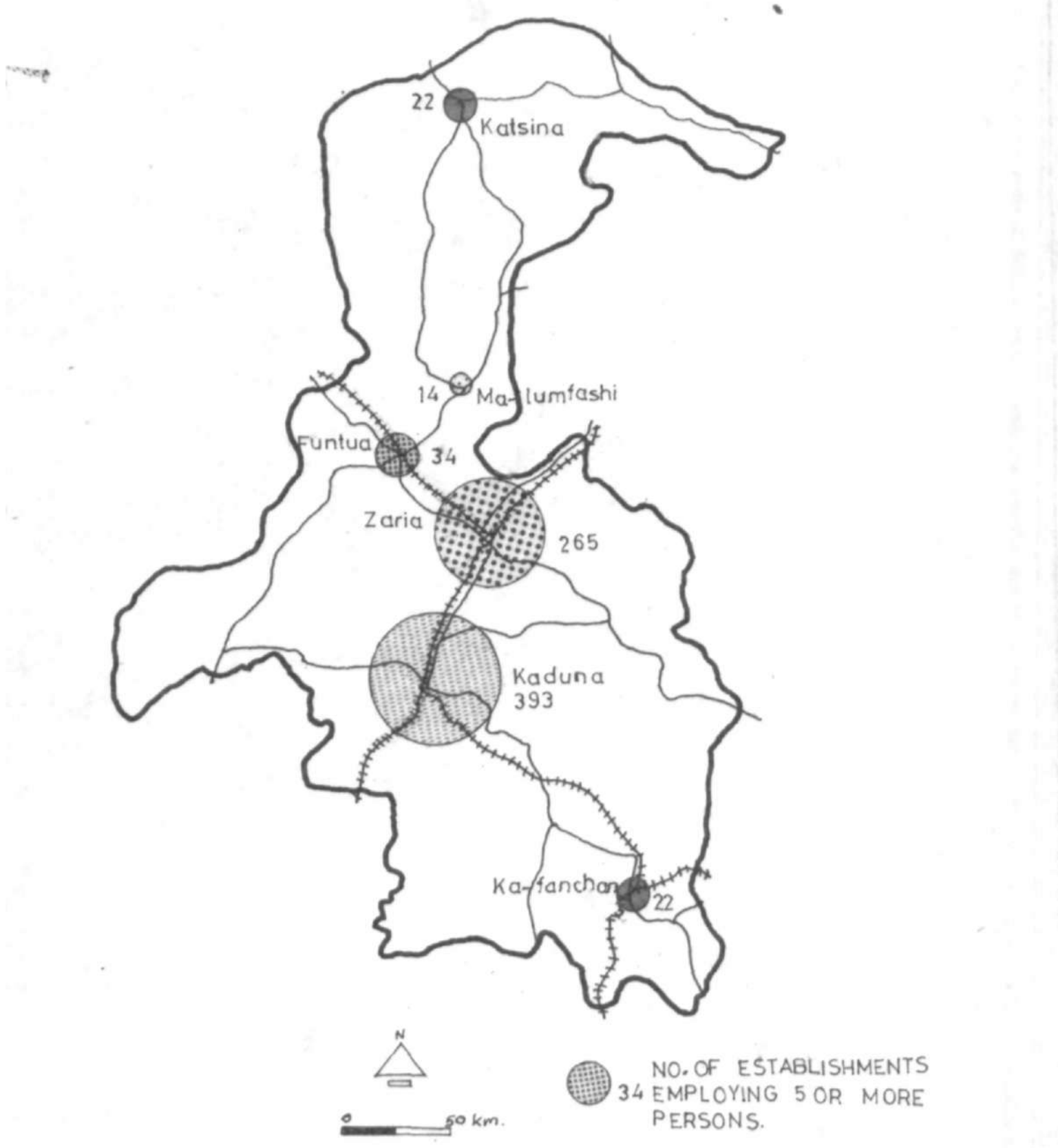
As already mentioned elsewhere, the most important land-use is agriculture. About 64% of the Project Area, that is 486,058 hectares, is cropped leaving only 36% for other uses. Of this 36% left most of it is taken up for Residential and other public land uses. The forest reserves occupy some of it too. The exact proportions taken up by other uses is not known because no through study has been made. Map 6 shows the intensity of cultivation in the project area.

The concentration of other activities employing five or more persons are only in Funtua and Malumfashi as revealed by the Ministry of Economic Planning in Maps 7 and 8. This suggests that only these two towns in the area are already becoming urbanised and at the same time having up to 23.7% and 11.4% of their population respectively in the agricultural sector. (Max Lock, 1978).

3.60 The Economy of the Area:

It is already an established fact that Nigeria is fast growing both in terms of human population and its economic wealth. Table 4 indicates the growth rates of the major sectors of the economy in Nigeria between 1971 and 1975. As can be seen the average growth rate of the Gross Domestic Product (G.D.P.) during this period was 11.2% per annum. From a regional point of view, however, it is the different component growth rates that are of particular interest because not all the major sectors are evenly distributed across the country.

Taking the sectoral distribution therefore, it can clearly be seen that some activities have grown very much faster than others. For example construction, mining and public utilities in particular have shown growth rate that are higher than average.

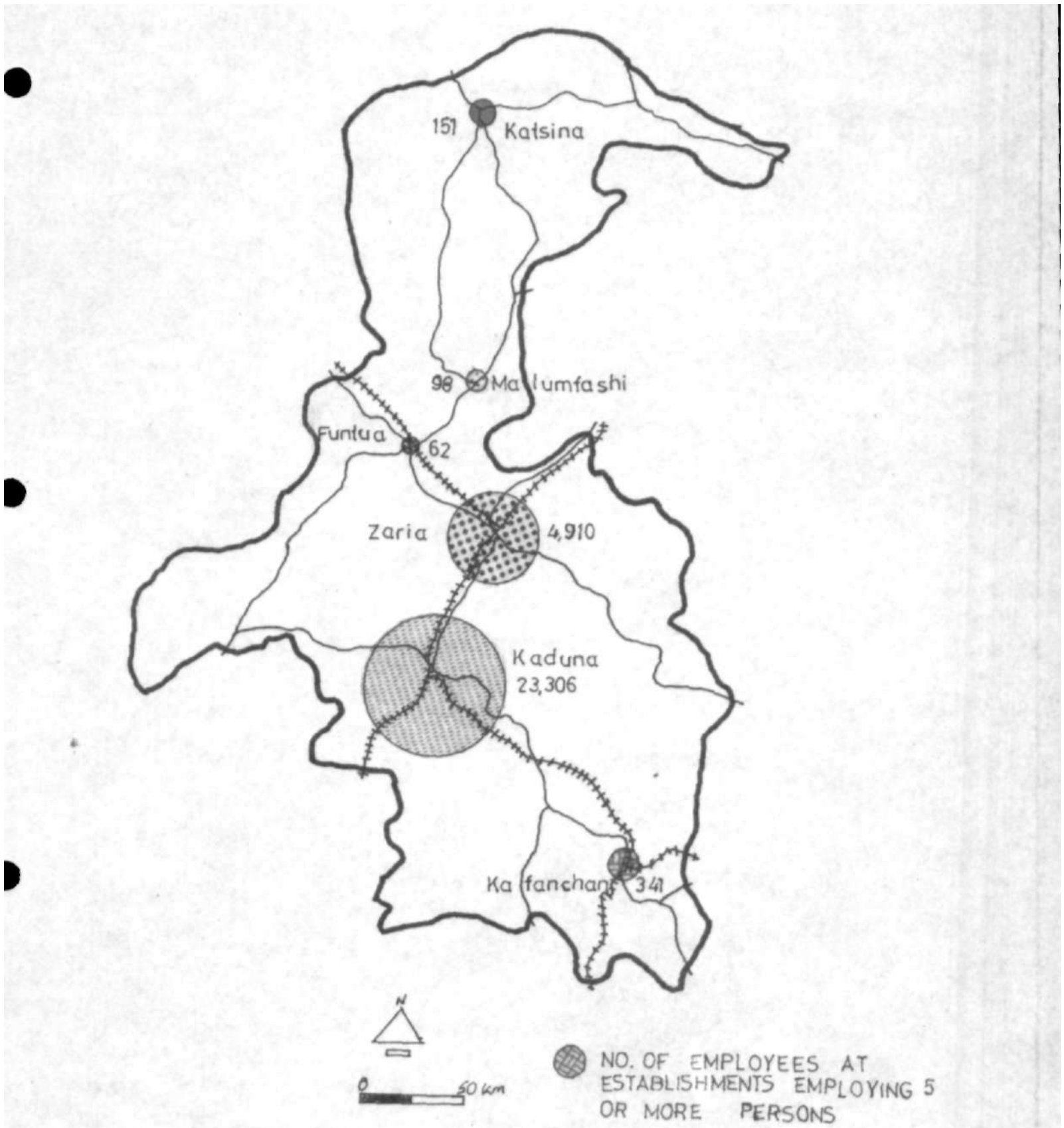


source: Kaduna State Min. for Econ. Dev. 1975

MAP 7:

KADUNA STATE
NŌ. OF PERSONS IN ESTABLISHMENTS
EMPLOYING 5 OR MORE PERSONS

Gwani J.



MAP 8:

Source: Kaduna State Min. for Econ. Dev. 1975

KADUNA STATE ESTABLISHMENTS EMPLOYING 5 OR MORE PERSONS

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TABLE 4: Growth rates of Gross Domestic Product at Constant 1974-75 Prices

(All in Percentages)

Sector	1971-72	1972-73	1973-74	1974-75	Average Annual Growth rate
Agriculture	5.2	-6.3	-3.2	3.9	-0.4
Mining & Quarrying	40.4	18.4	13.9	10.5	20.8
Manufacture & Crafts	3.1	23.9	9.9	9.2	11.5
Electricity & Water	20.6	18,8	22.6	12.9	18.7
Build & Construct	41.2	23.2	25.3	15.6	26.3
Distribution	6.2	- 2.7	3.2	6.7	3.6
Transportation & Communication	21.8	23.0	8.0	16.8	17.4
General Government	3.4	-10.3	38.6	18.0	12.4
Education	15.0	2.0	3.4	20.4	1..2
Health	3.3	24.4	19.1	20.2	16.8
Other Services	13.8	13.8	13.7	9.4	12.7
Average Annual Growth Rate of G.D.P.	18.4	7.3	9.5	9.7	11.2

Source: Third National Development Plan, Lagos, 1975.

On the opposite, agriculture, which is the mainstay in the study area, has stagnated during the period in question.

At the National level, the study area plays an important but diminishing role with respect to foreign earnings through the production of export commodities like cotton, groundnuts and Hides and Skin. This is so because most of these commodities are being consumed locally by our industries.

Table 5 shows the changing composition of the country's major exports between 1961 and 1971. In 1961, as can be seen, oil contributed only about one third as much as groundnuts to foreign earnings in Nigeria but by 1971 oil earnings in Nigeria were twenty two times greater than those from groundnuts.

As has been emphasized, agriculture is the most important economic base of the study area though places like Funtua and Malumfashi towns tend to show a drift towards urbanisation and the economic activities that go with it. It is therefore necessary in looking at likely developments in agriculture to think of the impact of other activities plus the demand for services and facilities that will arise as a result of increased agricultural production or in the event of failure to compliment it.

The economy is also affected by the population size and characteristics such as age, sex and educational attainment. These will provide profile of the quality and quantity of labour force. Map 9 shows the distribution of population in the study area.

In a study carried out by Max Lock Group in 1977/78 in Funtua and Malumfashi towns of the study area, the potential labour force of the area was said to make up about half of the population.

TABLE 5

SELECTED MAJOR EXPORTS 1961 - 71

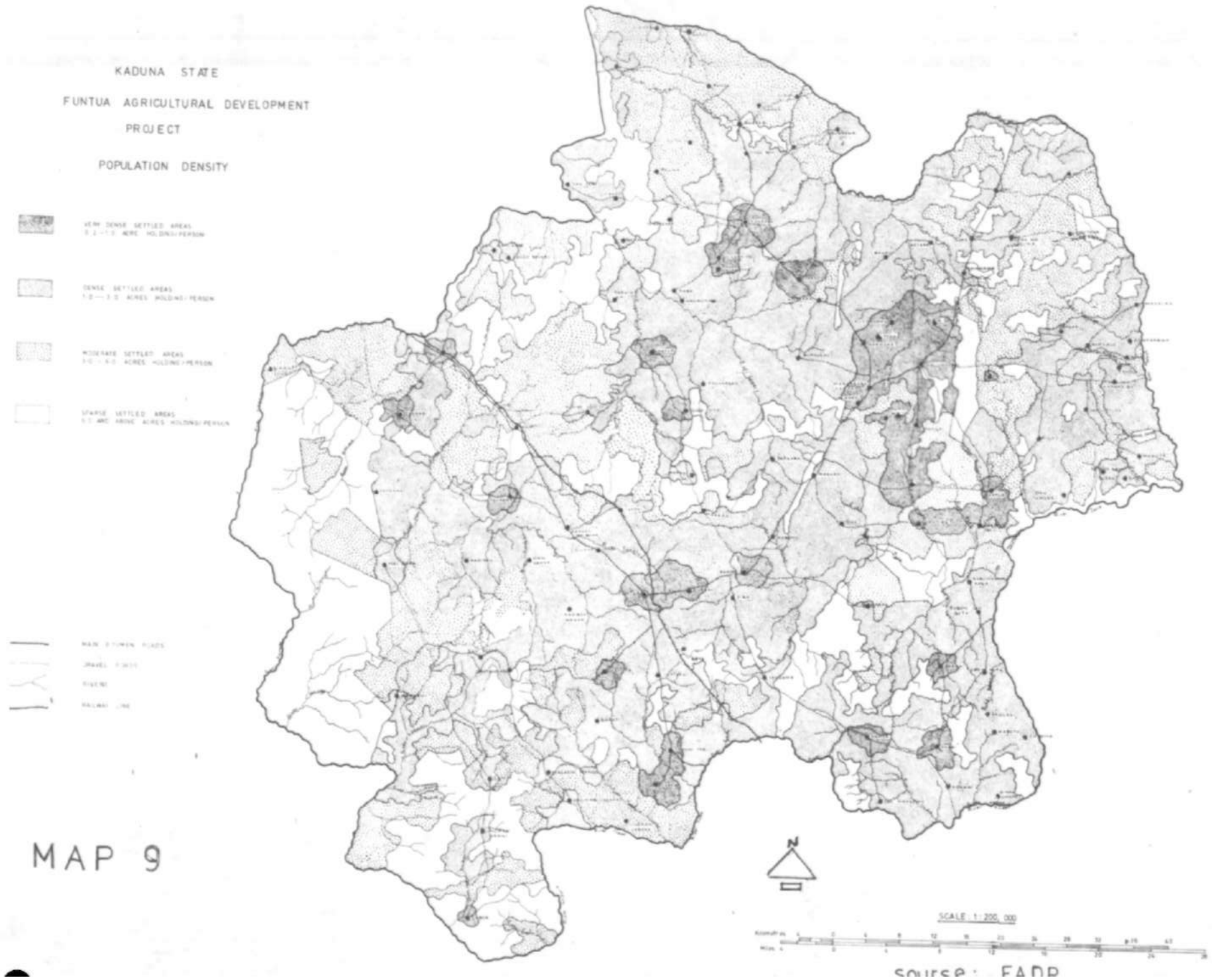
Commodity	QUANTITY EXPORTED			UNIT VALUE (Nigeria Pound)			TOTAL VALUE (Nigeria Million)		
	1961	1966	1971	1961	1966	1971	1961	1966	1971
Groundnuts (Tons	494	573	134	65.2	71.2	90.3	32.2	40.8	12.1
Groundnuts Oil (Tons)	45	108	42	110.9	92.8	152.5	5.0	10.0	6.4
Groundnuts Cake (Tons)	75	133	98	25.7	35.4	34.7	1.9	4.7	3.4
Petroleum Oil (Tons)	2224	18945	70570	5.2	4.9	6.8	11.5	92.0	476.5
Raw Cotton (Tons)	46	23	22	239.7	231.3	250.0	11.1	5.2	5.5
Cotton Seed (Tons)	-	66	96	-	28.4	32.3	-	•	-
Hides & Skins (Cwt)	240	163	77	-	35.3	31.2	4.1	5.8	2.4
Total Including Oil & Other Exports	-	-	-	-	-	-	170.1	278.7	640.4
Total Excluding Oil	-	-	-	-	-	-	158.6	186.7	163.9

Source: World Bank Economic Report "NIGERIA OPTIONS FOR LONG TERM DEVELOPMENT 1974."

KADUNA STATE

FUNTUA AGRICULTURAL DEVELOPMENT PROJECT

POPULATION DENSITY



MAP 9

SCALE 1:200,000

SOURCE : FADP

Table 6 shows that the potential labour force lies within the ages of 15 and 54. This indicates that the area has a great potential for development since there is a large number of potential labour force that can easily be utilized.

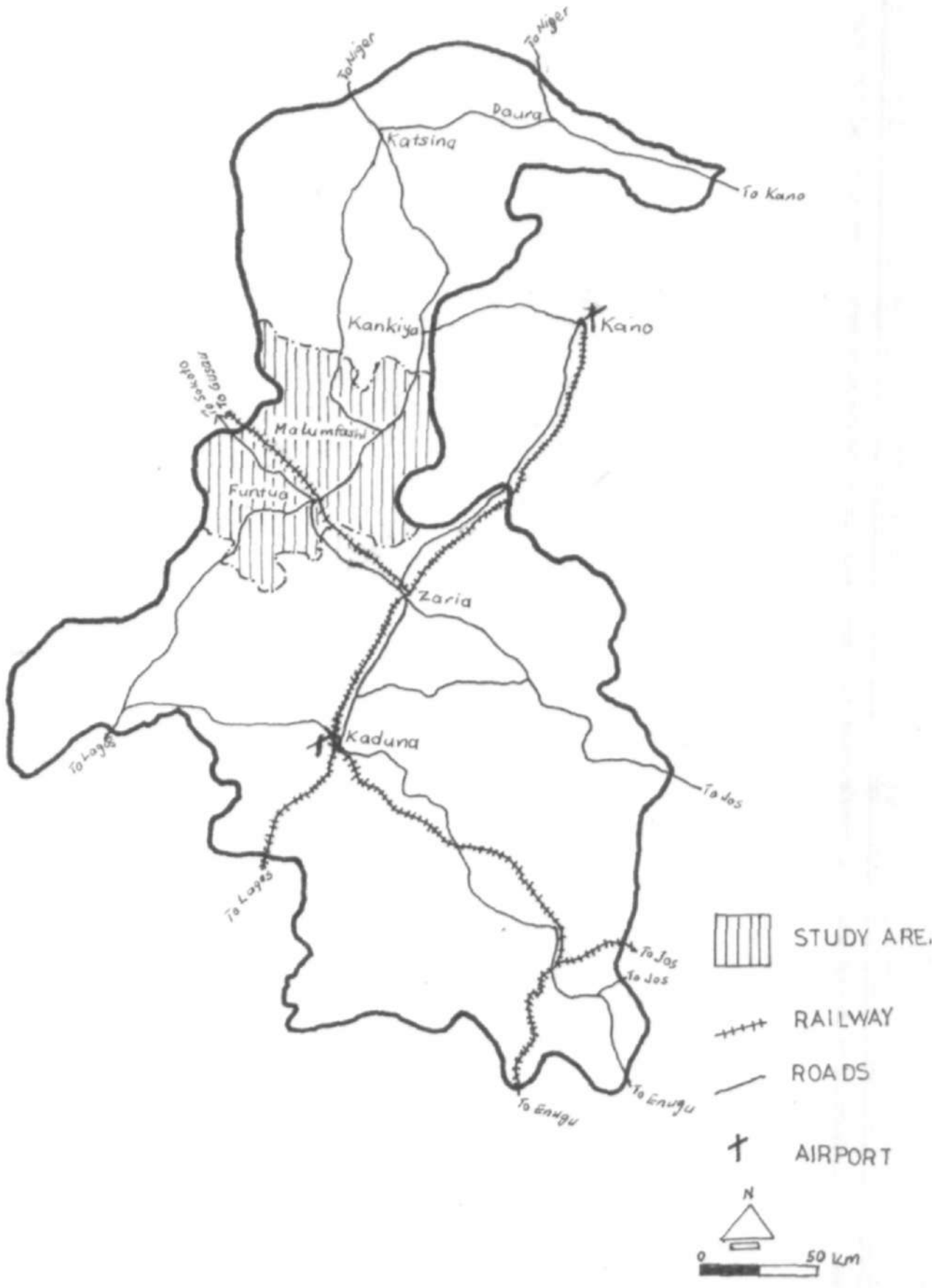
The project area is well served by main roads (Map 10). There is a railway running from Zaria and cutting across the study area to Kaura Namoda in Sokoto State. The major roads link the study area directly with Sokoto and Kano States and also with Niger Republic through Katsina. The area also enjoys the nearness of the Kano International Airport which is just a couple of hours drive from Funtua.

Besides these major transport routes, the minor roads are not existing or are in very poor repairs. (see graph 1). This cuts off the communities seasonally from each others and the rest of the world. The effect of such a situation on physical and economic development cannot be over emphasized.

A few financial institutions exist in the area. There are a few Commercial Banks in Funtua and Malumfashi towns. There is also the Co-operative Credit and Marketing Union with several affiliated societies that serve the area. Most of the Markets in the area operate on weekly basis.

3.70 Establishment of the Funtua Agricultural Development Project:

Under the background information described above and in chapters 1 and 2, the government thought it necessary to establish the Funtua Agricultural Development Project. With the present economic trend and the associated industrial growth,



MAP 10:

KADUNA STATE

MAJOR TRANSPORT ROUTES

TABLE 6: Funtua Social Survey Sample: The Potential Labour Force and the Age and Sex Distribution of the Sampled Population.

Age	Male	Female	Total	& of Total Population	
0- 4	191	178	369	17.3	
5- 9	178	154	332	15.6	
10-14	164	84	249	11.8	
15-24	143	209	352	16.6	
25-34	140	199	339	15.9	Potential
35-44	121	114	235	11.0	Labour Force
45-54	86	46	132	6.2	(P. L. F.)
55+	74	44	118	5.5	
Not known	2	1	3	0.1	
Total	1099	1030	2129	100.0	
Total &	51.7	48.3	100.0		
Total P.L.F.	490	568	1058		
P.L.F. & of Total	46.3	53.7	100.0		

Note: Percentages may not total 100 due to rounding.

Source: Max Lock, 1978.

industry and the urban population are becoming more and more dependent on the rural population for assured food and industrial crop supplies and yet the gap in income earnings between the urban and the rural people is widening everday. It is the effort towards effecting a balance or a closing up of this gap in physical, social and economic development between the rural and urban areas that the Funtua Agricultural Development Project was established through a request by the Federal Military Government of Nigeria to the International Bank for Reconstruction and Development. The Funtua Agricultural Development Project was finally established as a joint project between the Federal military Government, World Bank and Kaduna State Government by edict No. N.C.S.L.N. 5 of 1975 (see appendix).

Before this time the Kaduna State Government has been involved in rural development and settlement programmes mainly in the form of financial, field staff, organisational and technical assistance to the rural communities. This is done through the various Ministries and departments and the activities of these Ministries and departments used to be co-ordinated by a statutory board called the Rural Development Bureau. Today the functions of this Bureau are vaque because there is now a department for Rural Development formally with the Ministry of Economic Planning and now with the Ministry of Agriculture.

3.71 Aims and Objectives of Funtua Agricultural Development Project:

The main objectives of the Funtua Agricultural Development Project as contained in the edict are:-

(a) Development of Funtua and Malumfashi Local Government Areas with a view to increasing production of Agriculture and raising the living standard of the rural population.

(b) Construction of roads, water supplies, and soil conservation works associated with agricultural development.

(c) Development and management of seed multiplication forms.

(d) Training of project staff and farmers.

(e) Provision of village service centres and stores.

(f) Provision of extension, Credit and Marketing Services.

(g) Procurement of farm imputs.

(h) Development of supporting infrastructure such as houses, buildings, offices and others for the above services.

3.72 Organisation, Management and Financing of the Project:

The Funtua Agricultural Development Project is controlled by an Executive Committee whose membership include the following:=

(i) Permanent Secretary Ministry of Agriculture and Rural Development as Chairman.

(ii) A representative of the Ministry of Works.

(iii) A representative of the Ministry of Finance.

(iv) A representative of Kaduna State Water Board.

(v) A representative of Ministry of Trade, Industry and Co-operatives.

(vi) A representative of the Ministry of Economic Planning.

(vii) A representative of the Local Authority.

(viii) Director of Federal Department of Agriculture or his representative.

(ix) Chief Agricultural Officer Kaduna State.

(x) Two members from the project area to be appointed by the Kaduna State Government.

(xi) The Project Manager.

(xii) The Project Chief Administrative Officer as Secretary.

The Funtua Project Executive Committee is responsible to the Commissioner for Agriculture and Rural Development. The Project Management is responsible to the Project Executive Committee in the day to day running of the Project. (see Edict in Appendix).

Fig. 1 explains the organisational structure of the Funtua Project Management.

3.73 ACTIVITIES OF THE PROJECT:

A. Planned Programmes:

Following the establishment of the Funtua Agricultural Development Project, the following programmes were planned:-

(a) 1,000 km. of laterite roads.

(b) 60 earth dams.

(c) 1 Administrative Centre.

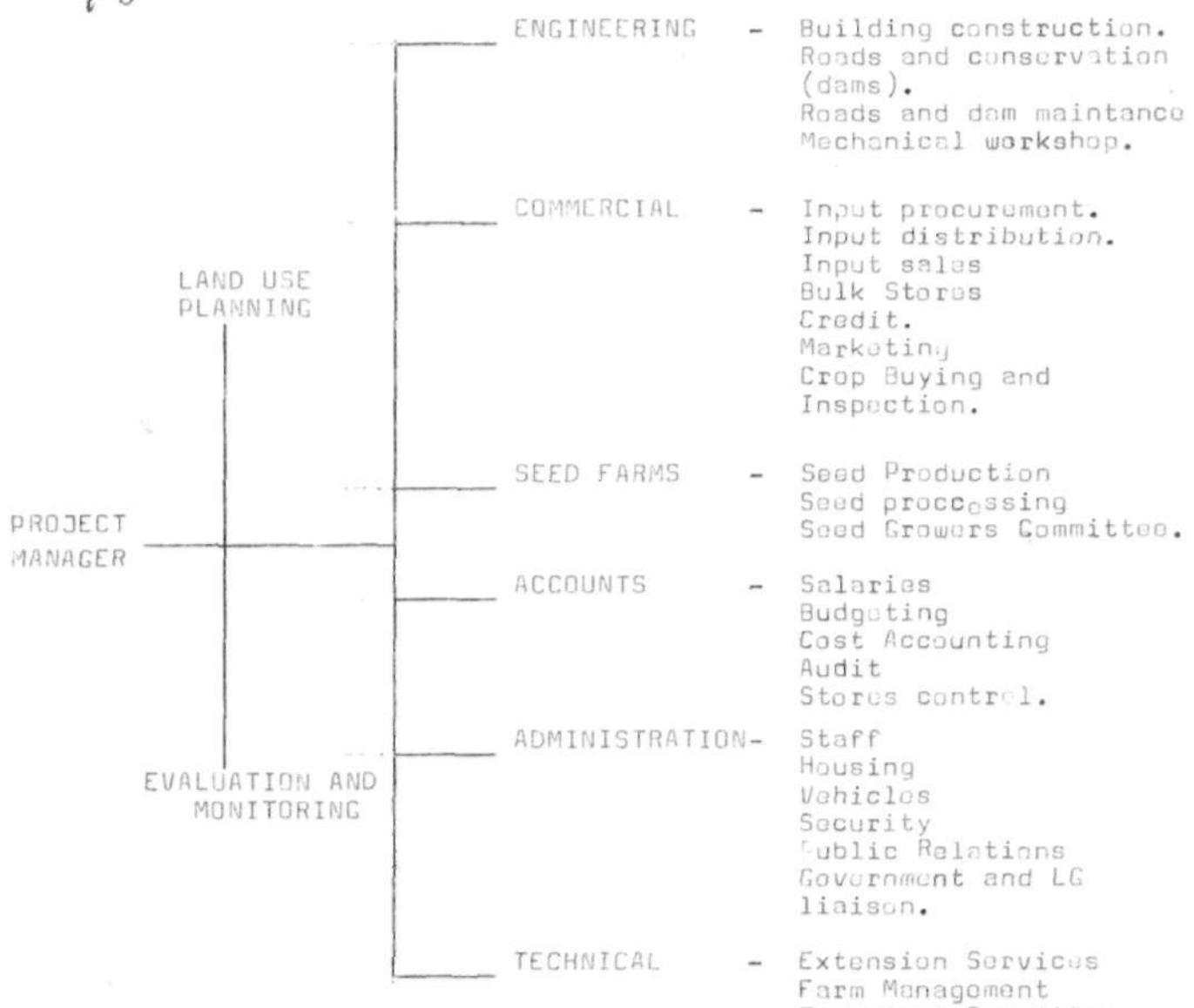
(d) 5 Development Unit Centres.

(e) 72 Farm Centres to be distributed on the basis that the village head is recognised and paid by the Local Government.

(f) 2 Seed multiplication farms.

(g) Staff houses.

Fig 1 FUNTUA AGRICULTURAL DEVELOPMENT PROJECT ORGANOGRAM



(h) Support Services in the farm of:-

(i) Extension Staff

(ii) New Credit Facilities.

(iii) Marketing Facilities.

(i) Farm inputs for sell to farmers.

(j) Evaluation Unit.

The programmes were to be executed over the planned period of 5 years, 1975 - 1980 and then subsequent plans to be drawn later.

B. Achievement So Far:

The projects which were initially planned for the first 5 years took off in 1975/76 and by December 1978, that is more than half way into the 4th year of its existance the Funtua Agricultural Development Project has achieved the following:-

(a) The average farm size has increased from the pre-project size of 3.9 hectares to 5.69 hectares.

(b) 325 km. of primary feeder roads constructed.

(c) 30 out of the 60 earth dams completed.

(d) All 72 Farm Service Centres completed.

(e) The 2 Seed Multiplication farms at Malumfashi and Daudawa established.

(f) 2 Training Schools at Daudawa and Malumfashi established.

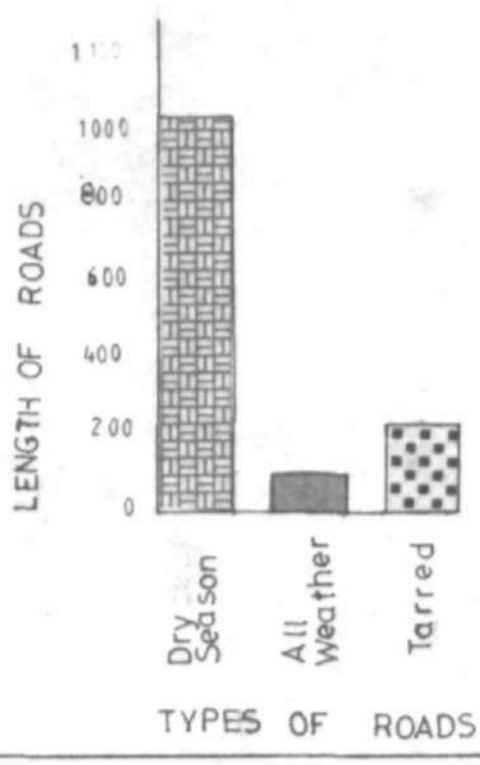
(g) A fully operating Evaluation Unit.

(h) 5 development Centres at each district headquarters.

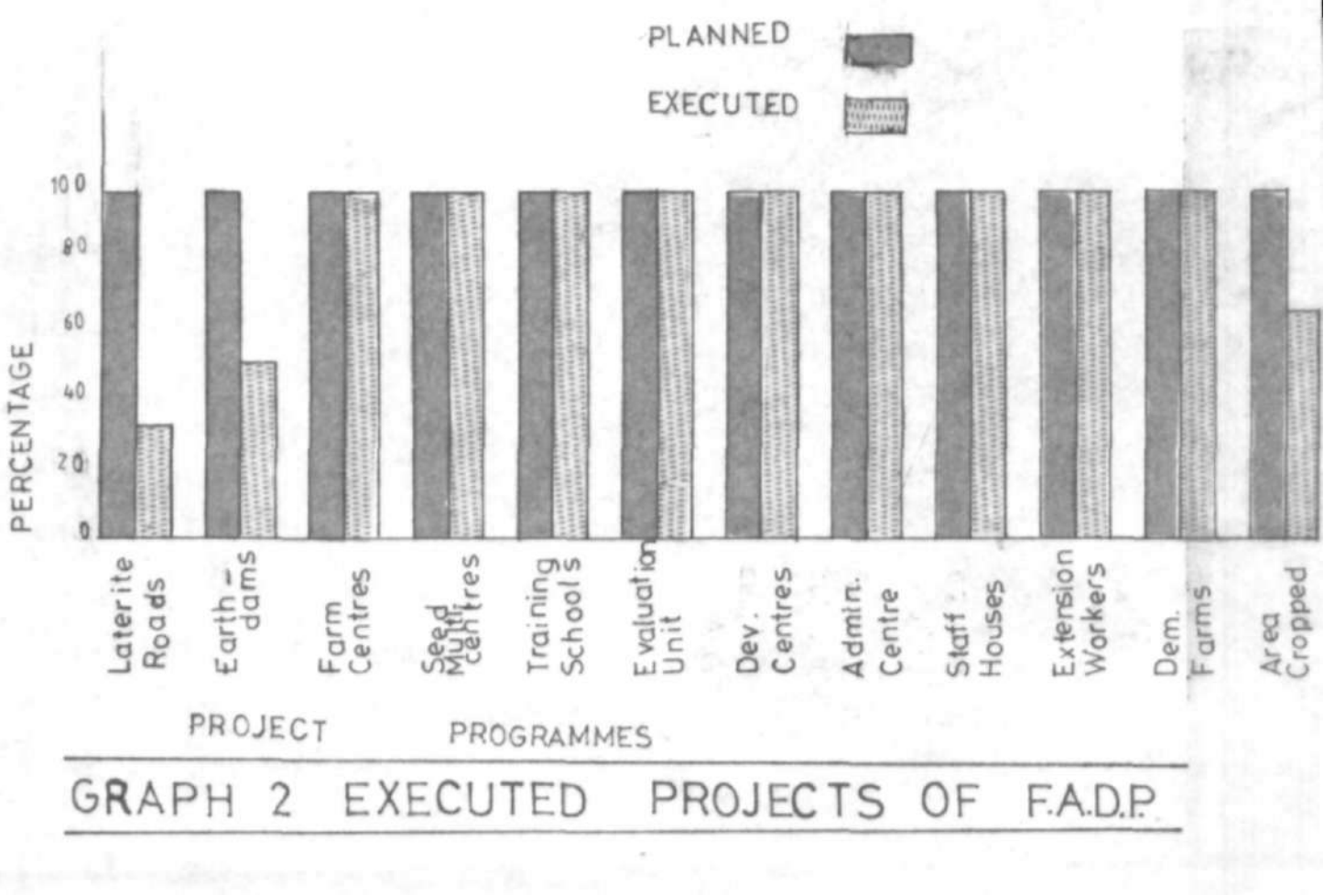
(i) 229 Senior Intermediate and Junior Staff houses built.

(j) Credit facilities in operation.

(k) Demonstration farms at each Farm Centre Service Centre. (see graph 2 and Tables 7, 8 and 9). Also map 30



GRAPH 1 TYPES OF ROADS IN F.A.D.P AREA

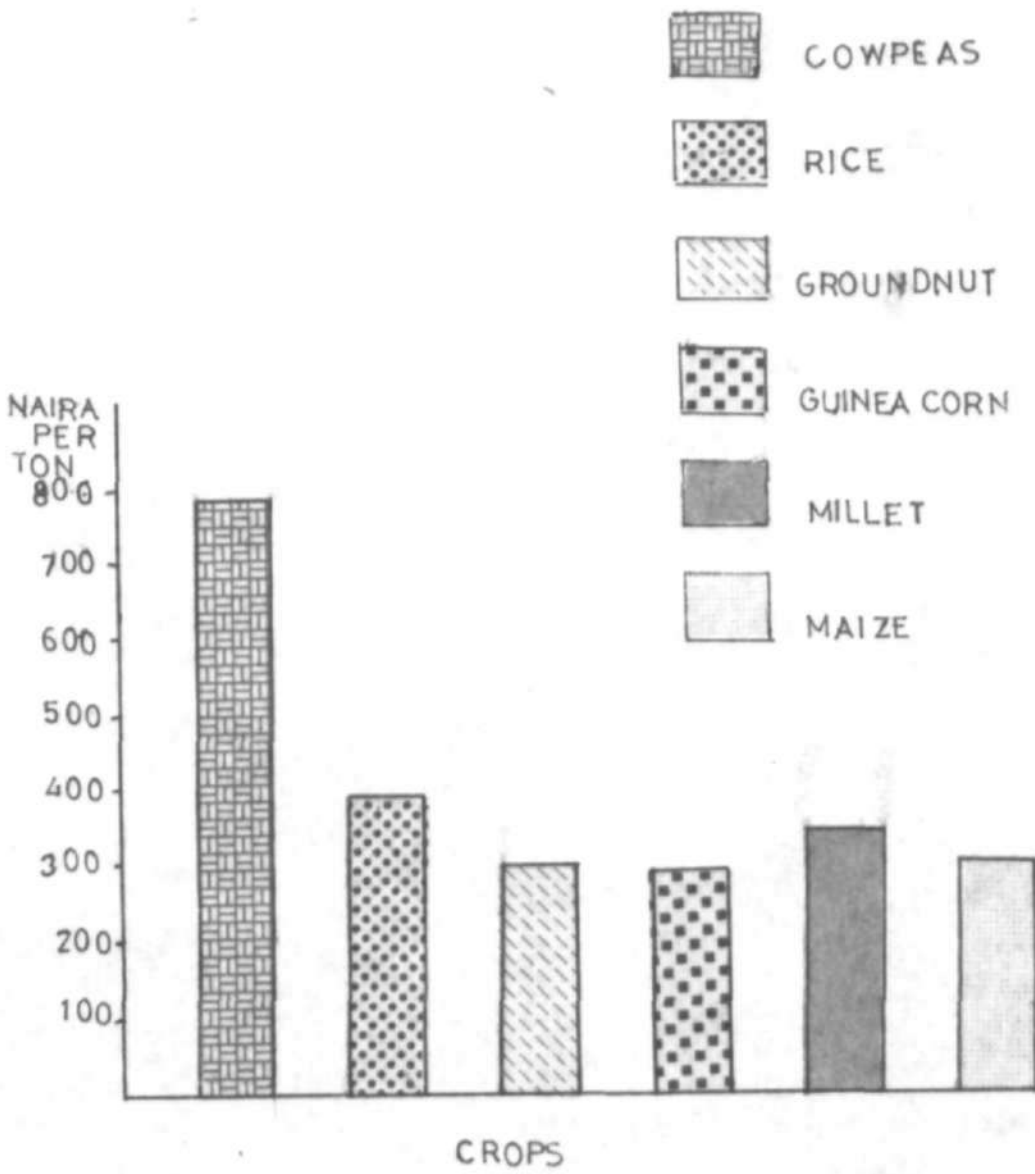


GRAPH 2 EXECUTED PROJECTS OF F.A.D.P

From the achievements listed above it can be concluded that the F.A.D.P. is making great progress in the area. If the increased production of agricultural produce is one of the objectives, then it will be correct to conclude so. Table 7, 8 and 9 show how crop production has changed since the 1976/77 season and the benefits derived. (see graph 3).

Also the increase in the demand for fertilizers may be seen as an awareness of the importance of fertilizer in improving production and a possible increase in farming activities brought about by the establishment of the F.A.D.P. For example in 1976 only 14% of the farming families sought and obtained fertilizer whereas in 1977 this figure rose to 47% of the farming families. The pre-project sales of fertilizers was only 400 tonnes, while in 1977, a year after the commencement of the project, the figure rose to 30,000 tonnes. The pre-project estimate of extension worker farmer ratio was 1:2240 and this improved to 1:277 in November 1977. Table 10 summarises some of the effects the F.A.D.P. has upon farmers and farm workers rates of return, and it also gives an indication of the increased agricultural inputs needed to raise yields.

But rural development as advocated in this study is not just the increase in agricultural production and income earnings. It goes beyond that into the investment in other development activities like industry etc. and the provision of other services and facilities necessary for a good standard of living. These, by a quick look through the composition of the F.A.D.P. Executive Committee members, the objectives of the F.A.D.P. and the planned



GRAPH 3

AVERAGE CONSUMER PRICES FOR SOME CROPS IN F.A.D.P. AREA FOR 1977/78

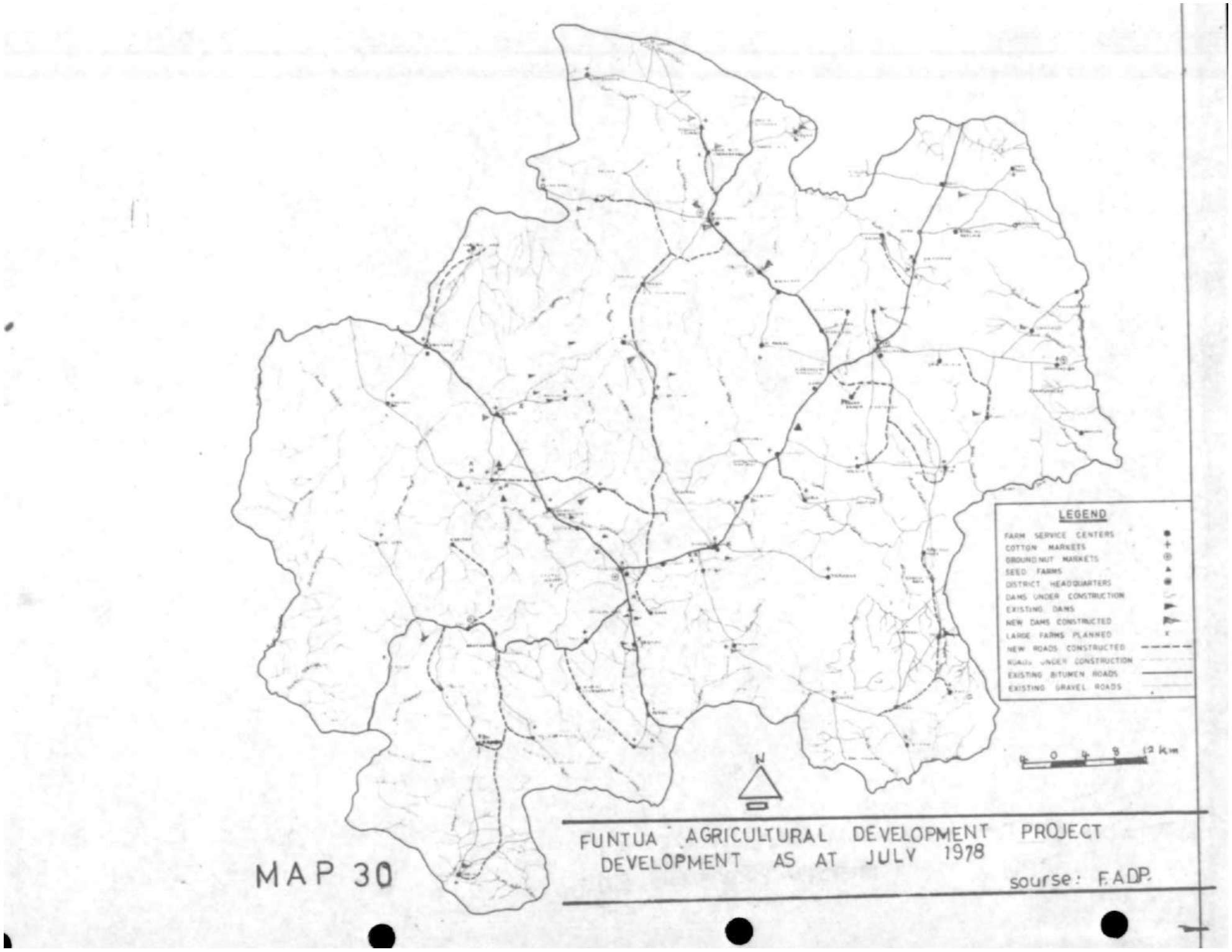

LEGEND
FARM SERVICE CENTERS
COTTON MARKETS
GROUNDNUT MARKETS
SEED FARMS
DISTRICT HEADQUARTERS
DAMS UNDER CONSTRUCTION
EXISTING DAMS
NEW DAMS CONSTRUCTED
LARGE FARMS PLANNED
NEW ROADS CONSTRUCTED
ROADS UNDER CONSTRUCTION
EXISTING BITUMEN ROADS
EXISTING GRAVEL ROADS
0 4 8 12 km
N
FUNTUA AGRICULTURAL DEVELOPMENT PROJECT
DEVELOPMENT AS AT JULY 1978
sourse: F.A.D.P.
MAP 30

TABLE 7: CROP ESTIMATES 1978-79 - MAJOR CROPS ONLY. TOTAL AREA INCLUDING CROP MIXTURES

Crop	Estimated Area and Production 1978-79		Area and Production 1977-78		Area and Production 1976-77	
	Acres	Tonnes	Acres	Tonnes	Acres	Tonnes
Sorghum (Traditional)	650,000	188,616	659,898	160,898	707,165	186,142
Sorghum (Improved)	2,000	1,071	1,000	536	500	268
Millet	350,000	46,875	286,006	23,153	458,716	68,446
Maize	220,000	78,571	144,015	46,645	12,678	3,300
Cotton*	180,000	20,000	299,223	19,540	234,576	32,123
Groundnuts	220,000	44,196	163,171	31,379	61,083	11,693
Peppers	25,000	7,533	17,715	5,961	27,661	7,532
Rice	35,000	6,250	19,533	3,137	48,407	7,[illegible]
Cowpeas"	150,000	4,353	70,410	1,854	180,100	4,716

* Planting not complete.

Source: Funtua Agricultural Development Project.

projects, are conspicously missing. For example the Executive Committee Membership exclude people from the Ministries of Land and Surveys, Health, Education, Rural Electrification, to mention a few. Also the planned projects have nothing on health, education, recreation, industry, electrification, physical planning etc. The obvious obmission and the subsequent non-inclusion of projects of these Ministries and departments in the composition of the Executive Committee and the Programmes of the Funtua Agricultural Development Project shows a lack of proper integration in the Funtua Agricultural Development Project which is meant to develop the rural areas.

TABLE 10

THE DIRECT ECONOMIC IMPACT OF FARM DEVELOPMENT-AN FADP EXAMPLE

	Returns Per Hectare (Net of Labour And Inputs). ₦			Returns To Labour Per Hectare. ₦			Expenditure On Crop Inputs Per Hectare ₦		
	LEVEL OF TECHNOLOGY			LEVEL OF TECH.			LEVEL OF TECHNOLOGY		
	0	1	2	NOLOGY 0	1	2	0	1	2
Cotton	24.5	69.8	110.3	23.2	37.2	47.2	1.0	39.2	65.8
Groundnuts	4.6	25.7	-	38.4	50.0	-	1.6	13.6	-
Sorghum	31.9	71.6	139.4	34.0	39.2	48.0	1.6	24.2	37.6
Maize	38.3	73.9	182.5	37.6	46.4	52.0	1.6	30.2	66.5
Cow Peas	9.5	15.5	-	30.4	50.0	-	1.5	32.3	-

0 = Current Technology.

1 = Stage One Development.

2 = Stage Two Development.

Source: F.A.D.P.

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C H A P T E R 4

4.00 PLANNING PROPOSALS FOR AN INTEGRATED APPROACH FOR RURAL DEVELOPMENT:

4.10 Summary of Existing Facilities, Services, Potentials and Constraints:

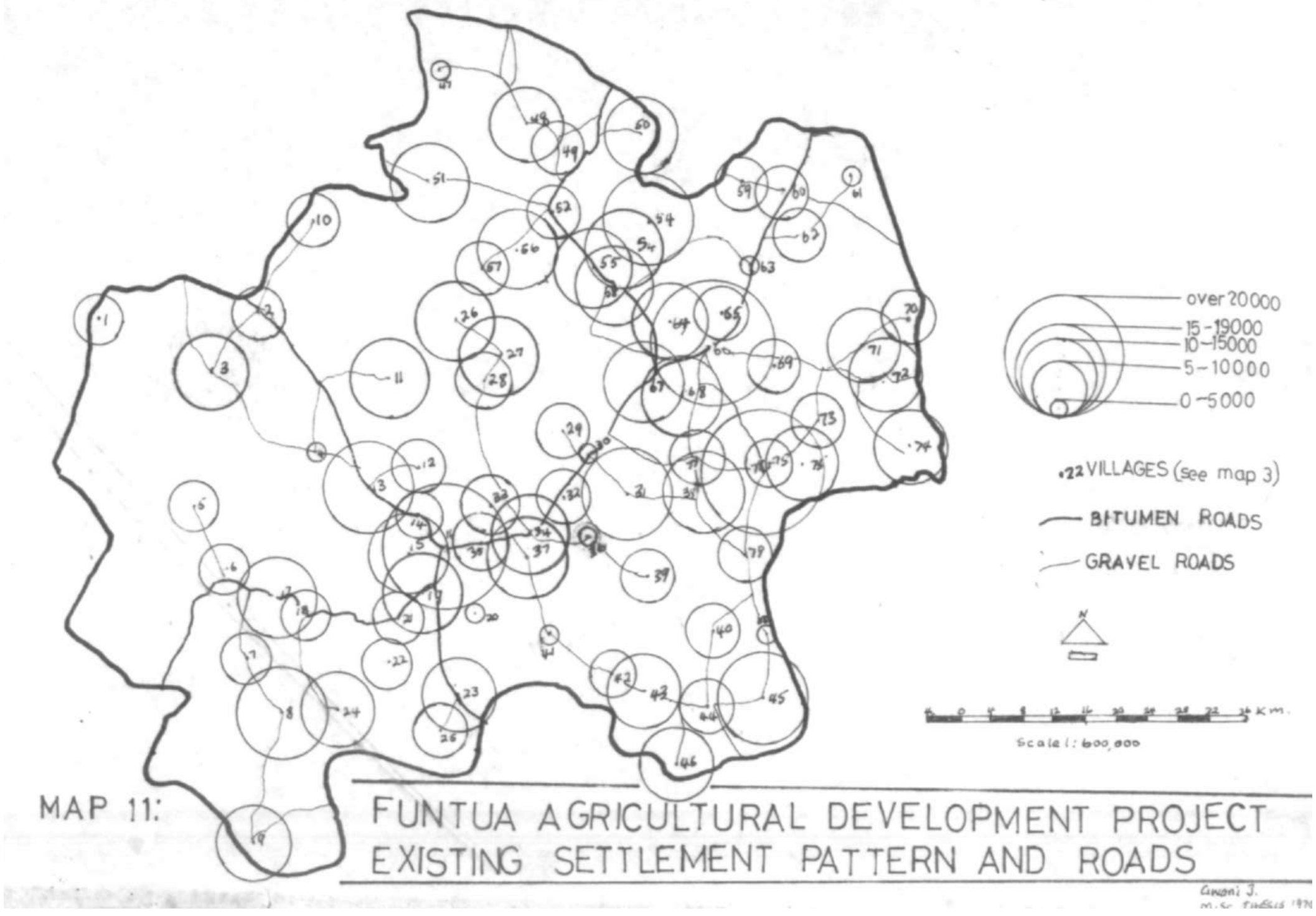
The data analysis revealed the following facts about the study area:+

(a) Population and Settlement Pattern:- The 1978 estimated population is put at 998,951. When this is projected using the natural growth rate of 2.5% the population for the year 2000 A.D. will be about 1,284,376.

There are 80 main villages in the study area with about 697 sattelite villages or wards ("Unguwas").

There are 3 settlements presently with an estimated of over 20,000 people. Five other settlements have between 15,000 and 19,999, 20 settlements with between 10,000 and 14,999; 34 settlements with between 5,000 and 9,999 and 5 settlements with between 0 - 4,999 people. This reveals that over 70% of the settlements have a population above 5,000. (see Map 11).

(b) Accessibility:- The study revealed that the area has a total road length of about 1363.9 km. out of which 100.5 km. is dry season laterite roads and only 226.6 km. is tarred roads. (see Map 11). The study also revealed that over 1258 km. of new roads are needed to provide adequate access to the main villages.



MAP 11: FUNTUA AGRICULTURAL DEVELOPMENT PROJECT
EXISTING SETTLEMENT PATTERN AND ROADS

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M.Sc. Thesis 1974

(c) Services and Facilities:- There are 447 primary schools within the study area. Most of these are single-stream. There are a total of 7 Secondary Schools in the area and no Vocational Schools, public libraries or reading-rooms.

There are at present two hospitals serving the area located in Funtua and Malumfashi the Local Government Area Headquarters. There is no single health centre in the area but there are 27 dispensaries, 10 clinics and 36 leprosaria. The inadequacy of health facilities and services is obvious.

Electricity and safe drinking are found only in Funtua and Malumfashi settlements and they are far from being adequate.

Only Funtua has a Post Office while Malumfashi is served by a Postal Agency.

All local government headquarters have Police Posts and Funtua has a local court. A couple of Policemen are posted to the district headquarters.

Only 5 commercial banks exist in the area, one at Malumfashi and 4 in Funtua. There is a co-operative Society. Majority of the markets operate only weekly basis. There are only 5 daily markets.

There are very few establishments beside agriculture that employ more than five or more persons at present. These establishments are presently located in Funtua and Malumfashi. (see Table 7 and Maps 7 and 8).

The only standard play fields are found in the Secondary Schools. There are no defined community centres and only Funtua town has a cinema house.

Small mosques exist in every settlement and Churches exist only in the local government area headquarters and the district headquarters where there are larger groups of Christians mainly government officials who are not indigenes. (see Map 12).

(d) Resources and Potentials:- The major resources are agricultural products which include guinea corn, maize, cotton hide and skin and groundnuts. This is aided by the gently undulating plain and the Savanna woodland which is easy to clear. Also the soils contain about 30 - 40% of clay at a reasonable depth and this allows for good moisture retention (F.A.D.P., 1978).

The major mineral resources in the area are asbestos and clay deposits. These are potentials for building material development.

A few forest reserves exist in the area especially to the South-West. There are also numerous streams in the area which supply water for livestock and domestic uses. Most of these streams dry up in the later part of the long dry season. Irrigation potentials exist around Mairuwa and Bakori.

Mairuwa and Maska dams are great potentials for fish farms and the development of regional parks. (see Map 13).

Of course the labour force potentials cannot be over emphasized since the area already has an estimated population of 998,951 and most of the population belongs to the working age group. (see Table 6).

(e) Constraints:- The major constraints identified in the area can be devided into physical and socio-economic contraints.

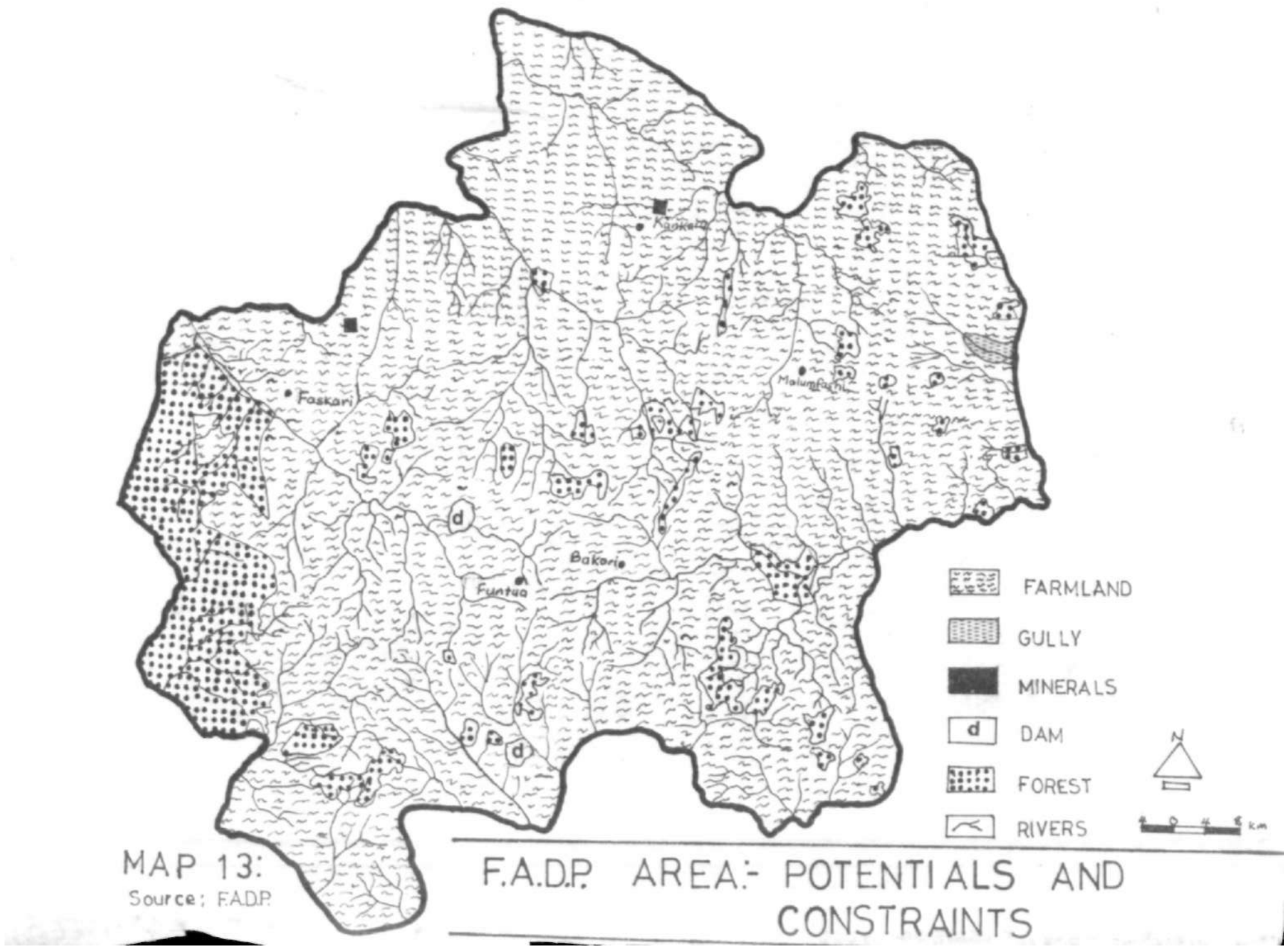

LEGEND
KADUNA STATE
FUNTUA AGRICULTURAL DEVELOPMENT PROJECT
EXISTING FACILITIES AND SERVICES

MAP 12

The physical constraints include the climate which has been described earlier, soil erosion, lack of good roads and the problem of drinking water. The rainy season is short and most sources of water dry up during the later part of the dry season and even wells dry up because the water table falls greatly. Gully erosion is severe around Makaurachi (Max Lock, 1978) (see Map 13).

The socio-economic constraints include the lack of skilled labour, labour shortage caused by migration to urban areas, lack of diversification in the economic base and inadequate credit, marketing services and other financial institutions. These can greatly hold up the development process especially when local participation is excluded.

(f) <u>The F.A.D.P. Programmes and the Third National Development Plan</u>:- The stated objectives and programmes of the F.A.D.P. overlook the integrated approach to rural development and emphasize mainly increased agricultural production. This is further revealed by the composition of the members of the Management Unit and the Executive Committee of the F,A.D.P. It shows that not all departments responsible of rural development are represented and even those non-agricultural groups represented do not have properly defined roles besides contributing to raise the agricultural production. The Ministries of Land and Survey (especially Town and Country Planning Division) health, education, etc. are not represented (see edict).



MAP 13:
Source; F.A.D.P.

F.A.D.P. AREA:- POTENTIALS AND CONSTRAINTS

There is no an Integrated Area Development Plan drawn and also the programmes are only planned for the first 5 years that are expiring this year. Since a perspective plan is lacking therefore there is no proper phasing out which can help set out priorities or hierarchy of inplementation.

The first two National Development Plans 1962 - 1968 extending 1970 and 1970 - 1974 did not have much on integrated rural development. It is in the Third National Development Plan 1975 - 1980 that regional development especially village inprovement received some attention. Programmes of regional development nature included in plan are River Basin Development, large agricultural development projects like the Funtua, Gombe, Bauchi and Ayangba type, village resettlement and re-grouping, community development which includes rural water supply, electricity, dispensaries, good access roads schools, community halls etc.

4.20 PLANNING PROPOSALS FOR AN INTEGRATED APPROACH FOR RURAL DEVELOPMENT:

Based on the findings discussed above the following proposals are made for the Funtua Agricultural Development Area.

4.21 AN INTEGRATED AREA DEVELOPMENT PLAN (I.A.D.P.):

The plan starts from the 1980/81 fiscal year and extents to the year 2000 A.D. (a period of 20 years).

Within this period the proposed facilities and services for the whole area include:-

1. Education:

   a. 447 existing primary schools to be improved.

   b. 28 new Secondary Schools to be established and the existing 7 to be improved.

   c. 12 Vocational Training Schools to be established.

   d. 12 Public libraries to be established.

   e. 28 new reading rooms to be established.

2. Health:

   a. 2 existing hospitals to be improved.

   b. 10 new comprehensive health Centres.

   c. 15 new dispensaries and existing 27 to be improved.

   d. 12 new clinics and 10 existing to be improved.

   e. 36 existing leprosaria to be improved.

3. Administration:

   a. 11 new Police Stations/Posts and improve existing ones.

   b. 12 new local courts and improve existing ones.

   c. 4 new sub-treasuries and improve the 1 existing.

4. Agriculture:

   a. Existing 72 Farm Service Centres to be maintained and improved.

   b. 72 Veterinary Posts to be established.

5. Others:

   a. 42 rural banks to be established

   b. Mineral prospecting to be encouraged.

   c. 36 settlements to have electricity.

   d. All villages to have safe drinking water.

e. 12 new fire stations to be established

f. 12 Post offices and 28 postal agencies to be opened.

g. 11 - 15 agro-based rural industries to be established

h. 1 Regional park and several local parks

i. Community Centres and Playfields

j. Markets and Co-operative Societies

k. Craft Centres and Services like Tailoring, Automobile Repairs etc.

The different agencies that will be involved include the Ministries of Health, Education, Works and Transport, Communication and Trade, Industry and Co-operatives. Others are the Ministries of Agriculture and Rural Development, Lands and Survey Mines and Power, Finance, Information and Tourism, and the Executive Council for the State. Also involved are the Water Board, Housing Authority, Rural Electrification Board, National and International Voluntary Organisations and the local communities. Table 11-16 summarizes the I.A.D.P. showing the different agencies involve and the different programmes to be executed by each agency at different levels of government.

Areas of integration for each agency will be as follows:-

Ministry of Health:- To provide in a hierarchical order the health services required and conduct research into common diseases in the area and educate the people on preventive practices. To also direct and co-ordinate the efforts of the local government and the local communities in trying to achieve better health standards.

Ministry of Education:-	To provide in a hierarchical order and improve existing educational facilities and services. To direct and co-ordinate the efforts of other agencies in providing such facilities.
Ministry of Works and Transport:-	To provide good access to the settlements either directly or indirectly through other agencies like the local government To provide technical aids and financial aids where possible. To organise public transport service.
Ministry of Communication:-	To establish Post Offices/Postal Agencies and Telephone exchange.
Ministry of Trade, Industry and Co-operatives:-	To help in establishing co-operative Societies, Credit facilities and Agro-based rural industries. To supply essential Consummer goods.
Ministry of Agriculture and Rural Development:	To provide agricultural imputs and extension services. Help in livestock development and the production of crops for food and industries.
Ministry of Lands and Survey:-	To provide physical plans and layouts for the settlements and also advise on proper location of facilities and services.

Ministry of Finance:- To provide finance for implementation and check expenditure.

Ministry of Information:- To enlighten local communities about development plans and encourage their participation in and accepted of government initiatives.

Ministry of Mines and Power:-
To prospect for and mine minerals.

Water Board:- To build dams, provide drinking water and sink bore holes.

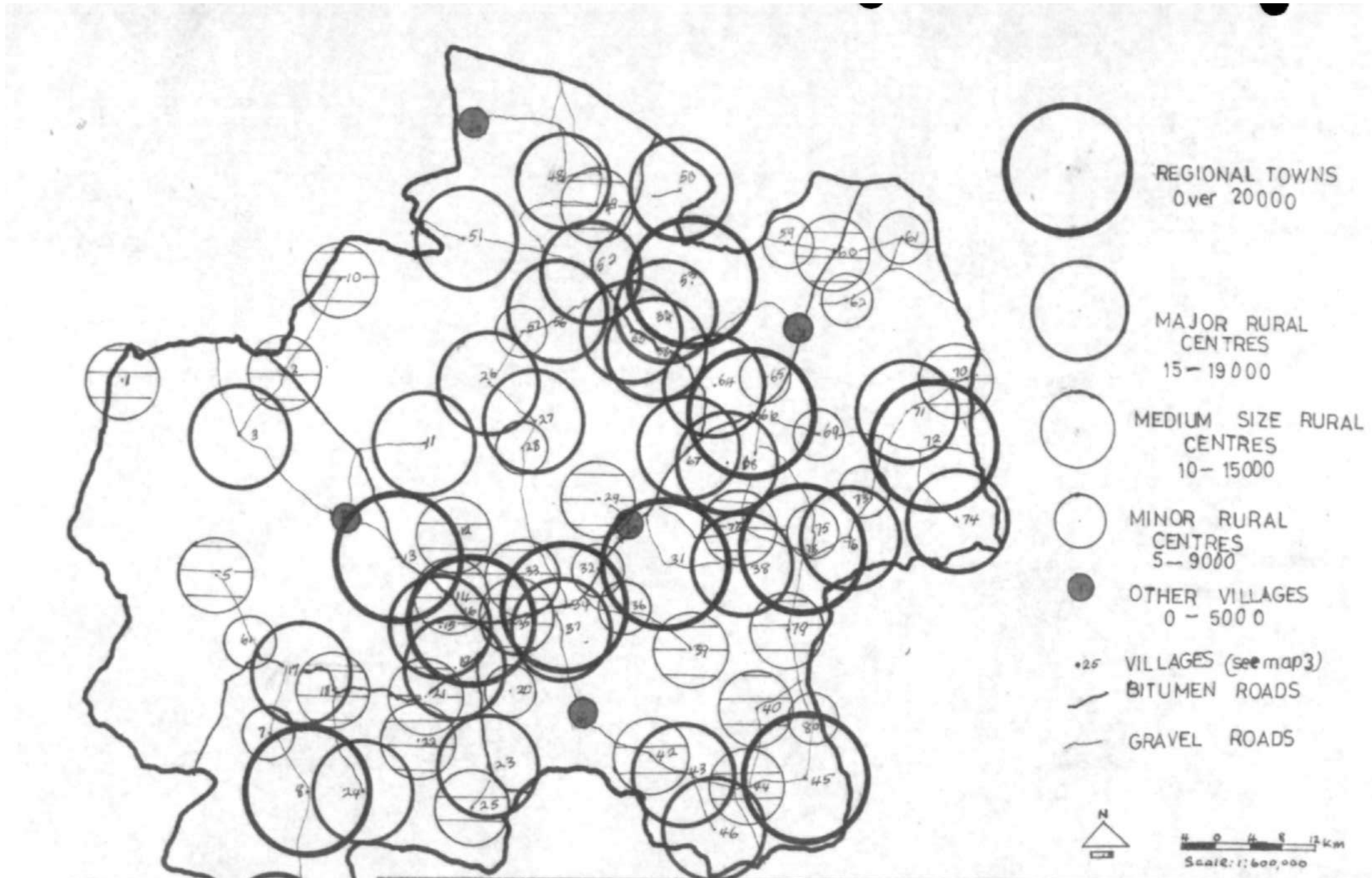
Rural Electrification Board:-
To provide electricity for domestic and light industrial uses.

Housing Authority:- Provide housing designs,.
Provide housing loans.

General Administration:- To administer law and provide Security and other administrative functions.

National and International Voluntary Organisation:-
These will be allowed in all areas of community development, industrial, educational and other sectors subject to government policy and approval.

The I.A.D.P. will be phased out as spelt out in the next Section and each agency is expected to identify its programmes and implement in a hierarchical order according to the availability of funds, manpower and the prevailing circumstances.



MAP 14.

FUNTUA AGRICULTURAL DEVELOPMENT PROJECT
PROPOSED FUNCTIONAL HIERARCHY 2000 A.D.

4.22 FUNCTIONAL HIERARCHY OF SETTLEMENT:

Based on the projected population for each settlement in the area for year 2000 A.D. and the present functions of the settlements a functional hierarchy of settlement is proposed as follows:-

(a) Regional Towns:- All settlements with population above 20,000 and Local Government and district headquarters fall in here and will perform the functions of administration industrial centres, Farm Service Centres and commercial/Market centres. The major services and facilities will include Police Station, Law Courts, Secondary Schools, Hospital/Health Centres, Libraries, Post offices etc.

(b) Major Rural Areas:- Those will be all settlements with between 15,000 - 19999 people and will perform the functions of administration, small industrial centres, Farm Service Centres, Market towns and Farming centres. Major services here will include dispensaries, reading rooms, markets and veterinary clinics.

(c) Medium Size Rural Villages:- All settlements with populations between 10,000 and 14999 will be in this category and will perform the functions of Farm Service Centres, small periodic markets and major farming centres. Service available will include clinics and primary schools.

(d) Minor Rural Villages:- These include all settlements with population between 5000 and 9999 and will perform the functions of farming villages.

(e) Other Villages:- These are those with population below 5,000 and will function as farming villages. (see Map 14).

4.23 SETTLEMENT PATTERN AND ROAD HIERARCHY:

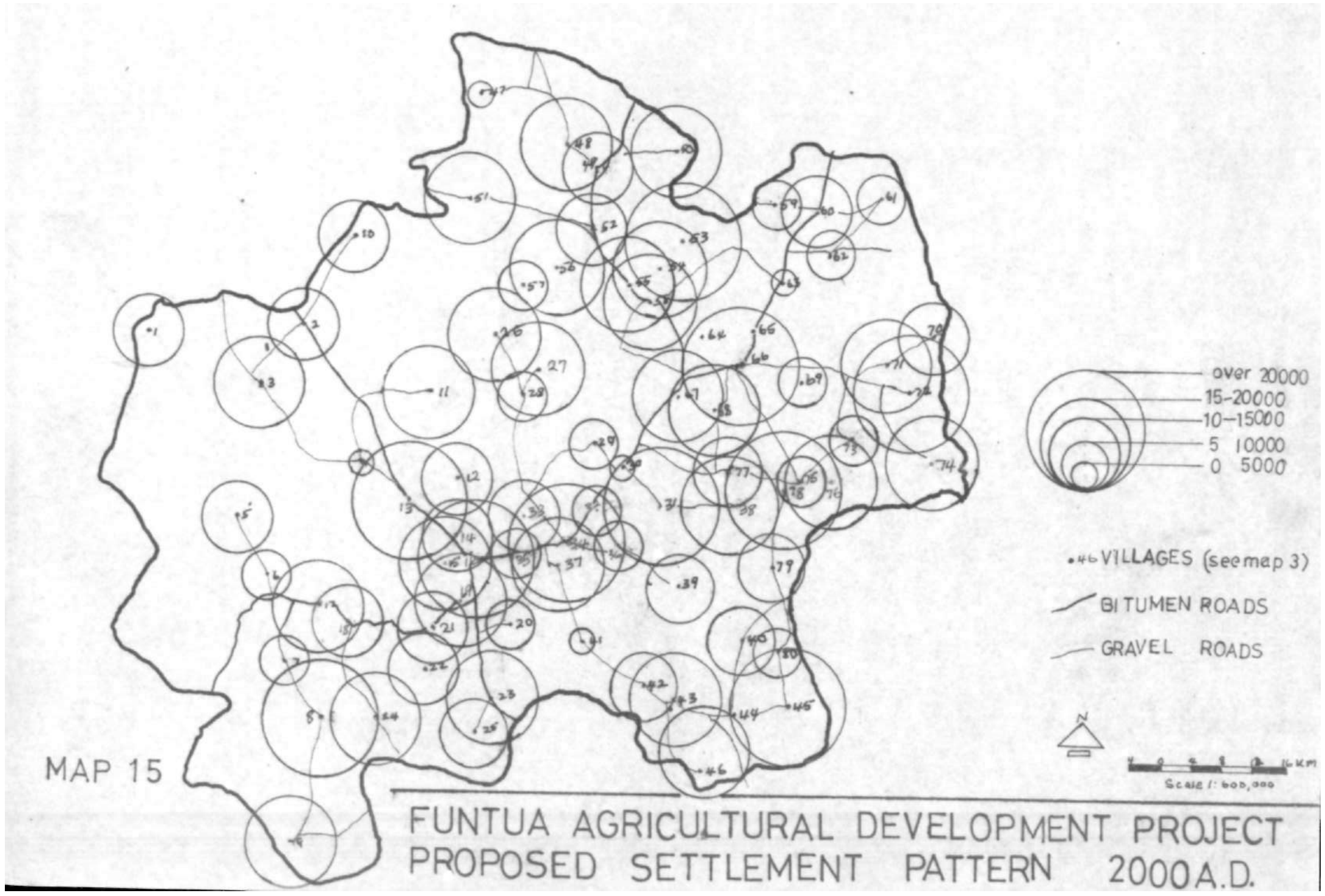
A settlement pattern based on the estimated population size for the year 2000 A.D. is shown on Map 15. It is expected that Some settlements like the local government and district headquarters of Faskari, Kankara, Bakori, Funtua and Malumfashi will grow faster than the normal growth rate. Others like Mairuwa, Ketare, Mahuta, Masari, Gundana, Kukasheka and Tsiga are likely to grow faster too due to influence from the administrative headquarters and industrial activities proposed there.

A four-level hierarchy of roads is proposed for the area (see Map 15). First order roads will be inter-regional roads and will be taken care of by the Federal Government. Second order roads will be State Government responsibility and the third order roads mainly all seasons laterite roads will be the responsibility of the Local Government. The fourth order roads are mainly village access roads and will be taken care of by the Communities with technical aid from the government.

4.24 DISTRIBUTION OF FACILITIES, SERVICES AND OTHER INFRASTRUCTURE:

Based on the projected population for the year 2000 A.D. for all the settlements in the area (see appendix) different facilities, services and other infrastructure have been proposed. These are grouped under the broad headings of Education, Health, Recreation/ Cultural, Agriculture, Industry, Administration, Trade and Commerce, Communication and Transport and others.

The distribution has been guided by standards applied in other works such as the Bichi/Gaya Master Plans and the Birnin Zaria Development Plan of the Department of Urban and Regional Planning A.B.U. Zaria and also Professor Vagale's Manual of space standards for Western State of Nigeria and the general standards applied in



MAP 15

FUNTUA AGRICULTURAL DEVELOPMENT PROJECT
PROPOSED SETTLEMENT PATTERN 2000 A.D.

Nigeria and other developing countries like India (Delhi Master Plan). Map 16 shows the proposed facilities and services and their distribution.

A. EDUCATION:

(a) Primary Schools: (i) The guiding principle is distance and population.

(ii) No School to be more than 2 km. walking distance for most pupils.

(iii) For each population of between 4000 and 5000 there should be one Primary School.

(iv) The present number of 447 is suffiient and need improvement and expansion.

(b) Secondary Schools:-

(i) Population and distance too has been the main guiding principle.

(ii) One each to serve any population of over 20,000.

(iii) 4 to 6 primary Schools to serve one Secondary School on the assumption that at least a third of each graduating primary school class will qualify for secondary education. (see Map 16).

(iv) A total of 28 new Secondary Schools plus improvement of the existing 7 is proposed.

It should be noted here that there has been a great deviation from the widely practised standard of 1 Secondary School per 30 - 40,000 people. This is so because the importance of education

in transforming the rural population is greatly recognised and also because the schools will be mainly day with no boarding facilities to reduce cost.

(c) Vocational Technical School:-

(i) One at every settlement with above 20,000 people.

(ii) One each at each district headquarters.

(iii) A total of 12 is proposed.

(d) Public Libraries/Reading Rooms:-

(i) One Library for any settlement with above 20,000 people.

(ii) One each at district headquarters.

(iii) One reading room for each settlement of between 15,000 and 20,000.

(iv) A total of 12 libraries and 28 reading rooms is proposed.

(e) Adult Education:- Establish in all villages, by the Communities and local government.

B. HEALTH:

(a) Hospitals:-

(i) The two existing hospitals are to be maintained and improved so that they can serve effectively a radius of 30 km.

(ii) Mobile Units, Preventive Health Service Units and Nutrition Units are to be established in each hospital and health centre to take charge of 8 to 12 villages.

(b)	Comprehensive Health Centres: (With at least 15 - 30 beds)		
		(i)	Each district headquarters to get one.
		(ii)	Any settlement with above 20,000 people to get one.[1]
		(iii)	A total of 10 health Centres is proposed.
(c)	Dispensaries:-	(i)	One each for settlements with between 10,000 and 20,000 and present ones to be improved.
		(ii)	A total of 15 new ones are proposed to supplement the existing 27.
(d)	Clinics:-	(i)	One each for settlements with population below 10,000 and the present 10 to be improved.
		(ii)	A total of 12 new ones are proposed.
(e)	Leprosaria:-		Present number of 36 to be maintained and improved.
C.	Drinking Water:-	(i)	All district headquarters and other settlements to be provided with safe drinking water either by pipe or bore holes and safe wells.
		(ii)	Functions and population size to guide in priorities.

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1. Delhi Master Plan Standard is 1 for 22,000.

D. Electricity:-	(i)	All settlements to have electricity if possible.
	(ii)	Function, location and population size to be the criteria for providing.
E. Farm Service Centres:-	(i)	Present number of 72 to be maintained and improved since they were established on settlement functional hierarchy.
F. Banks:-	(i)	Each district headquarters and any settlement with above 15,000 people to have a rural bank.
	(ii)	Mobile banks to serve other villages.
	(iii)	A total of 42 rural banks are proposed.
G. Administration:-	(i)	Each village with over 20,000 people to have a Police Post. (widely practised Standard is 1 for 75,000 see Vagale).
	(ii)	Each settlement with over 20,000 to have a local court.
	(iii)	Mobile courts to serve other settlements.
	(iv)	One prison for each local government area at the headquarters.

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1. Vagale, L.R. (Ed.) "Manual of Space Standards For Urban Development in the Western State of Nigeria". Suggest 1 for 15 - 20,000.

(v) 5 Sub-Treasuries one at each district headquarters.

(vi) Fire-station for settlements with above 20,000 people.

(vii) A total of 12 Police Stations, 12 Local Courts, 12 Mobile Courts, 2 prisons 5 Sub-treasuries and 12 firestations are proposed.

H. Communication and Transport:-

(i) All Regional Towns to have Post Offices and telephone exchange, 12 in all.

(ii) All major rural areas to have Postal Agencies.

(iii) Mobile Post offices to operate.

(iv) All villages to be linked with good roads.

(v) A four level hierarchy of roads is proposed.

I. Industries:-

(i) All Regional Towns to have each an agro-based industries such as a Textile, Flour Mill, Diary Product, Livestock feeds etc.

(ii) Fishing industry to be developed in Mairuwa and Maska where there are already large dams.

(iii) Crafts and other small scale industries to be encouraged in all settlements through small scale industrial loans.

(iv) An ashestos and burnt brick industries to be established at Faskari.

J. Recreation/Cultural:-(i) A Regional Park to be developed in Mairuwa where there is already a Motel and a dam.

(ii) Local Parks for all other settlements.

(iii) Community Centres for all settlements and also play fields.

(iv) Mosques for all settlements and Churches where needed.

K. Physical Plans:- (i) All main villages to have physical plans to guide and control their growth. For this a village design brief is proposed. (See maps 21-29)

4.25 A TYPICAL HAUSA VILLAGE DESIGN BRIEF:

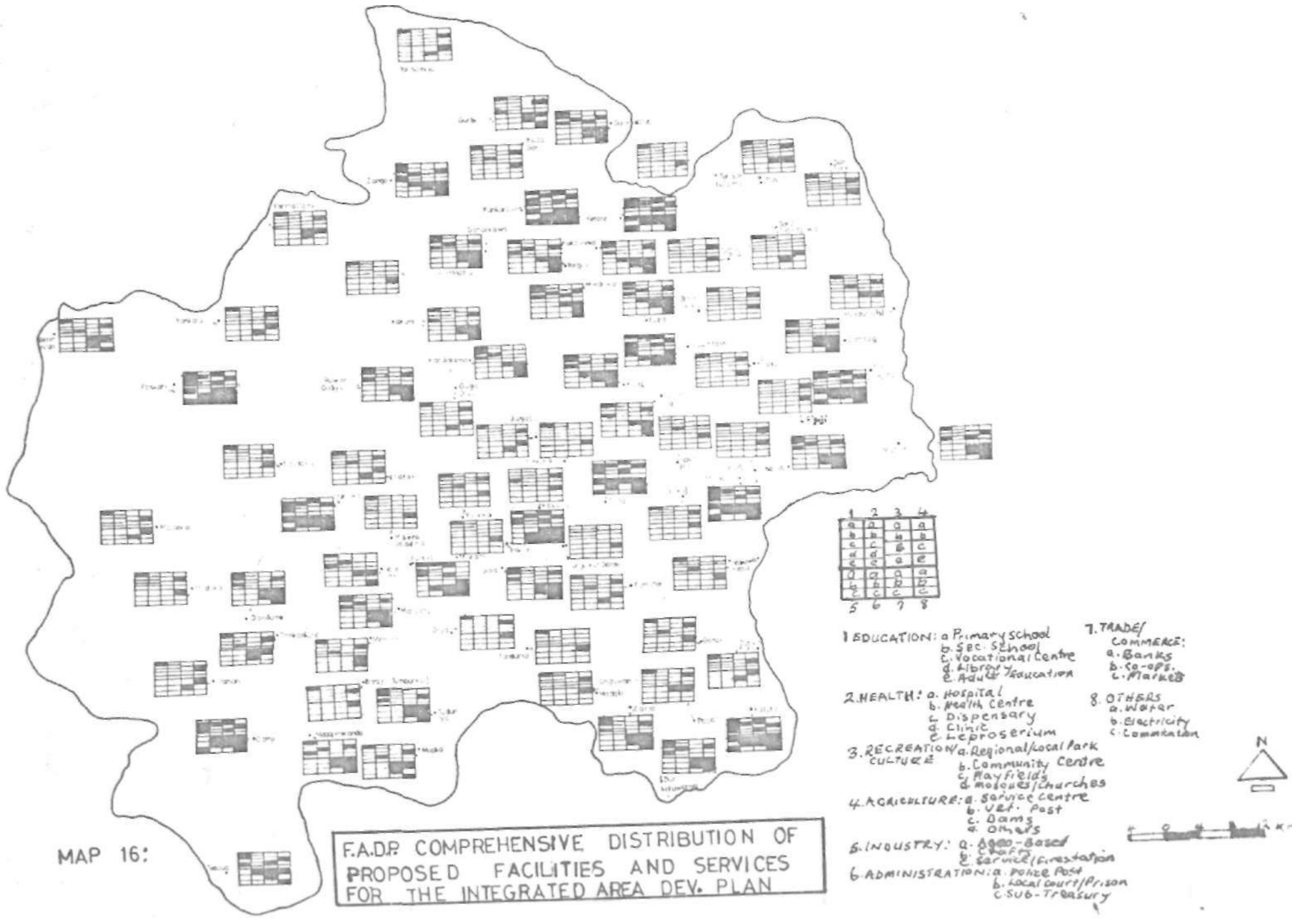
A. Objectives:- To provide guidelines for the village planners in planning principles, requirements and design considerations.

B. Principles:- Since the area is a Hausa land, the culture and tradition of the people should be the guiding principle.

The design should include traditional elements like the village-head's house, the 'dandal' and the market (if required) and give them the prominence they deserve within the village.

The design should also be simple and flexible and the grid-iron or rigid patterns should be avoided.

* Traditional housing should be emphasized and encouraged. The compound forms the physical basis of the traditional Hausa residential unit. Each compound is made up of one or more families eating collectively or as separate families and a compound has the



MAP 16: F.A.D.P. COMPREHENSIVE DISTRIBUTION OF PROPOSED FACILITIES AND SERVICES FOR THE INTEGRATED AREA DEV. PLAN

basic physical pattern of a "Zaure", the fore Court, and the inner compound. The inner compound makes separate room provisions for the wife/wives, unmarried male adults (in the case of a single family) and some open space for small scale gardening and other family leisure activities. The case is the same in a multi-family compound only that each family has its small unit compound within the larger Unit.

The compounds should be grouped around open spaces preferrably planted with trees.

Infrastructure should be provided according to the regional hierarchy.

No through traffic of regional roads should be allowed. They can bye-pass the village.

Proper accessibility should be provided to link up the village with other settlements.

C. Requirements:- The required infrastructure should be provided depending on the its population and function. For a guide the following distribution can be useful.

For Level 1 Central Village:

Village Community Centre

Library

Local Courts

Sub-Treasury

Sub-Post Office

Primary/Secondary Schools

Vocational Training Centres

Health Centres

Veterinary Centres

Mosques/Churches

Markets

Co-operative Stores

Seed, Fertilizer and Farm inputs Stores

Agro-based industries or Craft industries depending on situation.

Repair and service shops for farm inplements, onto mobile, tailors, barbers and other services, water supply (pipe or well) and electricity.

Level 2 Villages:

Village Community Centre

Primary School

Health Clinic

Veternary Post

Postal Agency

Periodic Market

Mosques/Churches

Water (pipe or well)

Electricity.

Level 3 Villages:

Village Community Centre

Mosque/Church

Water (pipe or well)

Electricity.

D. Design Consideration:

When designing a village, care must be taken to prominently locate the village head's house with the 'dandal' or village square facing it.

The village square should be carefully and properly integrated with other open spaces in the village.

The market should be accessible from the main road.

Large plots, 15 metres by 30 metres, should be provided for the houses. This is necessary because of the compound type houses and other activities that take place within residential units.

Roads should be wide enough. Major roads to be between 9 to 12 metres wide and access roads to be 6 metres wide. Pedestrian routes too should be included in the design.

4.26 PHASING OUT FOR IMPLEMENTATION:

Another important of the Integrated Area Development Plan is phasing it out for implementation. Plans not well phased out can easily run into bottle necks caused by shortage of manpower, finance and other problems such as duplications etc. Properly spaced out periods for implementation will help in achieving priorities and steady progress.

For this study the proposals are for a period of 20 years starting from 1980 and extending to 2000 A.D. It is therefore proposed that the implementation will take 4 phases of 5 years periods coinciding with the National Development Plan periods as follows:-

1st Phase - 1980 - 1985 - IV National Development Plan

2nd Phase - 1985 - 1990 - V National Development Plan

3rd Phase - 1990 - 1995 - VI National Development Plan

4th Phase - 1995 - 2000 - VII National Development Plan.

The phasing has taken into consideration the need, function, and population size of the settlements and where specific settlements are not mentioned, it is to be assumed that the distribution will be according to need, function and size of the population. Tables 9 - 12 summarize the phases. Any item with asterisks refers to map for location.

TABLE II. PHASE I : IV NATIONAL DEVELOPMENT PLAN:

See map 17

	AGENCIES AND FUNCTIONS			
	FEDERAL GOVERNMENT	STATE GOVERNMENT	LOCAL GOVERNMENT	LOCAL COMMUNITIES AND INDIVIDUAL
EDUCATION	a. Improve Secondary School in Bakori	a. 7 new Secondary Schools* b. 3 new Vocational Training Centres c. 3 public Libraries*	a. Improvement of all primary Schools b. 7 reading rooms* c. Adult educ. in all settlements	Improvement of primary Schools and Nursery Schools
HEALTH	-	a.Mobile Units at the 2 hospitals b.3 Health Centres *	a.4 new dispensaries* b.3 new clinic* c.Improvement of Leprosaria	a. Chemist shops b. Sanitation c. First aid groups.
ADMINISTRATION	a. 4 new Police Station* b. 1 Prison*	a.5 Local Courts* b. 1 Sub-Treasury* c. 3 fire Stats.* d. 5 Mobile Courts		
TRADE, INDUSTRY & CO-OPERATIVES	a. Loans & Gurantee	a.3-4agro-based industries* b.coorperatives c. Loans	a. 10 markets* b. small scale industries* c. Loans d. Crafts	a. Shops b. Co-operative Societies c. Crafts
COMMUNICATION	a.3 Post offs. b.7 P.Agencies c.3 Telephone exchange			
WATER		a.20 Settlements to have water*	a. Wells	a. Wells
ELECTRICITY	a.5 Settlements to get light	a. settlements to get light*		
RURAL BANKS		a. 4 Co-operative Banks*		a. 8 Rural Banks*
RECREATION		a. 1 Regional Bank*	a. 20 Local Parks*	a. Community Halls b. Play fields

..../2

TABLE .II CONTD.

	FEDERAL GOVERNMENT	STATE GOVERNMENT	LOCAL GOVERNMENT	LOCAL COMMUNITIES AND INDIVIDUAL
PHYSICAL PLANS		a. 11 district Hqs. and Regional Towns*		
AGRIC. & LIVESTOCK		a. Improvement of farm service Centres b. Farm inputs c. 18 Veterinary Posts*	a. Slaughters Labs. at all farm service Centre. b. Farm Inputs	Poultry
MINES	a. Prospecting for minerals.			
WORKS & TRANSPORT	a. 113 km. of roads* b. Improvement of railway*	a. 130 km. of roads* b. Public transport	a. 92 km of roads* b. Public transport	a. Private Buses b. access roads


LEGEND
1 EDUCATION
2 HEALTH
3 RECREATIONAL CENTRE
4 AGRICULTURE
5 INDUSTRY
6 ADMINISTRATION
7 WASE/COMMERCIAL
8 OTHERS
KADUNA STATE
FUNTUA AGRICULTURAL DEVELOPMENT PROJECT
PROPOSED INTEGRATED AREA DEVELOPMENT PLAN
IMPLEMENTATION PHASE 1 1980-1985

MAP 17

TABLE 12. PHASE II V[illegible] LIV[illegible]

See map 18

AGENCIES AND FUNCTIONS

	FEDERAL GOVERNMENT	STATE GOVERNMENT	LOCAL GOVERNMENT	LOCAL COMMUNITIES & INDIVIDUALS
EDUCATION	a. Improvement of Secondary School in Bakori	a. 7 new Secondary Schools* b. 3 Vocational Training Centres* c. 3 Libraries*	a. Improvement of primary Schools*. b. 7 reading rooms c. Adult Education Improvement	a. Improvement of primary Schools and Nursery Schools
HEALTH	-	a. 3 new Health Centres* b. Improvement of hospitals	a. 3 new dispensaries* b. 3 new Clinic* c. Improvement of the existing ones	a. Sanitation b. Chemist shops
ADMINISTRATION	a. 4 new Police Posts* b. Improvement of Police Post and Prisons.	a. 3 new local Courts* b. 3 Firestations* c. 1 Sub-treasury* d. 3 Mobile Courts	-	-
TRADE, INDUSTRY & CO-OPERATIVES	a. Loans & Gurantee	a. 2 - 3 new Industries* b. Improvement of Co-operatives c. Loans	a. 15 Markets* b. Small Scale Industries c. Loans d. Crafts	a. Shops b. Crafts c. Improvement of Co-operative Societies
COMMUNICATION	a. 3 new Post Offices* b. 7 new Postal Agencies* c. 3 new Telephone Exchange			
WATER		a. 19 Settlements to get Water*	a. Wells	a. Wells
ELECTRICITY		a. 9 Settlements to get light*		
RURAL BANKS		a. 4 Co-operative Banks*		a. 6 Rural Banks*
RECREATION			a. 20 Local Parks*	Improvement of play fields
PHYSICAL PLANS		a. All Major Rural Areas*		
AGRICULTURE AND LIVESTOCK		a. 18 Veterinary Posts* b. Farm Inputs	a. Farm Inputs b. Improvement of slaughters Labs.	Poultry
MINES	Mineral prospecting			
WORKS & TRANSPORT	91 km. of roads*	a. 109km. of roads* b. Public Transport	94km. of roads* b. Public transport	a. Private Buses b. Acces Roads



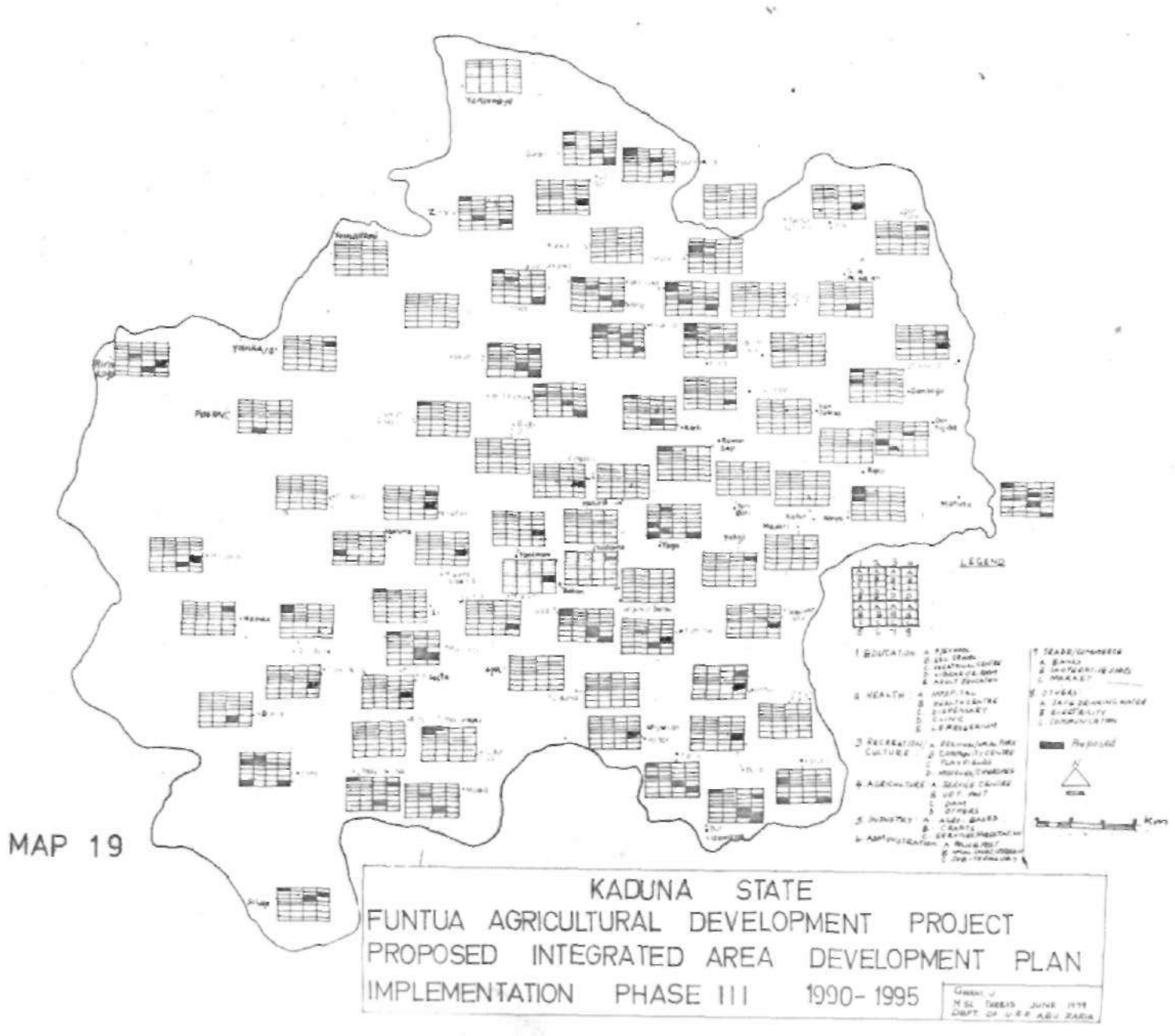
MAP 18

KADUNA STATE
FUNTUA AGRICULTURAL DEVELOPMENT PROJECT
PROPOSED INTEGRATED AREA DEVELOPMENT PLAN
IMPLEMENTATION PHASE II 1985- 1990

TABLE 13 PHASE III. VI NATIONAL DEVELOPMENT PLAN

See Map 19

AGENCIES AND FUNCTIONS	FEDERAL GOVERNMENT	STATE GOVERNMENT	LOCAL GOVERNMENT	LOCAL COMMUNITIES & INDIVIDUALS
EDUCATION	a. Improvement of Secondary at Bakori	a. 7 new Secondary Schools* b. 3 new U.T.C. c. 3 new Libraries	a. Improvement of Primary Schls. b. 7 new reading rooms* c. Adult Educ. improvement	a. Improvement in primary Schls. and Nusery Schools.
HEALTH		a. 2 new health Centres b. Improvement on others	a. 3 new dispensaries* b. 3 new Clinics* c. Improvement Leprosaria	a. Sanitation
ADMINISTRATION	a. 2 new Police Posts b. Improvement of Prisons and Police Posts.	a. 2 new local Courts b. 1 new Sub-treasury c. 3 new firestations d. 2 Mobile Courts		
COMMUNICATION	a. 3 new Post Offices b. 7 new Postal Agencies. c. 3 new Telephone Exchange			
TRADE, INDUSTRY & CO-OPERATIVES	a. Loans & Gurantee	a. 2-3 Industries* b. Loans c. Improvement of Co-operatives	a. 15 Markets* b. Loans c. Crafts d. Small Scale Industries	a. Shops b. Crafts c. Improvement of Co-operative Societies
WATER		a. 19 Settlements to get Water*	a. Wells	a. Wells
ELECTRICITY		a. 9 Settlements to get light*		
RURAL BANKS		a. 4 Co-operative Banks		6 Rural Banks
RECREATION		Improvement of Parks	Improvement of Parks	Play Fields Improvement
PHYSICAL PLANS		a. All Medium Size Villages to get Plans*		
AGRICULTURE & LIVESTOCK		a. 18 Vet. Posts* b. Farm Inputs c. Improvement of Farm Service Centres.	a. Improvement of slaughters Lab. b. Farm Inputs	Poultry
MINES	Mineral Prospecting			
WORKS AND TRANSPORT	91km. of roads	109 km. of roads*	94 km. of roads*	


LEGEND
KADUNA STATE
FUNTUA AGRICULTURAL DEVELOPMENT PROJECT
PROPOSED INTEGRATED AREA DEVELOPMENT PLAN
IMPLEMENTATION PHASE III 1990- 1995

MAP 19

TABLE 14 PHASE IV. VII NATIONAL DEVELOPMENT PLAN

See map 20

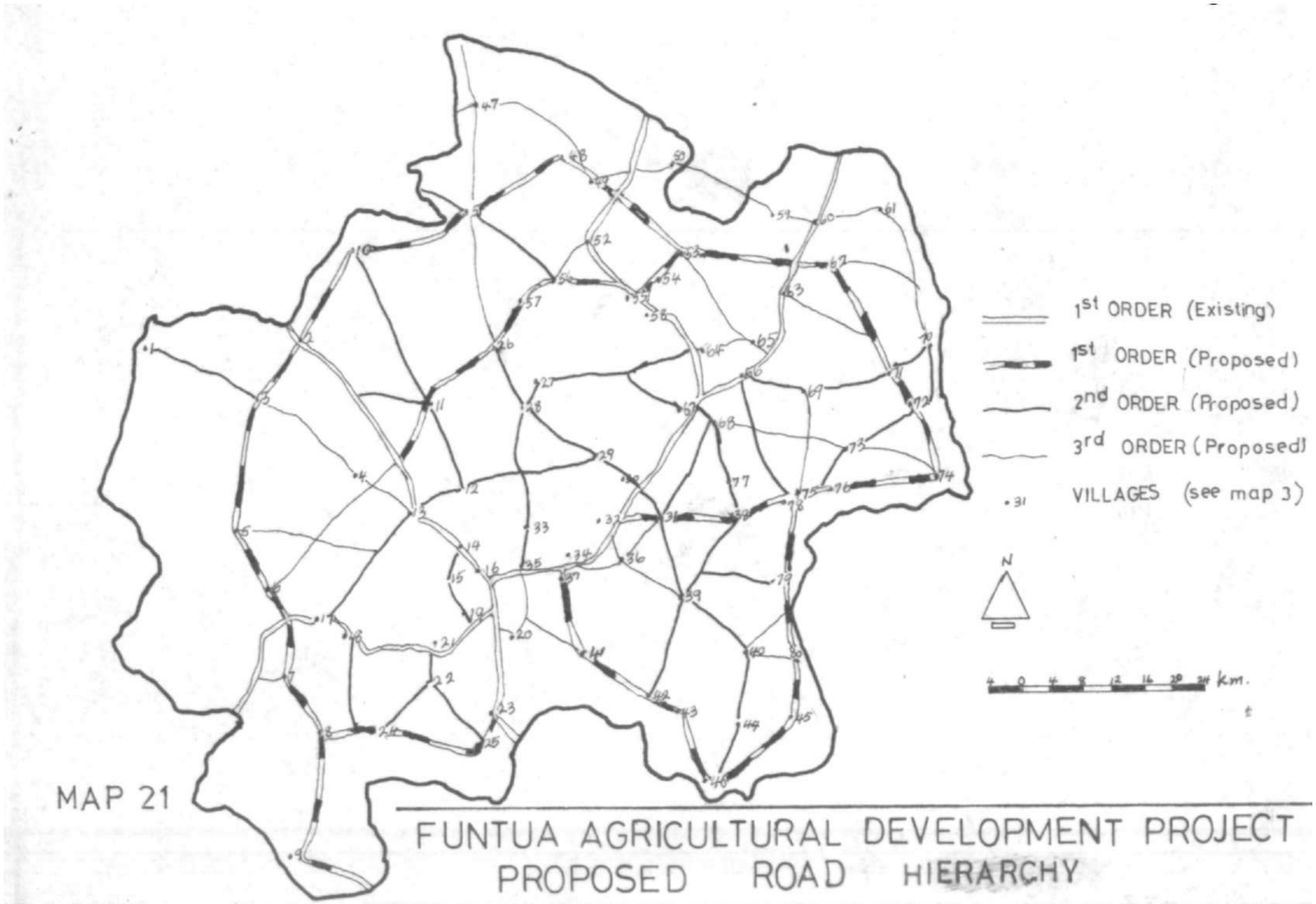
AGENCIES AND FUNCTIONS

	FEDERAL GOVERNMENT	STATE GOVERNMENT	LOCAL GOVERNMENT	LOCAL COMMUNITIES & INDIVIDUALS
EDUCATION	Improvement of Secondary Schod at Bakori	a. 7 new Secondary Schools* b. 3 new V.T.C.* c. 3 new Libraries*	a. Improvement of Prim.Schools. b. 7 new R/Rooms c. Improvement of Adult Educ.	Improvement of Primary & Nusery Schools
HEALTH		a. 2 new health Centres* b. Improvement of others	a. 3 new despensaries* b. 3 new Clinics* c. Improvements	a. Chemist Shops b. Sanitation
ADMINISTRATION	a. 2 new Police Posts* b. Improvement on others and Prisons	a. 2 new local Courts* b. 1Sub-treasury* c. 2 new firestations* d. 2 Mobile Courts		
TRADE, INDUSTRY & CO-OPERATIVES	Loans and Gurantee	a. 1-2 Industries* b. Loans c. Improvement of Co-operatives	a. 15 Markets* b. Loans c. Crafts d. Small Scale Industries.	a. Shops b. Crafts etc. c. Improvement of Co-operative Societies
COMMUNICATION	a. 2 new Post Offices* b. 7 new Postal Agencies* c. 2 new Tel. Exchange			
WATER		a. 19 Settlements to get Water*	Wells	Wells
ELECTRICITY		a. 9 Settlements to get lights*		
RURAL BANKS		a. 4 Co-operative Banks*		6 Rural Banks*
PHYSICAL PLANS		All farming Villages to get Plans*		
AGRICULTURE & LIVESTOCK		a. 18 Vet.Posts* b. 1 Cattle Rauch and Breeding Centre* c. Farm Inputs	a. Improvement on slaughters Lab. b. Poultry at all district Hqs. c. Farm Inputs	Poultry
MINES	Mineral Prospecting			
WORKS AND TRANSPORT	81 km of roads	a. 1138 km. of roads. b. Public Transport c. Road Maintenance.	a. 85 km. of roads. b. Public transport. c. Road Maintenance.	a. Private Buses. b. Access Roads.
RECREATION		Improvement of Park-(Regional)	a. Improvement of Parks(Local)	a. Improvement of Play Fields



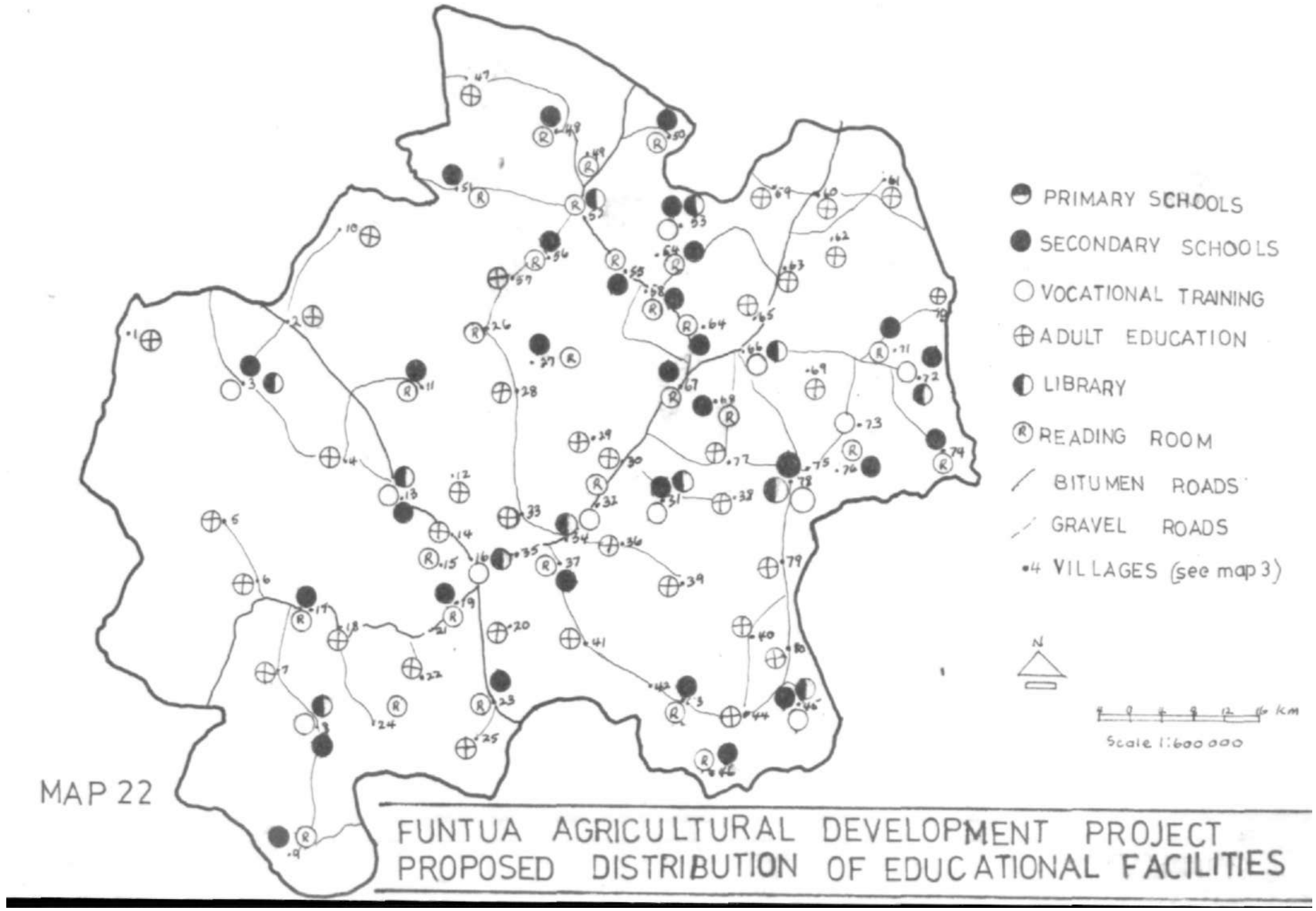
MAP 20

KADUNA STATE
FUNTUA AGRICULTURAL DEVELOPMENT PROJECT
PROPOSED INTEGRATED AREA DEVELOPMENT PLAN
IMPLEMENTATION PHASE IV 1995 – 2000



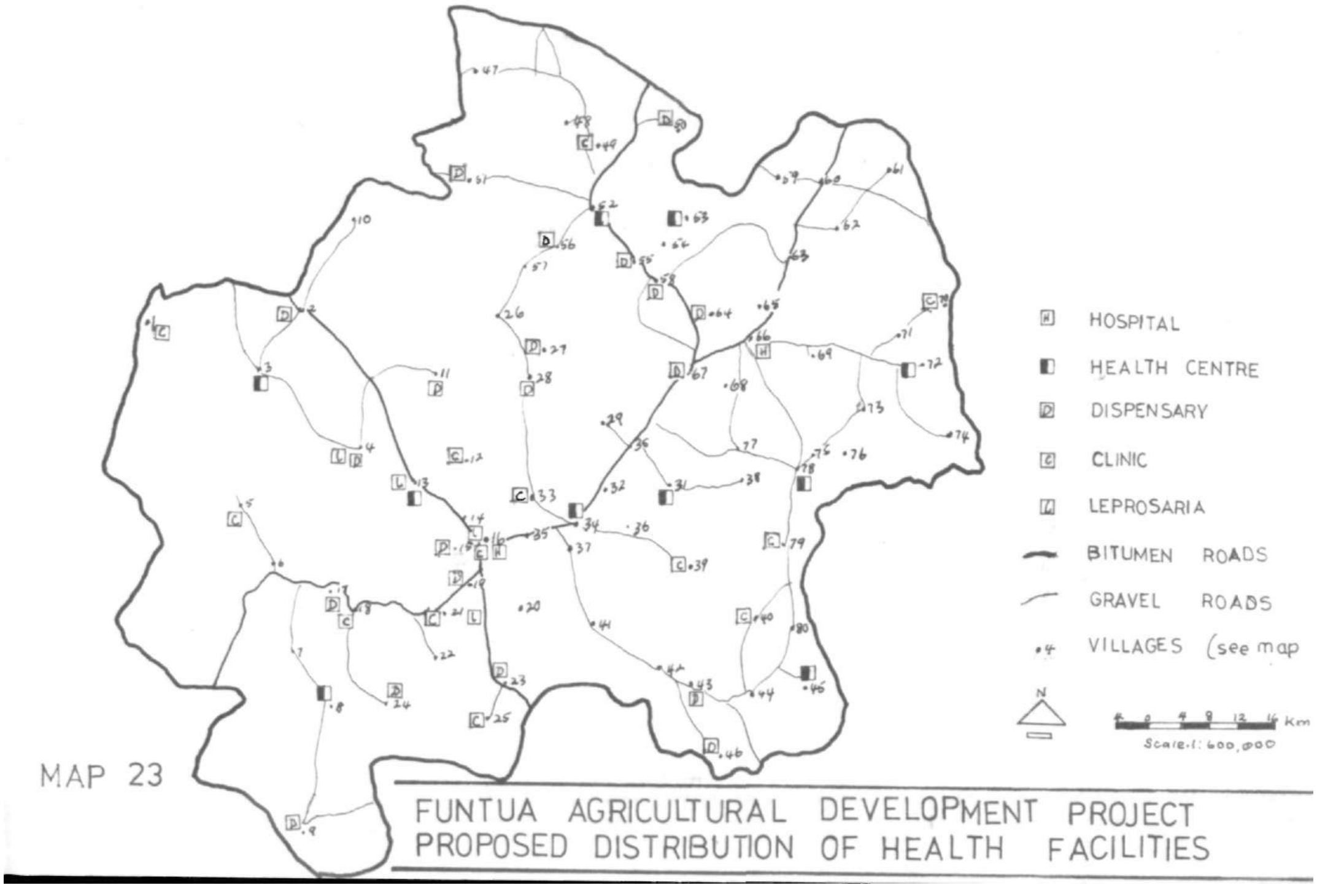
MAP 21

FUNTUA AGRICULTURAL DEVELOPMENT PROJECT
PROPOSED ROAD HIERARCHY



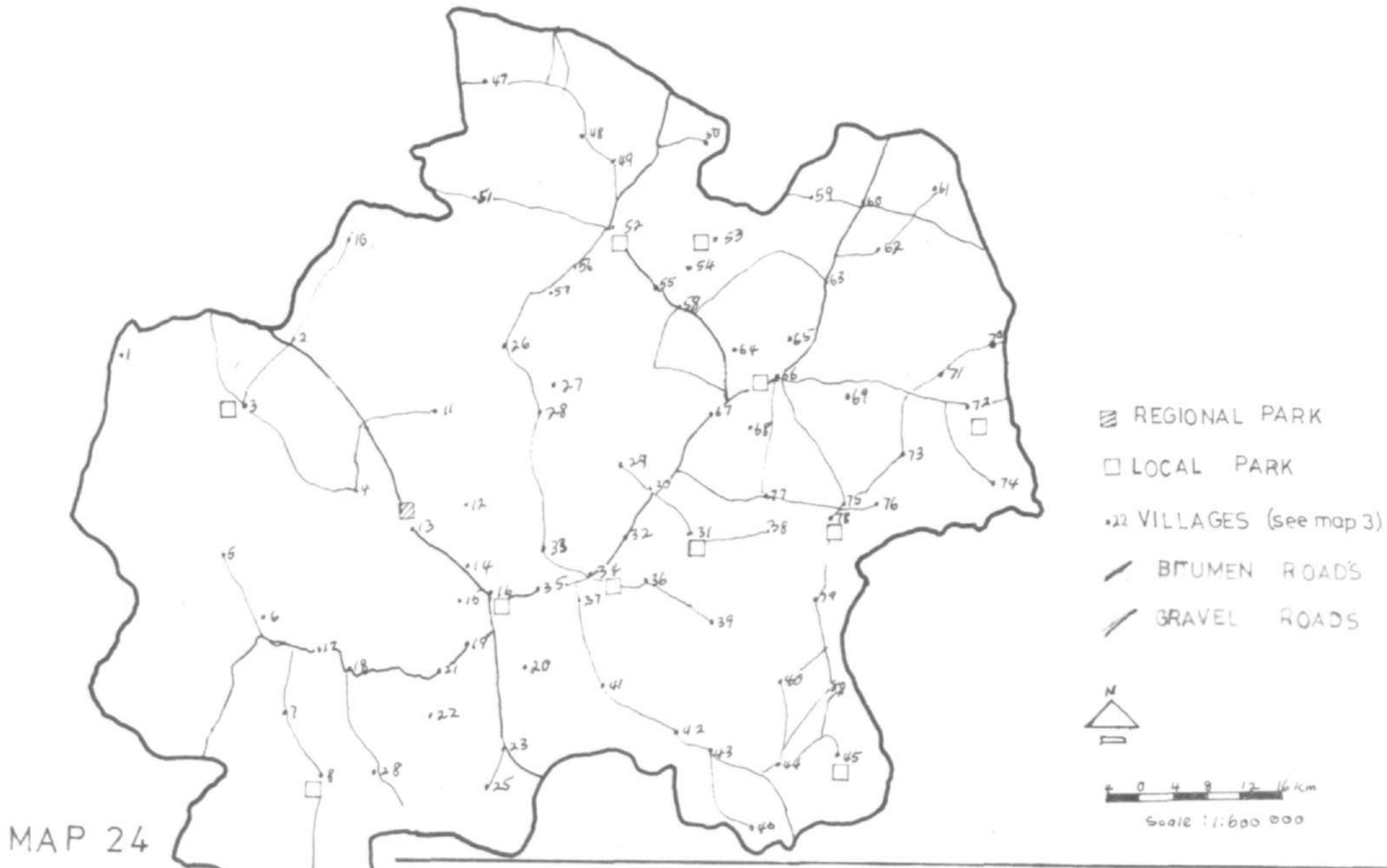
MAP 22

FUNTUA AGRICULTURAL DEVELOPMENT PROJECT
PROPOSED DISTRIBUTION OF EDUCATIONAL FACILITIES



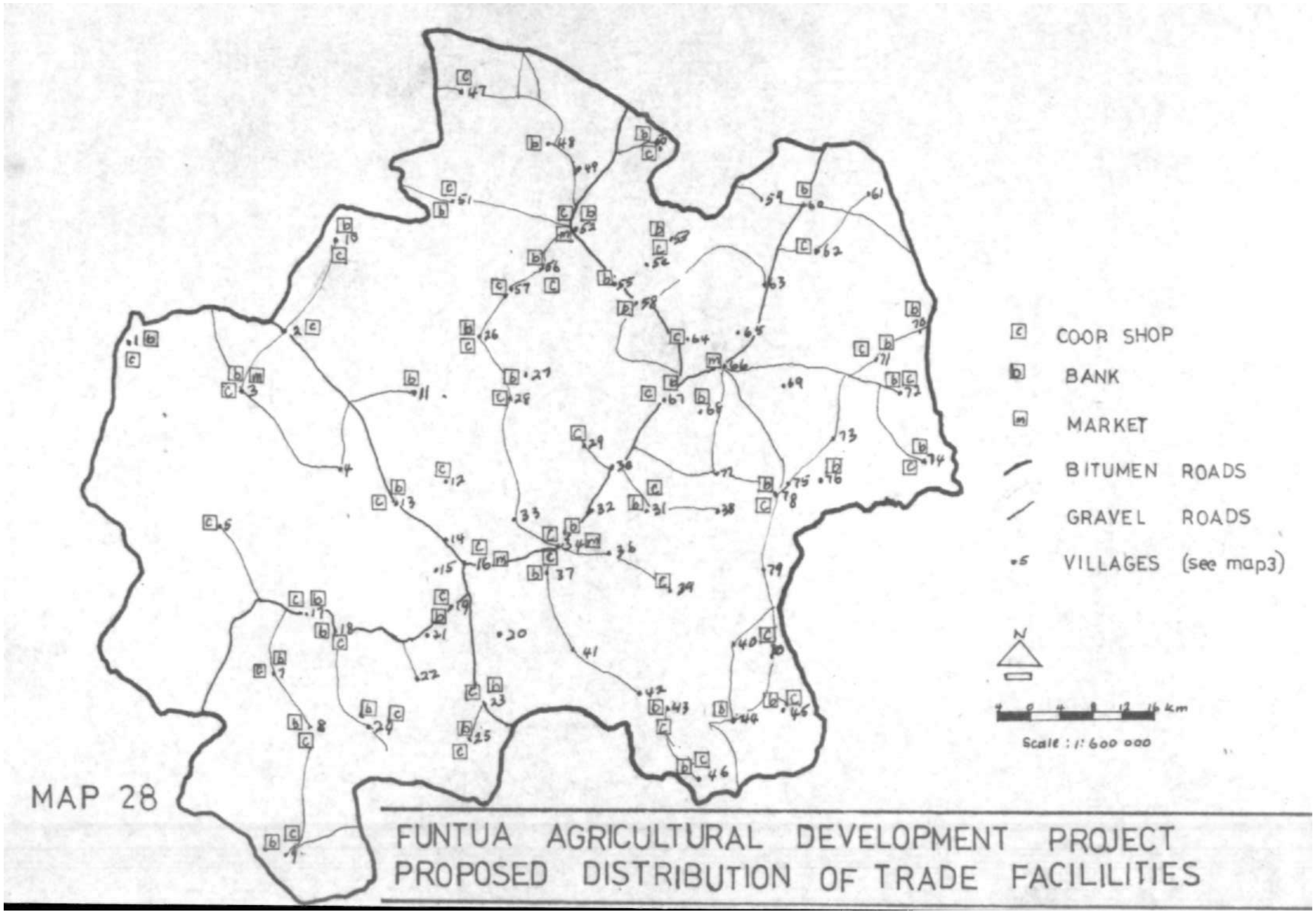
MAP 23

FUNTUA AGRICULTURAL DEVELOPMENT PROJECT
PROPOSED DISTRIBUTION OF HEALTH FACILITIES



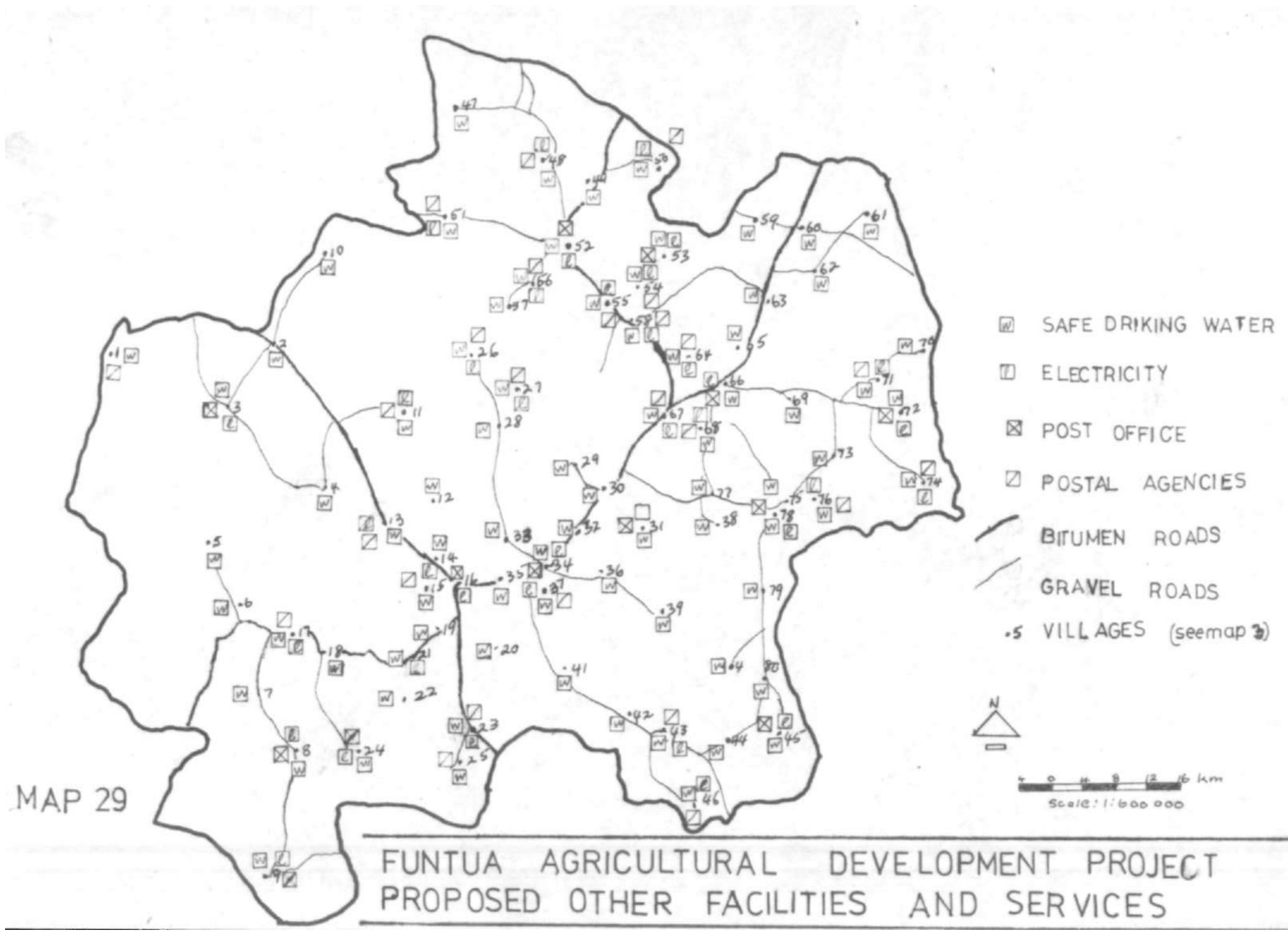
MAP 24

FUNTUA AGRICULTURAL DEVELOPMENT PROJECT
PROPOSED RECREATIONAL/CULTURAL FACILITIES



MAP 28

FUNTUA AGRICULTURAL DEVELOPMENT PROJECT
PROPOSED DISTRIBUTION OF TRADE FACILILITIES



MAP 29

FUNTUA AGRICULTURAL DEVELOPMENT PROJECT
PROPOSED OTHER FACILITIES AND SERVICES

BLE: 15 FUNCTIONS OF VARIOUS AGENCIES IN THE INTEGRATED AREA DEVELOPMENT PLAN AND FUNCTIONS

AGENCY	FEDERAL GOVERNMENT	STATE GOVERNMENT	LOCAL GOVERNMENT	LOCAL COMMUNITIES AND OTHER INDIVIDUALS
Ministry of Health	1.Policy 2.Guidelines 3.Training	1.Hospitals 2.Health Centres 3.Nutrition & Health Education.	1.Dispensaries 1 2.Clinics 3.Child and maternal care 4.Sanitation	Chemist shops Sanitation First Aid groups.
Ministry of Education	1. Policy quidelines 2. Secondary Schools	1.Primary and Secondary 2.Vocational Centres 3.Libraries	1.Primary/Schools 2.Adult Education 3.Reading groups	1.Primary/ Schools 2.Nurseries Schools
Ministry of Works and Transport.	Policy 1.International and Inter-regional highways Railways	1.State Roads 2.Major feeder roads 3.Bridges and culverts 4.Public transport 5.Inter-city	1.Minor feeder roads 2.Road maintainance. 3.Bridges and culverts. 4.Public transport 5.Inter-city	1.Access ro Passenger buses. Private
Ministry of Communication.	1. Policy 2.Post Offices 3.Telephone			
Ministry of Trade, Industry & Co-operatives.	1.Policy 2.Major Industries 3.Loans/grants 4.Co-operatives Training	1.Agro-based Industries 2.Banking Co-operatives 3.Co-operatives 4.Loans	Markets 3.Small scale Industries 4.Crafts etc. 5.Loans	Shops 2.Co-operatives Society 3.Small Rural Industries Crafts.
Ministry of Agriculture and Rural Dev Development	1.Policy 2.Major farm inputs 3.Training	1.Farm Inputs 2.Extension Services 3.Farm Service Centres 4.Veterinary Services 5.Village development Programmes. 6.Loans and aids.	Slaughters Lab. Village development. Loans and aids	Self-h projects
Ministry of Lands & Surveys.	1.Policy 2.Aerial Photographs 3.Survey maps	1.Aerial photos 2.Survey maps 3.Physical plans 4.Layo	Physical developments Garbage Collection and disposal	Garbage Collection
Ministry of Mines and Power.	1. Policy 2.Electricity 3.Mineral prospecting			

Table 15 (Contd)

AGENCY	FEDERAL GOVERNMENT	STATE GOVERNMENT	LOCAL GOVERNMENT	LOCAL COMMUNITIES AND OTHER INDIVIDUAL
Water Board	1. Policy	1.Dams,bore holes and pipes	Wells	1. Wells
Rural Electri-city	1.Policy	1.Machinery & Equipment		
Housing Authority	1. Policy 2. Building Materials	1.Loans, Design 2.Banking Material	1. Design 2.Site provision 3.Building material	1. Local Building material
Inistry of Finance	1.Policy 2.Grants	1.Grants 2.Loans 3.Subsides 4.Fines,fees etc.	1.Grants 2.Subsides 3.Fines etc.	1.Individual enterprises 2.Voluntary Contribution. 3.Levies etc.
Ministry ofInformation.& Tourism	1.Policy	1.Regional Parks	1.Local Parks	
Administration.	1. Police 2. Courts 3. Prisons	1. Courts 2. Sub-treasury 3. Firestations.	1. L.G.A. Council	

The road hierarchy as already mentioned is divided into 4 levels. The Federal Government will be responsible for 1st order roads while the state government will be responsible for 2nd order roads and the local government will take care of the 3rd order roads. The 4th order roads are village access roads which will be the responsibility of the rural communities in each village with government helping with technical advice or machinery and manpower where possible.

A total length of 1258 km. of new roads is proposed for the period 1980 - 2000 A.D.

TABLE 16. PROPOSED NEW ROADS AND THEIR PHASING OUT:

ROAD HIERARCHY	PHASING OUT	DESCRIPTION OF ROAD
1st Order	1st Phase	a. Kabomo-Tsiga-Kauyendawo-Masari-Kanya-Kahuta-Dankajiba-Gamzago (60 km.) b. Bakori-Tandama-Ungwar Madaki-Danja-Damahawayi-Kafuta (53 km.)
	2nd Phase	a. Gamzago-Gora Maikasuwa-Ketare-Kadaboki-Gurbi (51 km.) b. Kafuta-DutsenKura-Sabuwar Kasa-Masari (28 km.) c. Gurbi-YanMallami (31 km.)
	3rd Phase	a. YamMallami-Yankara-Faskari-Maigoro-Machika-Damari-Sabua (91 km.)
	4th Phase	a. Daudawa-RuwanGodiya-Kakumi-Mabai-Gatarkawa-Yargoji-Kukasheka-Ketare (56 Km.) b. Gamji-MagajinWando-Maska-Tudun Iya (28 km.)
2nd Order	1st Phase	a. Kurami-Yankwani-Guga Disa-Kandaramo-Gatarkawa-Zango (62 km.) b. Kandaramo-Yaba-Malumfashi-Yantalata-Gamzago-Makawachi-Dankajiba-Rigoji-Kanya (78 km.)
	2nd Phase	a. Bakori-Yankwani-Tafoki-Ruwangodiya-YanMallami (51 km.) b. Dandume-Mairuwa-Tafoki-Jargaba (44 km.) c. Faskari-Birnin Kogo (16 km.) d. Kada boki-Gundana (10 km.)
	3rd Phase	a. Magajin Wando-Tumberkai-Mahuta (15 km.) b. Tamarke-Tsiga-Ruwansayi (25 km.) c. Tamarke-Gozaki-Dabai-Danmabawayi Junction (26 km.) d. Danja-Dabai-Kafuta (16 km.) e. Kadaboki-Gundana (10 km.) f. Masari-Malumfashi (17 km.)

.../2

TABLE 16. CONTD.

ROAD HIERARCHY	PHASING OUT	DESCRIPTION OF ROAD
2nd Order Contd.	4th Phase	a. Unguwar Madaki-Tamarke-Kauye dawo-Yaribori-Ruwansayi-Malumfashi (48 km.) b. Jargaba-Kandaramo-Kakumi (18 km.) c. Magajin Wando/Gamji Junction-Dankan-Kare (24 km.) d. Mairuwa-Dankankare/Mahuta Junction (16 km.) e. Tumberkai-Maska (10 km.) f. Sabuwarkasa-Tamarke/Kauye Dawo Junction (8 km.) g. Makera-Saboline-Maigamji (9 km.) h/ Gatarkawa-Kankara (7 km.) i. Ruwangodiya-Mairuwa Yankara Junction (10 km.)
3rd Order	1st Phase	a. Mairuwa-Dandawa-Faskari (25 km.) b. Makawrachi-Dansare-Dayi (28 km.) c. Tudun Iya/Funtua Junction-Goya-Tandawa (13 km.) d. Yaritsamiya-Gurbi' (26 km.)
	2nd Phase	a. Maigoro-Dandume/Mairuwa Junction (16 km.) b. Mabai-Zango-Yaritsamiya (30 km.) c. Machi[illegible]ta-Daudawa (20 km.) d. Bako[illegible]-Unguwar Barde-Tsiga-Makurdi-Jarg[illegible]a (25 km.)
	3rd Phase	a. Kafu[illegible] Yantalata-Gora Maikasuwa-Dayi-Tuge[illegible] Na'alma-Gundana (56 km.) b. K[illegible]bo[illegible]-Unguwar Barde-Tamarke (16 km.) c. Goya[illegible]urami (10 km.) d. Yari[illegible]ri-Makurdi/Karfi Junction (12 km.)
	4th Phase	a. Ruwa[illegible]ayi-Rigoji-Mahuta (31 km.) b. Yan'[illegible]a-Gamzago/Gora Maikasuwa Junction (14 km.) c. Bori[illegible]awa-Ketare (17 km.) d. Keta[illegible]-Gundana/Tugen Na'alma Junction (9 km.) e. Dama[illegible]-BirninGwari road (9 km.) f. Yab[illegible]Borin Dawa/Ketare Junction (5 km.)

C H A P T E R 5

5.00 IMPLEMENTATION PROPOSALS AND CONCLUSION:

It is not sufficient to draw up beautiful development plans. The implementation strategy is very important in order to achieve the aims and objectives of such plans. A good plan needs a strong institutional framework, a workable organisation and management plus a strong and stable source of finance for proper and effective implementation.

5.10 INSTITUTIONS AND AGENCIES REQUIRED:

All the State Government Ministries and Departments will be involved. These are detailed out in Table 16

5.11 ORGANISATION, ADMINISTRATION AND MANAGEMENT:

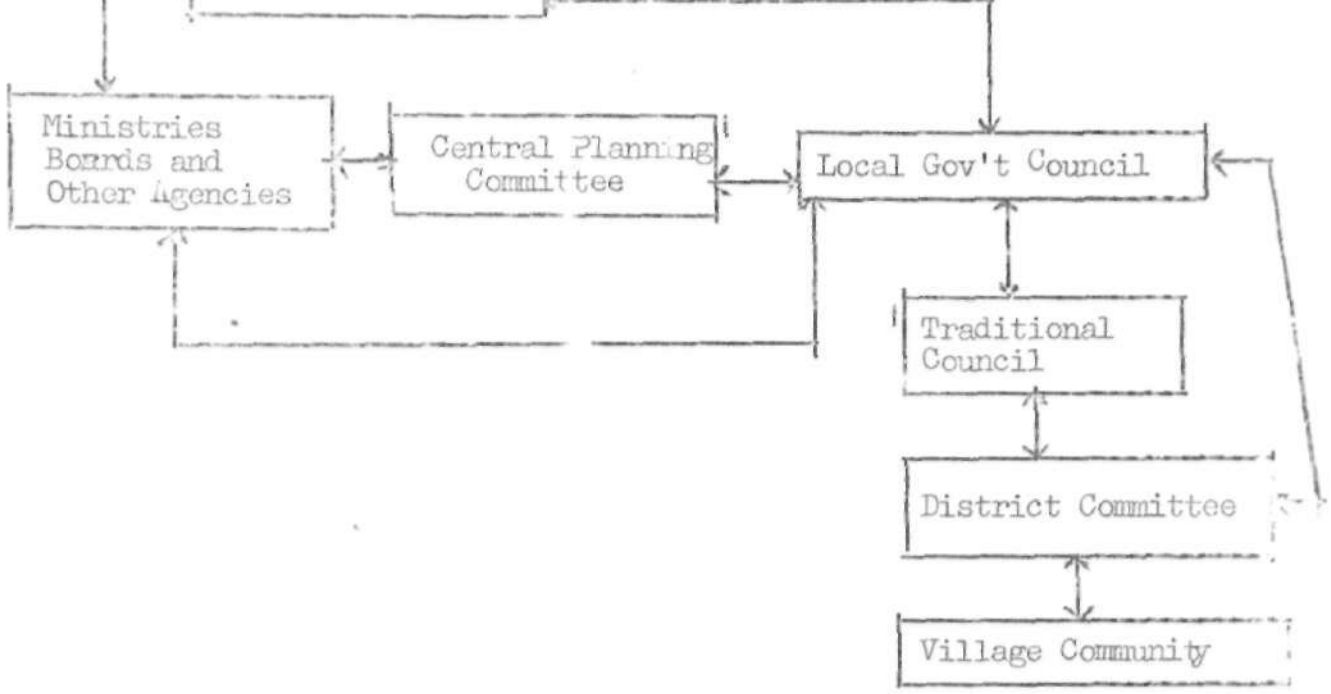
A strong Central Planning Commission is proposed for the State with the Governor or whoever is the head of the government as the chairman. This Commission will be responsible for drawing up the development plan for the state which will include the Integrated Area Development Plan. The Chairman of the Commission being the head of government can push many programmes through which otherwise could have remained un implemented.

The Planning Commission should have a Central Planning Committee made up of experts from all fields of development including administration. These experts will draw up the integration programmes using suggestions from the different Ministries and departments and also advise the Planning Commission on professional matters. The Planning Commission will then draw up the Integrated Area Development Plan specifying the programmes of each Ministry and agency and suggesting the implementation stages.

Each Ministry or agency will execute plans suggested by it and included in the plan or any other programme so included by the Planning Commission.

The Planning Commission will co-ordinate, monitor and promote contacts between all the agencies to ensure un interrupted exchange of ideas, information and feedbacks.

Fig.2 Organisational Chart for I.A.D.P. Implementation:



5.12 SOURCES OF FINANCE:

Finance is one of the biggest problems in plan implementation. It has always been the idea of most rural people that the government should provide every thing for them. Even the rich ones amongst them will not like to spend their money on development programmes that will benefit the general public such as roads, schools or dispensaries but will rather invest on things that will bring gain to the individuals and their immediate families. With the many development programmes and other activities hanging on the scarce government resources, it is necessary that other avenues of financial resources be sought in order to help implement development programmes.

The rich individuals amongst the rural communities can be induced through tax relief and other ways to involve in development programmes like building of schools which can be named after the donors etc.

The village community itself is another proposed source of finance. They can be encouraged to give voluntary contributions either in kind like labour or material or even in cash for development programmes. Proper organisation of the sale of their farm products can bring them more money and may go on to make them wish to contribute to develop their areas.

Other sources of finance include:

Grants from Federal and State Governments

Matching grants

Levies

Property Tax

Fees and Fines

Loans from private financial institutions such as banks.

5.20 C O N C L U S I O N:

One of the greatest Institutions for the implementation of development programmes is the local community and the accepted traditional leadership. Other groups include the local government, development committees, self-help groups, and local interest groups and individuals such as religious groups, women organisations, youth groups and even political parties. Care must be taken to make sure that such groups really represent the interest of the majority in the rural community and efforts be made to co-ordinate their contributions properly. Since such groups have considerable influence on their members, they can be used in a great way to eliminate local ignorance and alienation which can sabotage development programmes through lack of comprehension of the programmes or the improper use or maintainance of a new facility, or suspicion of the motives of the development agency; or even through the opposition to project aims or people just expecting the government to provide everything for them thus defeating the possibility of generating self-help projects.

Rural people must be given the chance to actively participate in the formulation and implementation of development policies and programmes. This includes planning, assessment of local needs and the implementation. Local needs, and wishes in plan formulation and implementation can be sought through existing representative institutions, or through any accepted special institutions created for such a purpose.

APPENDIX 1

EDICT ESTABLISHING F.A.D.P.

N.C.L.N. 5 of 1975

FUNTUA AGRICULTURAL DEVELOPMENT PROJECT ESTABLISHMENT OF FUNTUA PROJECT EXECUTIVE COMMITTEE AND FUNTUA PROJECT MANAGEMENT UNIT

In pursuance of the terms of the loan agreement which requires a publication in the State Gazette, it is hereby notified for general information that Funtua Project Executive Committee and Funtua Project Management Unit have been set up with composition, objectives and duties as here under stated:

2. The FPMU would be managed by a Project Manager and its objectives should be:-

(a) development of Funtua and Malumfashi Administrative Divisions with a view to increasing production of agriculture and raising the living standards of the rural population;

(b) construction of roads, water supplies and soil conservation works associated with agricultural development;

(c) development and management of seed multiplication farm;

(d) training of project staff and farmers;

(e) provision of extension, credit and marketing services;

(f) provision of extension, credit and marketing services;

(g) procurement of farm inputs; and

(h) development of supporting infrastructure such as houses, buildings, offices and others for the above services.

3. The FPMU would be controlled by the Funtua Project Executive Committee (FPEC) which would be made up as follows:

(i) Permanent Secretary, Ministry of Agriculture Natural Resources .. .. Chairman

(ii) A representative of Ministry of Works and Housing .. .. Member

(iii)	A representative of Ministry of Finance	Member
(iv)	A representative of the North-Central State Water Board	Member
(v)	A representative of Ministry of Trade, Industry and Co-operatives	Member
(vi)	A representative of Ministry of Economic Planning and Rural Development	Member
(vii)	A representative of Katsina Local Authority	Member
(viii)	Direct of Federal Department of Agriculture Or his representative	Member
(ix)	Chief Agricultural Officer, North-Central State	Member
(x)	Two members from the project area to be appointed by the Military Governor ..	Members
(xi)	The Project Manager	Member
(xii)	The Project Chief Administrative Officer	Secretary

4. FPEC would be responsible to the Commissioner of Agriculture and would have the following responsibilities:

(a) Policy - FPEC would determine agricultural and development policy and would consult with the Federal Government and the World Bank when any major changes in policy may be required;

(b) Finance:

(i) FPEC would approve the annual budget and would ensure that sufficient Government funds are readily available to the project;

(ii) FPEC would appoint independent auditors;

(iii) FPEC would submit audited statement of accounts to the Commissioner of Agriculture within four months of the closure of each financial year;

(iv) FPEC would approve the opening of project bank accounts; and

(v) the Chairman of FPEC would approve the monthly cash flow statements submitted by the Manager of FPEC;

(vi) approve annually the terms of lending to project farmers on the basis of recommendations made by FPMU;

(c) Staff and Personnel Matters - In consultation with the Manager of FPMU, FPEC would be responsible for the appointment of all senior project staff and employees, their terms and conditions of employment and annual review of salaries and allowances;

(d) Award of Contracts - FPEC would on the advice of the Manager of FPMU be responsible for approval of any single contract valued at more than ₦30,000;

(e) Inter-Departmental Co-ordination - The FPEC through its members would be responsible for the co-ordination at Ministry level for those issues that may effect the proper development of the project.

5. Meetings of FPEC(a). The Chairman would preside over all the meetings of the FPEC which he attends, and in his absence the present members would appoint one of their member to preside over such a meeting.

(b) The Chairman of the FPEC would invite the FPEC to meet at such time and place as he may think suitable; provided that no more than three months would elapse between any meeting and the next. In the absence of the Chairman, the Project Manager would call the FPEC to meet whenever he deems this necessary.

(c) Six members of the FPEC would constitute a quorum of any meeting of the FPEC. The FPEC would pass its decisions by the majority of the votes of its members and voting, and in case of equality of votes the Chairman would have a casting vote.

(d) The FPEC may call any person to attend any of its meeting without that person having a counted vote.

6. FPMU would be responsible to FPEC for the day-to-day operations of the project. In particular it would be responsible for the carrying out of the objectives as stated in paragraph 2 above. FPMU would be managed by a Project Manager who would report directly to the Chairman of FPEC. The main duties of FPMU would be:

(a) The implementation of an agricultural development program within Funtua and Malumfashi Administrative Divisions following the policy guidelines of the FPEC.

(b) the control and operation of the project revolving credit fund;

(c) the preparation of annual budgets and cash flows for approval by FPEC. In particular FPMU would submit to the Chairman of the FPEC monthly cash flow statements indicating any changes in requirements for State Government funds due to changes in requirements expenditures and in flow anticipated from the Federal Government. Unless informed to the contrary within five days of dispatch of such statements to the Chairman of the FPEC, the manager would be authorized to make the proposed expenditures;

(d) the recruitment of project staff, in consultation, when necessary with other Government Departments, and for senior staff, with approval of FPEC;

(e) the advertising, negotiating, calling for tenders, and after approval from FPEC, for concluding such contracts with persons and organizations either inside or outside the State for the erection of buildings, the construction of civil works and the supply of goods, services and materials as may seem to be requisite for the proper discharge of its duties;

(f) the operation of project bank accounts;

(g) the preparation of reimbursement claims against project expenditure, for submission to the Federal Government and World Bank.

7. FPMU would administer a field evaluation unit that would be technically directed by a Federal Government controlled Project Monitoring and Evaluation Unit (PMEU).

8. FPMU would prepare quarterly and annual reports for the simultaneous submission to FPEC, North-Central State Executive Council, Federal Government of Nigeria and the World Bank.

9. FPMU would be delegated any additional duties and powers by FPEC to ensure the attainment of the objectives as set out in the order.

ALHAJI OTHMAN LADAN BAKI,
Commissioner of Agriculture & Natural Resources,
North-Central State of Nigeria,
Kaduna.

APPENDIX: 2

LIST OF MAIN VILLAGES IN THE STUDY AREA AND THEIR POPULATION

District	Main Village	Number of Sattelite Villages	Population	
			1978 Estimate	2000 Projected
Funtua	Maigamji	9	10,000	15,000
	Saboline	13	10,000	15,000
	Tafoki	4	8,000	12,000
	Ruwangodiya	10	10,000	15,000
	Damdume	21	13,000	19,500
	Maska	9	7,000	10,500
	Dankankare	8	9,000	13,500
	Goya	7	4,000	6,000
	Mahuta	8	8,000	12,000
	Tumburkai	6	9,000	13,500
	Magajin Wando	8	13,000	19,500
	Mairuwa	38	15,000	22,500
	Makera Galadima	11	8,000	12,000
	Tudun Iya	6	11,000	16,500
	Yan Mallamai	11	8,000	12,000
	Funtua	14	42,000	50,000
Kankara	Kankara	4	8,000	12,000
	Zango	7	12,000	18,000
	Gundana	8	12,000	18,000
	Gurbi	6	12,000	18,000
	Yargoje	8	13,000	19,500
	Mabai	7	6,000	9,000
	Kada Doki	6	8,000	12,000
	Kwakare	4	13,000	19,500
	Yartsamiya	4	2,000	3,000
	Ketare	9	18,000	27,000
	Gatarkawa	12	11,000	16,500
	Kukasheka	7	11,000	16,500
Bakori	Yankwani	5	8,000	12,000
	Dabai	5	8,000	12,000
	Makurdi	6	2,000	3,000
	Guga	8	6,000	9,000
	Madaki	10	9,000	13,000
	Tandama	5	3,000	4,500
	Kakumi	9	10,000	15,000
	Dantige	8	10,000	15,000
	Jargaba	5	8,000	12,000
	Kurami	6	8,000	12,000
	Yakaji	9	10,000	15,000
	Tamarke	5	9,000	13,500
	Kandaramo	7	13,000	19,500
	Kabomo	4	6,000	9,000
	Jiba	9	11,000	16,500
	Kahuta	13	16,000	24,000
	Bakori	9	14,000	21,000
	Unguwar Barde	11	4,000	6,000
	Danja	115	11,000	16,500
	[illegible]	14	16,000	24,000

District	Main Village	Number of Sattelite Villages	Population	
			1978 Estimate	2000 Projected
Malumfashi	Karfi	14	12,000	18,000
	Malumfashi	17	26,000	39,000
	Yammama	5	2,000	3,100
	Gora Maikasuwa	13	6,000	9,000
	Dam Sara	6	4,000	6,000
	Dayi	7	8,000	12,500
	Gamzago	17	12,300	18,500
	Makaurachi	7	7,000	10,500
	Dutsen Kura	2	4,000	6,000
	Mahuta	13	11,000	16,500
	Rigoji	9	6,000	9,000
	Kafur	8	5,000	7,500
	Yantalata	4	5,000	7,500
	Dankajiba	17	14,000	21,000
	Yaribari	10	9,000	13,500
	Ruwan sayi	11	12,000	18,000
	Masari	16	20,000	31,300
	Gazoki	7	7,000	10,500
	Kanya	9	11,000	16,500
	Sabuwarkasa	9	7,000	10,500
	Yaba	14	12,000	18,000
	Barin dawa	7	5,000	7,500
	Tugen Na'alma	3	5,000	7,500
Faskari	Yankara	9	8,000	12,000
	Machika	9	6,000	9,000
	Maigera	4	8,000	12,000
	Sabua	7	11,000	16,500
	Gamji	6	16,000	24,000
	Faskari	12	13,000	19,500
	Damari	3	6,000	9,000
	Birnin Koge	7	9,000	13,500

Note The figures have been rounded up.

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