

PROBLEMS AND PROSPECTS OF INDUSTRIAL ESTATE DEVELOPMENT IN NIGER STATE

(A CASE STUDY OF MINNA)

BY

MOHAMMED SANI USMAN

REG NO. PGD/GEO/98/99/018

BEING THESIS PRESENTED TO THE DEPARTMENT OF GEOGRAPHY,
FEDERAL UNIVERSITY OF TECHNOLOGY MINNA IN PARTIAL
FULFILMENT OF THE REQUIREMENT FOR THE AWARD OF A POST
GRADUATE DIPLOMA CERTIFICATE IN ENVIRONMENTAL
MANAGEMENT

APRIL 2000

area of about 150,255 hectares of land and it consist of 31medium plot of 100 X 100metres for medium industries and 15 large plots of 120 X 138 metres for heavy industries .There is provision for other facilities like Petrol filling stations, Banks, Super markets, Clinic, Fire services e.t.c.

1.1 AIMS AND OBJECTIVES OF THE STUDY

The main aims of this analysis are:-

- (a) To highlight the problems attendant to industrial estate development in Niger State with particular reference to minna.
- (b) To examine the impact of industrial development on the economic growth of the state.
- (c) To examine the dispersal of industrial estate within minna.
- (d) To examine the prospects of the development of industrial estate in minna

In order to achieve the above stated aims, I intend to objectively analyse the problems encountered in the development of industrial estate through:-

- (a) The establishment of the industrial potentials of the state and
- (b) Looking at the role of governmental and non-governmental agencies in the development of industrial estate.

From the foregoing I wish to make some recommendations for these problems with a view to solving them.

1.2 JUSTIFICATION FOR THE STUDY

Industrial development of the economically advanced nations provide an empirical evidence of the common pattern of growth. This is because industrialization is the key of economic progress in most countries and this tend to raise the physical out put per head. This is manifested in the national output increase and the average product per worker is higher in manufacturing than agriculture in low income economics (Maize 1963).

There are many advantages attributed to the growth of industrial development and these justifies the cause of this study:-

- (a) The problem of unemployment is reduced to the bearest minimum in many developing countries.
- (b) Many towns and cities own their growth to influx of rural dwellers who thronged the urban centres in search of jobs and better living conditions as a result of the basic infrastructure available in the urban centres.
- (c) Industrial development has opened many avenue for government to get more revenue for further development programmes.
- (d) Industrial development has placed many nations on sound footing of economic growth and scientific researchers.

1.3 SCOPE OF THE STUDY

Land, one of the factors of production is said to be fixed, and the chances of expanding or increasing the land area is impracticable though so is the scope of this case study. The development of industrial estate in Niger State has been bewitched by so many factors that militated against concerted efforts. Some of these problems are man – made while others are natural. I have also tried to confine myself within the scope of the studies by examining the problems at stake that tend to hamper industrial development and make such suggestions and recommendations. The study's scope does not go beyond the subject topic "The problems and prospects of industrial estate development in Niger State"

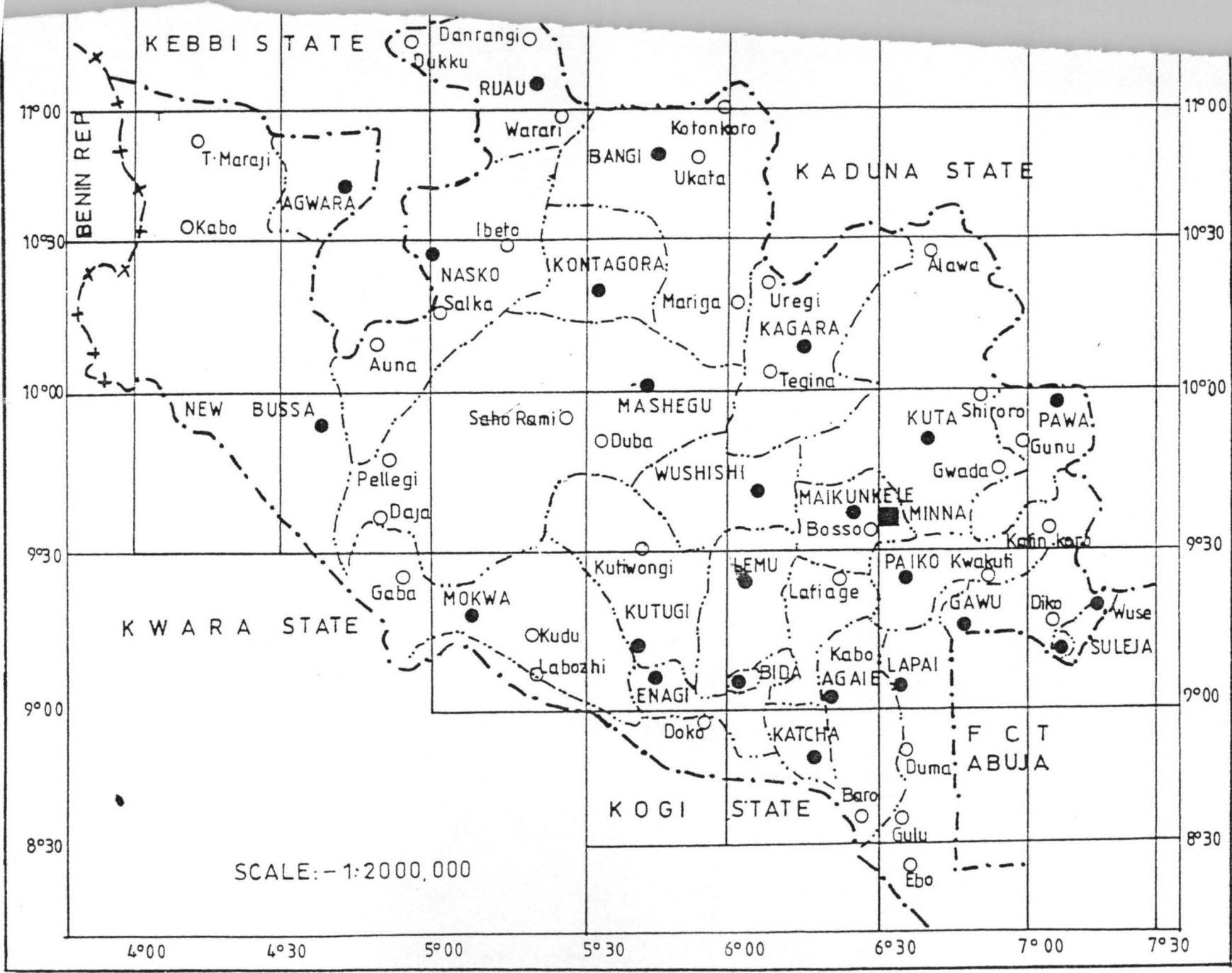
1.4 LIMITATIONS

In carrying out this research work, a number of limiting factors were encountered and these include:-

- (i) Administrative protocols. Some governmental institutions or agents where relevant information's / data are to be acquire were either delayed or refuse the supply of these information
- (ii) Poor response from the general public being orally interviewed on the development of industries estate.

- (iii) Difficulties encountered in the banks/finance institutions as they are refusing to release information in the mortgage/loan facilities granted so far .This they argued is due to security reasons.

Inspite of all these, efforts have been made within the limits of the informations gathered, data collected and oral interviews conducted to ensure the success of this project study.



CHAPTER TWO

2.0 HISTORICAL BACKGROUND

Niger State derived is named from the biggest and famous river in the country i.e. River Niger which bounded it in the western part. The state came into existence in February 1976 following the creation of more states by the then General Murtala Mohammed/Obasanjo Military regime. Created out of the defunct North Western State, it is a single political and administrative entity (existing first as a province and now a state) which has a relatively short history compared with the histories of the ethnic groups that inhabit it and the emirate and other areas that inhabit and make up its bulk. (Niger Community concord Oct., 19-25th 1987)

The state is made up of twenty five (25) Local Government Areas:-

Table showing the L. G. A. and the HQ.

Table 1

	L.G.A.	HEAD QUARTERS
1.	AGAIE	AGAIE
2.	AGWARA	AGAIE
3.	BIDA	BIDA
4.	BORGU	NEW BUSSA
5.	BOSSO	MAIKUNKELE
6.	CHANCHAGA	MINNA
7.	EDATI	ENAGI
8.	GBAKO	LEMU
9.	GURARA	GAWU – BABANGIDA
10.	KATCHA	KATCHA
11.	KONTAGORA	KONTAGORA
12.	LAPAI	LAPAI
13.	LAVUN	KUTIGI
14.	MAGAMA	NASKO

15.	MARIGA	BANGI
16.	MASHEGU	MASHEGU
17.	MOKWA	MOKWA
18.	MUNYA	SARKIN PAWA
19.	PAIKORO	PAIKO
20.	RAFI	KAGARA
21.	RIJAU	RIJAU
22.	SHIRORO	KUTA
23.	SULEJA	SULEJA
24.	TAFA	WUSE
25.	WUSHISHI	WUSHISHI

The state capital is Minna which is also the headquarters of Chanchaga Local Government Area. All Local Government Areas have their activities controlled and co-ordinated by various ministries and parastatals.

2.0.1 LOCATION, LAND AND CLIMATE OF THE STUDY AREAS

Niger State is situated between 3⁰. 20' and 7⁰. 40' East and Longitude 8⁰.00' and 11⁰.30' North and thus it falls within the middle belt region of Nigeria. It has an area of about 74,244 square kilometres which is approximately eight percent (8%) of the total land area of the country. (Niger State, the New World of Investment P.8). It is bounded by Kwara in the South with river Niger sperating them, in the South-East by Federal Capital Territory Abuja to the North East by Sokoto and in the North by Kaduna State. The centre of the new Federal Capital is less than 30Km from Suleja. Its proximity can have impact on the state in terms of general economic prospects and market for industrial products. Indeed there has already been a considerable impact on Suleja with major new housing scheme being constructed. (The zuma rock housing estate)

The state has two distinct seasons with rainy seasons beginning around April and ending in November which also marks the beginning of dry season which lapse around March. The main

annual rainfall varies from about 1100mm in the North to more than 1600mm in the South-Eastern part of the state.

2.0.2 POPULATION AND PEOPLE

Niger State has an estimated population of about 2,269,363 and a density of about 30 people per square Kilometer spread over towns and villages. Although Hausa Language is widely spoken in most part of the state, the major indigenous tribes are NUPE, GWARI, KAMBARI KAMMUKU, DUKKAWA, FULANI, KORO, KADARA and BASSA.

There is also a considerable immigration of people from other states (both North and South) especially in the Urban areas. Such areas include Minna, Bida, Kontoppra, Suleja, and other towns such as Lapai, Agaie, Kutigi, Mokwa, Paiko, Rijau, Kuta, Jebba, Zungeru which are the major and sub-towns in the state. Majority of indigene of the state live in rural areas.

2.0.3 COMMUNICATION –TRANSPORTATION

2.0.3.1 Telecommunication and Postal Services:- Automatic Telephone exchange connecting the state with other part of the Federation is functioning. The mobile telephone system services is operational in the capital and these make communication easy. The NIPOST is also putting its best service while private postal agencies are available all over the state.

2.0.3.2 Rail:- The railway line connecting Northern state with the sea-port in Lagos and other ports of Southern State passes through Minna. The rail line provide one of the most important means of carrying goods and services to and from the state

2.0.3.3 Roads:- The road network can be categorised into two. One is the federal or Trunk road system that linked the state with other parts of the federation. The second category comprises feeder roads connecting towns and villages in the state. Some of these roads are now under construction and rehabilitation.

2.0.3.4 Air Transport:- The state was some years back enjoying air transport facilities. The air lines that operate then were the OKADA AIRLINE and the SKYPOWER AIRLINE. Their operation was on the abandoned airstrip now turned I. B. B. Playing ground. A modern airport was constructed in 1993 although it yet to be fully functional as some navigational facilities are not in place. It is hoped that when it is completed at least the movement of people in and out of the state will be eased.

2.0.4 COMMERCE

On the field of commerce, Niger State is not left out. Commercial activities abound all over the state. In Minna, the State Capital the bustling commercial life of the people is a living testimony. Government attaches importance to commercial activities hence the construction of Minna, Suleja, Bida, Kontagora, Agiea Lapia, Kutigi and Kagara Modern Markets, the establishment of a trade fair complex and most recently that of a Minna Technology incubation centre.

In complimenting the commercial life of the state the Commercial Banks are there improving the life of business. At the moment there are eight (8) Commercial Banks, two (2) Development Banks and a Central Bank fully operational in the state capital.

2.0.5 EDUCATION

In the field of education the state has various institutions differently located in Minna alone there is the Federal University of Technology, College of Education, School of Midwifery, Federal Government College and many other state Post Primary, primary as well as Nursery schools.

2.0.6 INDUSTRY

In respect of medium and large scale industry, Niger State is one of the least developed states of Nigeria. Different regions of a country, by virtue of differences in natural resources, location and a host of other factors have different optimum roles to play in the national economy.

In many highly developed countries there are areas devoted almost exclusively to agriculture, and it might be argued that this should be the main function of Niger State and that it should not make special effort to industrialise. Blessed with Human and National resources, the state is backward in terms of industrial development. There are only small scale industries existing and these are in nature of.

(1) Agro-Based Industries

- (i) Bakeries
- (ii) Conmmills
- (iii) Rice Mills
- (iv) Abbattoris

(2) Mineral Based Industries

- (I) Bront Bricks
- (ii) Cement Block Making
- (iii) Marble Quarry
- (iv) Ceramic Production

(3) Service Industries

- (i) Shoe Making
- (ii) Uphostery
- (iii) Tailoring
- (iv) Printers
- (v) Radio/T.V Repairs
- (vi) Laundry & Dry Cleaning
- (vii) Ware Housing

(4) Forest Based Industries

- (I) Sawmills
- (ii) Funiture Factories
- (iii) Carpentry

In 1984, the then military Government orgained and launched a campaign on the industrialization of the state which brought about the establishment of six (6) large industrial projects in operation while about sixteen (16) were at various stages of construction.

The then operational ones were:-

- (i) Minna Mona Juice
- (ii) Minna wire product industry
- (iii) Chanchaga clay product

- (iv) Niger paramount Ltd.
- (v) Minna Pharmaceutical & Surgical Industry
- (vi) Mustpha Pharmaceutical company Now (Dana Pharmaceutical Company).

The one then on the pipeline were:-

- (i) Niger Agro Industries Ltd (Flour feed baby foods vegetable)
 - (ii) M. K. I. Enterprises (Vegetable oil)
 - (iii) Adoko Nigeria Ltd (Marble & Terrazzo)
 - (iv) Century products (Caustic Sada)
 - (v) International Fibres Ltd (Spiring Products)
 - (vi) Inter can Ltd (Fruit Juice)
 - (vii) Rolisco Nig. Ltd (Toilet Roll & Napkins)
 - (viii) Zamfara Bottling Co. Ltd (Soft Drinks)
 - (ix) Zaguru Nig Ltd (Vegetable oil)
 - (x) Niger Bottling Co. Ltd (Soft Drink)
 - (xi) Nov Chem Industry Ltd (Powder Dtergent)
 - (xii) Shehu Nig Ltd (Feed Mills)
 - (xiii) A. Aminu & Sons Ltd (Wire & Nails)
 - (xiv) Ivory Paper Mills Ltd (Paper)
 - (xv) New project Nig Ltd (Aluminum Fabrication)
 - (xvi) Progress Flour Mills Ltd (Flour & Feed)
- (Surveys (Oral Interview) March 2000)

The Government then assured that its policy shall be continued encouragement and motivation of private investment in the state. That a review of the existing laws would be undertaken to guide the commercial and industrial practices those that constitute an impediment or act as a great disincentive to investors would be amended .(Weekly Newslines Newspaper 10/1/88 -P.2.

The problems and prospects of industrial development cannot be analysed outside its social, economic and geo-political environment. But because of the wide scope and the need for a realistic approach, most analyst usually focus on selected elements within this environment.

After having gone through most initial problems faced in the development of industry which ranges from supply of land, non payment of compensation for the acquired site to non provision of basic infrastructures which facilitates the process of industrialization by relieving industrialist of part of the very heavy capital expenditure on getting their business to a start. Some of these functional industries collapsed while most of the ones in the pipeline could not be completed. Many factors are responsible for this thus:-

- (i) The state of the nations economy then was not buoyant, Nigeria at that time was coming out of her shelve of economic advancement..
- (ii) Government fiscal policies (The structural adjustment programme) then affected most industrialists .
- (iii) Lack of ready market for their finished product is and around the locality e.g. Mona Juice products were marketed only in Kano.
- (iv) Lack of proper project planning as the level of Nigeria's technological know – how has been very low, and this has descended to the rural areas of which Minna is inclusive.

2.1 INDUSTRIAL POTENTIALITIES OF NIGER STATE

Even in a region with agriculture as the major sector of the economy there is still the need to diversify and industrialise, so that the basic needs of the people can be produced locally. Industries produce needed employment opportunities and provide a source of revenue to the government. The development of an efficient service industry is particularly important for the maintenance of machines and equipments used in the other productive sectors of the economy

The present low position of the state in the industrial league table is largely circumstantial. It is endowed with light industrial potentialities in the following areas:-

2.1.1 **LOCATION:**-In view of its relatively central location in the geo-political structure of Nigeria, Niger State could effectively be used as a location based by industries producing consumer goods for national markets. Finished products could be easily transported to Southern and Northern Market via railways and the national road network. There is also the added advantage that industrial investors located in Niger State would be quick close to the New Federal Capital. Nearness to decision makers is considered to be a vital advantage in resolving industrial location problems. Another important locational advantage of the state is its proximity to the nations largest hydro power projects. According to Data obtained from NEPA. The following projects are located within the state:-

1. Kainji Hydro Electric Plant
2. Jebba Hydro Electric Plant
3. Shiroro Hydro Electric Plant
4. Zungeru Hydro Electric Plant
4. Gurara Hydro Electric Plant

The feasibility for the last two above have been awarded. (Facts Obtained From N. E. P. A. – March 2000).

It is in the light of the above Hydro Electric generation potentials that Niger State is nationally referred to as the POWER STATE.

2.1.2 AGRICULTURAL LAND RESOURCES

The availability of vast land resources with low population density gives Niger State the great potential for large scale production of industrial raw materials. Land resources surveys of extensive parts of it shows that the Niger River flood plains from Jebba to Baro and Lokoja has great potentials for irrigated production of such crops as Rice, Maize and Sugar cane (Facts Obtained from State Min of Agric Minna March, 2000)

Local knowledge of the present land use of the flood plains also indicates production of plantain and Banana and also some raw materials e.g The Nigerian Grains Production company has a large scale maize farm at MOKWA to supply raw material for its flour mills at Kaduna.

Also the Sunti sugar company is cultivating a wide range of agricultural land at IBBA in Mokwa Local Government Area for the supply of raw material to its sugar factory.

2.1.3 MINERAL RESOURCES

It would appear that the Federal Government has not given adequate attention to the important issue of intensive geological survey in Nigeria as to determine the location and estimate quantities of vital mineral resources. Geological survey is extremely important if we are to effectively exploit our mineral resources for industrial purposes. Unpublished information obtained from Federal Department of Geological Survey Kaduna indicates the existence of the following minerals in Niger State

- (i) Gold
- (ii) Limestone, Marble and Chalk
- (iii) Copper and Iron ore
- (iv) Phosphate
- (v) Feldspar
- (vi) Kaolin
- (vii) Quarts and Glass Sand

(Facts Obtained from Fed. Dept. of Geological Survey Kaduna - March 2000).

Further geological explorations are required to assess the commercial significance of these deposits. Industries that could be based on some of these mineral resources include:-

- (i) Manufacture of sanitary wares for which there is huge and growing market in Nigeria, in view of the massive growth of the construction industry.
- (ii) Manufacture of Bricks Tiles and Pottery
- (iii) Manufacture of Glass and Glass Products.

- (iv) Cement Production and other Building Materials
- (v) Production of Chalk for use in Schools and Colleges. With the massive expansion of education and introduction of the universal Basic Education (UBE) in Nigeria, there is almost insatiable demand for chalk
- (vi) Gold mining and related activities.

From the foregoing Niger State has great potentials for industrial development.

2.2 THE STATE GOVERNMENT INDUSTRIAL POLICY, OBJECTIVES AND MAINCEBTIVES

The need to industrialize and build a dynamic and self reliant economy has prompted the formulation of industrial policies and objectives for the development of the industrial sector of our economy. And in order to give the necessary impetus to the development of the industrial sector a substantial investment has been incorporated in to the current and future development plans.

2.2.1 POLICIES

- (a) The government has an open door policy towards industries and will encourage private enterprise both foreign and indigenous in all industrial sectors and these factors will contribute to a favourable industrial climate.
- (b) The provision of financial assistance in the initiation and financing of our industry either by way of loan or direct investment by the government where sufficient private capital is not available. But the aim here is to supplement private enterprise and not to displace it.
- (c) Foreign investors will be welcomed and full Co-operation assured . Within the frame work of the federal policy on repatriation of profits, income and capital, every assistance will be made available to foreign investors.
- (d) The state welcomes constructive suggestions and shall take steps to strengthen the competitive position of a firm in the state.
- (e) Small and medium size industries are in the cornerstone of the government industrial objectives and will be encourage (Niger State, The New World of Investment P.22)

2.2.2 OBJECTIVES

- (1) Rapid industrialization of the state. The first objective of the state industrial policy is to ensure the rapid industrialization of the state through the following strategies:-
 - (i) Intensification of Business Education
 - (ii) Encouragement of Joint Industrial Ventures
 - (iii) Establishment of a body to provide and maintain well serviced industrial estate.
 - (iv) Reforming industrial and commercial land allocation policy
 - (v) Setting up a Two (2) Years deadline for developing an allocation industrial plot.
 - (vi) Improvement of Transport and Communication Systems
 - (vii) Intensification of Liaison with investment institution and Commercial Banks.
 - (viii) Provision of Incentives
- (2) Self reliance through maximization of the use of local raw materials. This could be achieved by the increase production of agricultural raw materials and according priority to Agro-related industries.
- (3) Employment opportunities through encouraging the labour intensive industries and diversification of sources of employment.
- (4) Dispersal of industries. This could be achieved by deliberate location of industries at the sources of raw materials the creation of more growth centre to prevent Rural - Urban migration, conscious provision of necessary infrastructures in the Local Government Areas, e.g Roads, Water and Power Supply and the creation of three (3) industrial zones:-
 - (i) Zone 'A' Minna, Bida, Kontagora and Suleja.
 - (ii) Zones 'B' All other Local Government Headquarters.
 - (iii) Zone 'C' Other medium and small towns in the state.

(5) Generation of internal revenue. (Niger State World of Investment – P22-23).

2.2.3 INCENTIVES

In order to attract prospective investors, Niger State Government her designed a number of incentives to supplement Federal Government incentives. These include the following:-

- (i) Preparation of Industrial Estate in all the Local Government Head Quarters falling within industrial Zone 'A'
- (ii) Provision of Complete infrastructural facilities at the industrial Estate
e.g.
 - (a) Access and Internal Road Network with complete drainage system.
 - (b) Water and Electricity Supply
 - (c) Refuse disposal systems e.t.c.

(Niger State, The New World of Investment P.22-23)

2.3 TRENDS IN THE DEVELOPMENT OF INDUSTRIAL ESTATE

The development of industrial Estate in Niger State was least known about before independence, and if known, the technology and resources available at that time could not have served for the purpose of establishing industrial Estate.

Nigeria at the time has to rely on her colonial market who were out to exploit our mineral wealth for their home industries. It was when we attained our independence in 1960 that these colonial masters started their homeward journey after realising that they were loosing yet another export market. Some forms of industrial activities became move intensified soon after the independence, and with the passage of time, it was slowly but taking new shapes.

With the creation of the state most light industries are incompatible in use and due to their intensities of operations have been zoned and allocated along Keteren Gwari Eastern Bye – Pass and Sabon Gari Area. These light industries are here under categorised into :-

- (a) Services Industries e. g. Tailors, Hairdressing Saloons, Radio/T.V Repairs, Laundry and Dry Cleaning.
- (b) Engineering Industries: These include metal fabrication, Black Smiths, Automobile Repairs, mechanic workshops, Bicycle/Motorcycle Repairs e.t.c.
- (c) Mineral based Industries: e.g Cement Block Industries, Burnt Bricks e.t.c.
- (d) Forest Based Industries: e.g. Sawmill Carpentry, Furniture e.t.c. and a host of others.

These type of industrial activities have tremendously increased over the past few years, and this has made it impracticably workable for all of them to be accommodated in one place. The Eastern Bye-Pass Light Industrial/Commercial Estate popularly known as M. T. P. 18 i.e Minna Township plan No 18 takes substantial number of these activities. Others have found them selves suitable accommodation along Keteren – Gwari Bosso and Paiko Roads. Others not accommodated there are located at various location within the town

It can therefore be seen that since the attainment of independence some thirty –Nine (39) and a half years ago, there has been some form of industrial activities. This assume a different dimension when the state was created in 1976 and with the coming of the military Administration in 1983, Minna witnessed the first and premier industrial estate at Sauka Kahuta Industrial Zone popularly referred to as MTP 54. In the last few years to this day, there has been an unprecedented increase in the development of small/medium scale industrial activities and the member of industries has risen higher, although a number of large industrial setup have collapse due to some problems to be analysed.

2.4. PROBLEMS OF INDUSTRIAL ESTATE DEVELOPMENT.

The development of industrial estate in Niger State has been deluded by many factors which include:-

2.4.1 SUPPLY OF LAND

The basis of human existence is delved on land because he derive his livelihood from it. Considering the supply of land resources, we could speak of it as being fixed i.e it is restricted to the sum total of land that is in physical existence but the supply of land for particular uses changes depending on circumstance. Land supply could be in terms of its physical existence such as site, forest, minerals etc. or in terms of its economic existence i.e the portion that could be put to use.

“The minds of many business men, politicians farmers, professional (Particularly the environmental discipline e.g Estate surveyor, planner Architects, land surveyors e.t.c.) other are all focused on land , and much of their time is spent in trying to use it to their best advantage, and this takes different dimensions among different people”. (Chartered surveyor professional Magazine 1965 P. 67).

The supply of land in Niger State is faced by some problems which might either be natural or man –made.

- (i) **THE NATUREAL PROBLEMS:-**The physical supply of land in and around Minna is faced by some natural problems which ranges from hills and mountains to valleys and plains. The common hills around include the Paida Hills Maitumbi and Bosso Hills ranges. The Gbangbapi Hill has seriously contribute in limiting the land space for development programmes within the Sauka Kahuta Industrial Area, making it necessary for the layout to be expanded to meet up with the new Minna – Kataregi – Bida Road.
- (ii) **MAN – MADE PROBLEMS:-**Apart from the natural problems bedeviling the development of industrial estate, there are also man –made problems. These are activities

of mining resulting from the use of heavy equipment and machinery, and the excavation of the earth surface for constructional use without backfilling appropriately. The effect of these activities are the earth moulds and deep paddocks flooded with water. These have made it impossible for development purposes to be effected on these areas.

2.4.2 ACQUISITION OF SITE AND THE PAYMENT OF COMPENSATION

With the promulgation of the land use decree, otherwise known as decree No 6 of 1978, section 1 Provides that “all land comprised in the territory of each state in the federation are hereby vested in the Governor of that state and such land shall be held in trust and administered for the use and common benefit of all Nigerians in accordance with the provisions of the decree”. (Land use decree of 1978 (Decree No 6 1978) section 1).

When a site is finally selected, the assessment of payable compensation follows. For quite sometimes government has been experiencing some hardship with the traditional landowners turned speculators. Of recent, the site acquired for the Sauka Kahute Industrial layout in Minna and that of the Federal University of Technology permanent site along Minna Kataeregi road have been matters of concern to the government due to the activities of these speculators. They go into buying large area of land after fully knowing governments intention to acquire the land through some officials thereby posing some difficulties to the government on acquiring the site. Compensation assessments were unduly inflated by these speculators and officials that carrying the exercise. In some cases, the farmers would refuse the acquisition of their farm land e.g The Farmer around Gbangabpi, Sauka Kahuta and Barikin sale villages refuse the acquisition for the industrial estate site at Sauka Kahuta due to the fact that another portion of their farmland were earlier acquired for the purpose of citing the 1 mechanised infantry Brigade Army Range in Minna on which compensation was partly paid after a long period of appeal. The then Military Governor later threatened to remove the district head of Sauka Kahuta should his subject refuse the acquisition of industrial site. Government also made it clear that “any community that refuse land for a project will loose that project for another community” (Weekly News line Newspaper of 4/5/86 – P.1).

2.4.3 SKILLED LABOUR:-Labour is the most important input of any business hence it is being viewed by the economist as “one of the factors of production, the most important part of the country’s resource is the actual and potential working population. (economics of land use planning by W. Lean – P. 16).

A nation’s labour force falls into the following categories, namely unskilled semi skilled and the skilled labour. These categories of labour are employed in the development of industrial estate in Niger State. The problem of industrial estate is shortage of skilled labour (Professionally qualified and experienced) in the various discipline, and this hinders the development of the state industrially, though there is presently very high rate of unemployment, still there is a scarcity of highly skilled personnel. For instance, a new industry to be sited in Niger State would be faced with the problem of highly experienced and qualified personnel, because a person working in Kaduna, Lagos or Kano with about 25 years experience and on salary of say N 120,000 P.A. is not likely to move to Minna and join a new organisation for even N 130,000 P. a High skilled labour therefore poses some difficulties in development of industries in Niger State. In some cases government has to engage professional consultants for professional contract jobs.

2.4.4 ADMINISTRATIVE

An effective management coupled with good administration will bring about the desired goals of a business venture, because this is the machinery of the whole system. There are however, some administrative problems where there will be problem of who should do this or that. A clear case is the tussle for the preparation of sketch plan between the town planning and survey divisions of the state ministry of lands & survey. Also we have the duplication of schedules between the town planning division and the state urban development board. The former tussle was resolved and hence the creation and development of industrial estate (Sauka Kahuta Industrial Estate) though the mere creation do not itself promote industrial growth or achieve effective spatial industrial diversification, this is because the economic trend in Nigeria encourages any prospective investor to take into serious consideration two major factors in the establishment of any industrial project i. e industrial project that can utilize local raw material

and industrial project that can undertake local production of raw materials for local industries (Niger State the New World of Investment P.22).

Establishment of industrial project with high import content will encounter problem because of the federal government policy on industrial development which emphasizes on industrial project that can utilize or produce local raw materials and the scarcity of foreign exchange available to finance the importation of raw material. A move towards a more positive policy must therefore start from recognition of certain simple proposition.

Other problems hindering industrial development in Niger State are as follows:-

- Lack of exploitable high value mineral resource available in the state.
- The structure of the largely agricultural economy is not yet organised so as to favour the growth of agro – industrial dependent or continuity of supply of large volumes of raw material.
- The absence of market potentials generated by major concentration of population which normally leads to some 'significant industrial activity even if it has to be based on imported raw material.
- Although infrastructural limitation are a constraint the root cause of the low industrial profile of Niger State has been the absence of a sufficiently powerful magnet to attract substantial entrepreneurial investment.

2.5 PROSPECT OF INDUSTRIAL ESTATE DEVELOPMENT

For any venture to be embarked upon, be it the desire to establish a housing estate, an industrial project or anything at all, there must have been some motivation factors that have formed the basis of that venture. It is at the background of this that a look at the prospects so derived from the whole venture of industrial estate development in Niger State with special reference to Minna under the following heading:-

2.5.1 DEVELOPMENT PROSPECT

Development is defined as “ any material change that is brought about on the earth’s surface through building, mining and engineering works or form of operations in, on under e.t.c. and making any alteration or change in the use of a building land”. (British town and Country planning land. Act. 1947,). The material change brought about is for betterment of the physical appearance as well as the quantitative of outlook of the environment and a general upliftment of the status quo of the area in general. Through development, many changes have been brought about in the immediate vicinity such as physical features e. g structures, roads e.t.c. From all indications however there is a growing prospect for the development of industrial estate since the problem faced by industrialist was the industrial site. Since development is said to mean changes brought about on the land surface, this subject cannot be treated in isolation of the most common aspects of development which is examined below:-

- (a) **TRANSPORT:-** It can be seen as in the appendix map No.5 that all sites on their individualities have been served effectively with access roads. This will enhance the movement of both raw materials and finished product to and from the industries. With efficient transport facilities the products will get to the consumers easily, and there will be a high market for these products should they (Products) arrive in the market early.

- (b) **SERVICES:** The efficiency of any services will go a long way in determining the impact of that service on the economy of the environment. The services of the national electric power authority can not be over-emphasized in this crucial time of industrial development. However, the entire industrial estate has been fully served by electricity, although some items have been vandalised. Other basic services that have since gone there are fire service protection, water supply e.t.c.

- (c) **COMMUNICATION** For any business to succeed, there must be an efficient communication link between the rank and files within that organisation and outside world so as to effectively achieve the desired goals and objectives of the business venture. It is in the light of these that the importance of the services of the post and telecommunications can not be over –

conphasized. With the expansion and upgrading of the Minna general post office, availability of digital and mobile telephone services, the communication needs of industrialist will be met. Mails will be delivered on time and there will be a marked improvement in the communication system.

(d) AMENITIES :- The general amenities that have come to be established as a result of the industrial estate development include, Housing, Public Transport, Fire service, Hotels and recreation. These amenities sprang up with the development of the industries in the estate . Many more are finding their feet around the zone. The effective public and private transport facilities have yet increased the level of the industrial development by way of encouraging individual to take up appointment with the industries. The western -bye-pass which is the main road leading to the estate provides efficient routes being plied by both private and public transport system.

(e) BASIC INFRASTRUCTURES:-The provision of basic infrastructures in any society forms the bedrock of the economic provisions of any good government. The citizens of this country as of right, are entitled to the provision of these basic infrastructures such as health services, good schools, water supply, good transport system e.t.c.

With the development of industrial estates, these facilities have come to form part of the development in the area e.g. Sauka Kahuta new primary school build by chanchaga local gov't education department, the new Tunga day secondary school, by the state secondary school board, the Tudun wada police station and the recently commissioned pubic health centre at Barikin sale all to serve the industrial zone. All the aforementioned development programmes have been developed systematically and according to the development programmes planned for each. Many more development project are in the pipeline when fully executed will put the state in a better and more sound industrial footing. Some project within the state that have taken off are due to be completed in not too distant future . These projects are federal, state government and individual initiated and they include higher institutions of learning.

As its own part towards the development of the state industrially. Elaborate plans have been made by the government to encourage the development of industries. This was clearly specified by the Governor of the state when he assumed office in May, 1999 and he said among other things and I quote "In our development desire this administration will not fall into temptation of erecting gigantic structures or white elephants. The emphasis will be on profit oriented and labour intensive industries which will reduce unemployment on the one hand and bring about much needed revenue to the government". (Niger state News. Newsletter by Directorate of information Niger state P. 3 June 1999). In addition "Government will encourage investors through reviewing the state industrial policy and incentives so as to remove what ever impediment". (Niger state News P. 4 -June 1999).

Because of the development of potentials that exist in the industrial estate, industries that have been attracted also came with their attendant prospect. Residents who were hitherto found at the periphery of the towns are now in the heart of the fast growing Sauka Kahuta village. Mini residential houses are being constructed daily. There is generally an increase in the economic way of life among the people. More people are now salary earners, others businesses are expanding fast. There is also general trend of buoyant economic activity in the area.

2.5.2 EMPLOYMENT PROSPECTS:-

Niger state has passed through various development periods ranging from the colonial times to the first civilian government into the military "back to the second republic, then another military into the third republic yet into another hopefully last military administration and now into a democratically elected government. All through these periods, it had not been easy because the masses have been finding it difficult to gain employment. The Nigerian railway corporation has been the main labour consumer because it has been in the state since the colonial era and it passes through many parts of the state. With the change of events as at today the tide has changed with construction industry. The bulk of the labour force had been the unskilled and semi-skilled labour. Very few skilled labour force was available and were in high demand. With the coming of industries in the state as a result of the industrial development potentials,

many people now find their employment in these industries. Chiefly among the industries that have helped in offering employment opportunities to many people include:-

Table VI showing industries and employment rates

	INDUSTRIES	NO OF EMPLOYEES
(a)	Chanchaga Clay Products Ltd	1,300 People
(b)	Tomizaye wire & Nail industry Ltd	150 People
(c)	Dana Pharmaceutical Co. Ltd	1,200 People
(d)	Minna Pharmaceutical Co. Ltd	1,450 People
(e)	Abu Turab Poultry & Feed mills Ltd	150 People
(f)	El-Amin Confectionary Ltd	75 People
(g)	Nigeria Bottling Co. Ltd	1,250 People

(Surveys /Questionnaires – March 2000).

There is a high prospect for the labour industry in the development of industrial estate in Niger State. There is abundance of labour in the rural areas where the industrial estate have to be developed . There is still a brighter prospect for the labour industry in the development of industrial estates especially when the sites being acquired have been fully developed and industries attracted to come and establish there. Most of those that have been allocated along the Chanchaga Paiko road layout are yet to commence construction and by the time they would have gone into production, more people would be given employment opportunities. Highly skilled category of labour will be taken care of as demand for their services increases daily. Such professionals include Maintenance Engineers, Estate Surveyors & Valuers, Accountants Electrical and Mechanical Engineers e.t.c.

2.5.3 ECONOMIC PROSPECTS

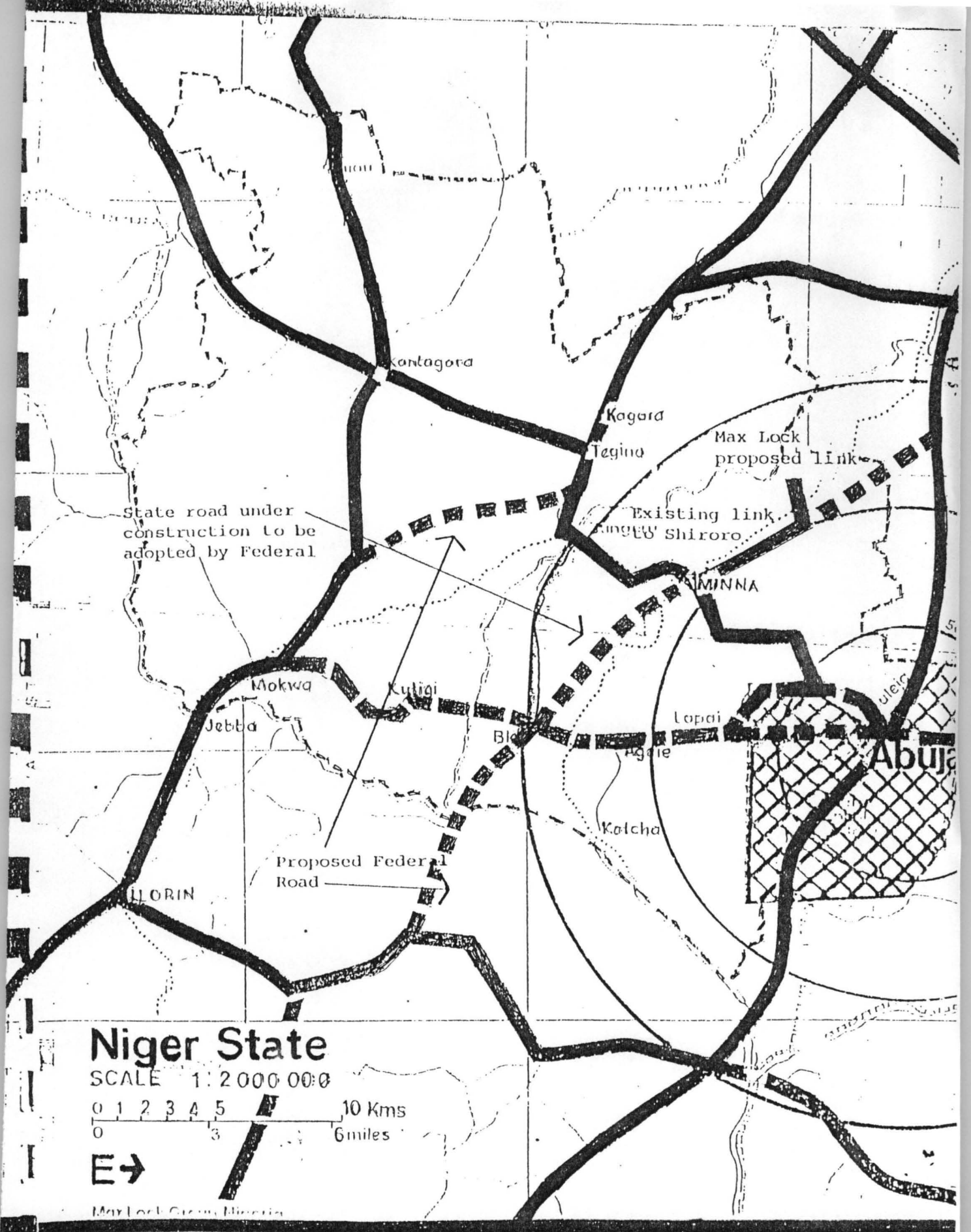
In this context, it is considered that economic development serves the sole purpose which involve a system of organising space in such a way as to minimize the ease of distributing goods and services between consumers by the means of devices that minimize cost of production and raises the level of satisfaction to producers and consumers alike. In the network of activities that

achieve this end there must be efficient transportation routes, communication means, free flow of goods and services, attractive incentives to the business, non interference by government into the system e.t.c. are all pre requisites. The more advance therefore, is the economic system, the more complex becomes the whole system.

Government has foreseen the importance and increasing prospects that abound in the development of industrial estate that it's now doing all in its power to encourage the programme in all its ramifications. Both the state and federal government through their various agents (Ministries of trade & Industry, Federal & State, Investment company Ltd.– States; Nigerian Industrial Development Bank; Nigerian Bank for Commerce & Industry e.t.c.) have been actively involved in these aspects of development. Government has realised that in executing her programmes in isolation and caring less for her citizens welfare, the programme being planned will be meaning less. It is in realization of this that the state Government launched an industrial development appeal fund in 1985 and has continued to exploit all avenues in a bid to achieve the desired goals of providing the masses with basic infrastructures and all the necessities of life.

However, there is growing market for the products manufactured by the exiting industries in the state. The Chanchaga clay products is presently recording a very high demand for its products (Burnt Bricks). This is due to the state government policy of undertaking some of its projects with burnt bricks e.g. The fencing of Minna township stadium, the construction of the Minna main market e.t.c. Given the state central location all other products are transported to urban consumers markets in various parts of the country.

Niger State after having a wealth of raw material as stated earlier also have a wealth of willing labour force with a ready ability to absorb training and ideas. Some industries within the state are interdependence for instance the Dana pharmaceutical company which produces "DRIP" life saving water by the use of unique packaging material consisting of polyethylene and P. V. C. The other items used are straws and is manufactured from polypropylene by another industry the Niger poly-product company limited.




Niger State

SCALE 1:2 000 000



Max Lock Cross Nigeria

Relationship to the New Federal Capital

 Federal Trunk Roads
Existing

CHAPTER THREE

3.0 LITERATURE REVIEW

The problems and prospects of industrial development can not be fully analysed outside its social, economic and geo – political environment. But because of the wide scope and the need for a realistic approach, most writers usually focus on selected elements within its environment. Schatz's article "The industrial environment" focuses mainly on the economic environment, emphasizing the absence of the right type of economic milieu as the major obstacles to rapid industrial development in Nigeria. Skilled manpower bottlenecks, inadequate and unreliable infrastructure, narrow markets and limited demand for products and problems securing basic and ancillary capital equipment and raw material are among the factors in the economic environment identified by Schatz.

Akeredolu – Ale (1971) in his book "Industrialization in Nigeria", concentrates on the influence of certain extra – individual and extra – personal factors on the performance of indigenous entrepreneurs, in Nigeria. Both expatriate competition and the image of the indigenous entrepreneurial class itself are seen to pose serious problems for indigenous business performance, but by far more important a source of bad organisation. The economic environment is also sometimes used to explain the very timing of industrialization. As shown by Prof. Jerry Gana in his paper "Geo – potentials for industrialization in Niger State", this is a rather partial analysis. Essentially the distinction drawn is between necessary and sufficient conditions for rapid industrialization. He contends that the market in Niger State, Government Policy Goals and Politics are not isolated forces but related factors in the industrial development of the state. His paper carries further the discussion of the importance of non – economic elements of the environment. By examining the role played by political factors in the industrial development of the state. He reveals the conflict and confusion over the question of public enterprises in the state and the lack of any solid ideological base for policy on the issue. Alh. Rafai Mohammed, in his paper "Government Industrial Policies and strategies" drew a conclusion that the wisest thing for Government to do may be to allow indigenous private enterprise to develop freely and on its own while development resources are devoted to directly productive activities.

The General Manager Niger State Development Company in his paper. shows the major efforts of the Government in moving away from almost complete reliance on private initiative and entrepreneurial effort in industrialization to substantial direct participation both through joint ventures and public enterprises. He said whether or not the bulk of the development resources available to the Government is devoted to directly productive activities rather than to business aid programmes, there will still be need for the Government to influence the performance of the industrial sector. He presented a record of the attempts made by the Government in this regard through the use of direct controls. As he concludes, such attempts have so far been too little and often not very successful.

3.1 AGENTS OF INDUSTRIAL DEVELOPMENT

Industrialization, and indeed wise use of natural resources for the common goods of every citizen has become the objectives of many Governments in Nigeria in recent years. As a developing nation the Federal Government has an open door policy for the tapping of our gifted resources. All this is being embarked upon by both Government and individuals in an attempts to achieve the much needed industrial self reliance. It is at the back ground of the foregoing that the Federal Government embarked upon the Multi –Million Naira steel project at Aladja, Ajaokuta, Jos, Oshogbo and Katsina.

The Niger State Government however has not been left out as a Government entity in the rat race of attaining the industrial self – reliance. It has taken so many far reaching steps to see that all hands are on deck so as to really bring it to pass. Some of these steps and measures taken by the Government of the state will be examined later in the sub section.

3.2 THE ROLE OF GOVERNMENT AGENCIES

The Niger State Government took steps so as to encourage the development of industrial Estate after setting out its policies and objectives. The first and foremost among the steps is the provision of land which is further examined below:-

3.2.1 THE DEPARTMENT OF LAND AND SURVEYS

The department of lands and survey is presently part of the state ministry of lands surveys & town planing and is solely responsible for the provision of land for all development in the state. The state Government in exercising its power of compulsory acquisition i.e (Power of Eminent Domain) used its organ the development of lands and surveys to acquire land from private individuals. The acquiring authority makes all arrangements to assess the unexhausted improvement within the acquired area for compensation. In a bid to encourage the development of industrial Estate in the state, the Government has acquired various sites for industrial purpose among these are:-

- (i) Sauka Kahuta Industrial Estate i.e M. T. P 54
- (ii) Bosso Light Industrial/ Commercial Layout i.e M. T. P.40
- (iii) Eastern Bye – Pass Light Industrial /Commercial Layout i.e M. T. P 18

When the site were formally acquired by the authority physical survey and boundary demarcation is undertaken by the survey division of the ministry.

“The administration of land as provided in the land use decree of 29th day of March 1978, shall be in the control and management of the state Governor who shall hold it in trust and administer it for the use and common benefit of all and also the Local Government shall hold and administer land situated within its area of Jurisdiction . The Governor has been empowered to appoint statutory bodies to oversee the day to day administration of the land in the state. These bodies are:-

- (i) The land use and allocation committee
- (ii) The land allocation Advisory committee

These bodies shall take charge of urban – rural lands respectively”. (L. U.D 1978 Part 1 Section 1-5).

As a preliminary stage or step towards one securing an industrial or other type of plot. The following steps have to be taken by any individual prospective industrial developer:-

- (i) Obtain and fill the appropriate forms known as “LAND FORM 1” in duplicate on payment of a non – refundable fees N 200 (Data Obtained from the Ministry – March 2000).
- (ii) Affix self – passport photograph on each form properly filled for individual applicant. While Companies, Firms, Missions Charitable or Religious bodies will attach a Certificate of Incorporation/Registration.
- (iii) For individual and taxable organisation a photo – copy of three years tax clearance certificate to be attached.
- (iv) An appropriate deposit on application is to be paid. This deposit is fixed according to the purpose for which the land is required. e.g Residential Commercial, Industrial Agricultural e.t.c.

Where an area being applied for is not within the government approved designed layout, a site plan of the area is to be attached to the application.

The following rates and deposits are charged on different land uses in the state:-

Table II showing land charges

DEPOSITS FOR ALL PURPOSES

S/NO	PURPOSE	MINNA	SULEJA	OTHER L.G.A.
(i)	RESIDENTIAL	600	2,500	500
(ii)	COMMERCIAL	1,500	5,000	1,000
(iii)	INDUSTRIAL	3,000	10,000	3,000
(iv)	PETROL FILLING STATION	3,000	5,000	2,000
(v)	PRIVATE SCHOOL	1,500	3,000	800

(vi)	FARM LANDS	500	3,000	500
(vii)	LIVESTOCK	500	1,000	500
(viii)	GRAZING	500	1,000	500
(ix)	QUARR SITE	25,000	30,000	25,000
(x)	PRIVATE HOSPITAL	1,500	3,000	1,000

The ground rent payment for every right of occupancy granted is charged annually and based on hectare.

The annual ground rent chargeable currently is as follows:-

Table III showing land charges

GROUND RENT FOR ALL PURPOSE PER/HECTAR PER ANNUAL

	PURPOSE	MINNA	SULEJA	OTHER L.G.A
(i)	RESIDENTIAL			
	LOW DEASITY	4,000	5,000	3,000
	MEDIUM	3,000	4,000	2,000
	HIGH	2,000	3,000	1,000
(ii)	COMMERCIAL	10,000	15,000	5,000
(iii)	INSDUTRIAL			
	LIGHT	20,000	30,000	10,000
	HEAVY	30,000	40,000	15,000
(iv)	PETROL FILLING STATION	20,000	25,000	10,000
(v)	PRIVATE SCHOOL	2000	3,000	2,000
(vi)	PRIVATE CLINIC	3000	4,000	2,000
(vii)	AGRICULTURE	200	500	500

Payment of round rent is expected from all tittle holder at the beginning of every year without demand, failure of which attracts a penal rent of 10%.

3.2.2 THE TOWN PLANNING DIVISION

This department is also part of the state ministry of lands, survey and town planning. As its name implied it is charged with the physical planning of the state. This include controlling development as well as other physical land policies aimed at the utilization of land resources in the wisest way. It ensures that all development within the industrial and other zones conforms with the master plan which zoned the land use pattern. It design Government approved layouts and further advise on the necessary infrastructures and facilities needed in the development areas. It also designed and demarcate urban from urban rural area for Governments declaration.

3.2.3. THE SURVEY DIVISION

This is another department within the same ministry as above. Its main function is in carrying out surveys/measurements of sites boundaries and plot for proper demarcation and identification.

3.2.4. THE NIGER STATE HOUSING CORPORATION

The state housing corporation was established on 1st day of October, 1979. It is charged with the responsibility of increasing the availability of dwelling houses for acquisition by member of the public. In an efforts to solving the increasing demand for its services, particularly around the industrial area Sauka Kahuta M. T. P. 54. The state housing corporation is intending to construct an industrial housing estate in an adjacent residential layout i.e. M. T. P. 47. In addition, as an agent of property development, the corporation seek for contract work for the construction of any industrial ventures in the state. (Data Obtained from Housing Corporation March 2000).

3.2.5 NIGER STATE DEVELOPMENT COMPANY

This is a state government owned company charged with the responsibility of carrying out investment projects on behalf of the government. It undertakes feasibility and viability studies of projects and liases with individual or group and their foreign counterparts willing to invest in any viable project.

The company buys shares in these projects on behalf of the government and later sell same to the general public. It also give technical advise to industrialists. The company has joint shares in the following industrial:-

- (i) Chanchaga Clay Product
- (ii) Niger Mona Juice Company
- (iii) Niger Sacks Company
- (iv) Dana Pharmaceutical Company.

(Fact Obtained Through Oral Interviews March 2000).

3.2.6 MINISTRY OF TRADE AND INDUSTRIAL

The industrial section of this ministry is responsible for granting of small scale scheme loans as well as advising small scale industrialists on how best to succeed in the business being undertaken. For one to qualify for a loan he has to satisfy the following laid conditions this:-

- (i) He must be a resident of the state
- (ii) He must submit a correctly completed application forms, accompanied with a photo-copy of the receipt.

The application must be baked by the followings:-

- (a) Incorporation certificate of a limited liability company for a loan application of above N150,000.00.
 - (i) A business name registration certificate will be required for application below N150,000.00
- (b) A bankable feasibility study report for application above N150,000.00
- (i) A business plan will be required for all application below N500,000.00:-
- (c) Substantial evidence of the applicants ability to contribute 20% of the cost of project in tangible assets (excluding land).

- (d) Guarantor :- The loan application must be guaranteed, preferably by a highly placed Nigerlite from the applicants Local Government area who has sufficient landed asset, that could cover the amount being borrowed.

Since the inception of the scheme in 1976, there has been about seven hundred applications received and by the 27th day of March 2000 the position of the scheme is as follows:-

Table IV showing loan applicants

S/NO	NO OF BENEFICIARIES	COMMENTS
1.	235	Loans liquidated
2.	15	Absconded beneficiaries
3.	5	Deceased beneficiaries
4.	12	Collapsed industries
5.	24	Revoked loans
6.	30	Newly approved loans
7.	375	Successful enterprises
Total	696	

(Facts obtained from the small-scale industries credit scheme section Niger State Ministry of Trade and Industries Minna March 2000.)

3.2.7 WATER AND SANITATION BOARD

The Niger State water and sanitation board charged with the responsibility of supplying clean and portable water in the whole state for both domestic and industrial use. The water needs of Minna the state capital far outpaces the other areas of the state. This is because of the ever increasing economic activities that take place in the state capital. These activities include the increase in the demand for housing accommodation, office space and so on. Among the water consumers are heavy industries such as:

Table V showing water consumption by industries

	INDUSTRIES	DAILY WATER NEED
1.	Chanchaga Clay Product	2.75m Litres
2.	Niger Paramourt Foods Ltd	1.50m Litres
3.	Niger Poly –Products Ltd	0.50m
4.	Abu Turab Poultry/Feed mills	1.50m Litres
5.	Minna Phamaceutical Co. Ltd	2.50m Litres
6.	Dana Phamaceutical Co. Ltd	2.50m Litres
7.	Tonuzaye Wire Product Ltd	0.75m Litres
8.	Morris Fertilizer Co. Ltd	2.50m Liters

(Facts Obtained form Water Board March 2000)

3.2.8. THE NIGERIAN RAILWAY CORPORATION

Transportation by railway has been going for decades and has been Nigeria's pride for bulk transportation followed by road transport. Both finished products and raw materials are transported through the railways. It is in the light of meeting up with the standard of a well serviced industrial estate that the state government made negotiation with the Nigerian railways for the extension of rail line to the Sauka Kahuta industrial layout i.e. M. T. P.54.

3.3 THE ROLE OF FINANCIAL INSTITUTIONS.

Finance is a very important tool for any business, it is referred to as the life blood of investment. The services rendered by finance institution can not be over emphasized. The stability of any economy solely depends on the economic environment. Thus, the availability of finance institutions and their readiness to grant loans has motivated many industrialists to come for loans. Among these finance institutions existing in Minna are the Commercial Banks e.g.

- (i) The First Bank of the Nig. Plc
- (ii) Union Bank of Nig. Plc
- (iii) United Bank for Africa Nig. Plc
- (iv) Bank of the North Plc
- (v) Savannah Bank Nig. Plc
- (vi) Habib Bank Nig. Plc
- (vii) Intercity Bank Nig. Plc

As motivators in the development of industries and other business ventures. They have some criteria for granting of loans. Some of these are:-

- (i) Good Account performance and adequate security cover.
- (ii) Availability of loanable funds and compliance with central bank of Nigeria's sectoral allocation of credit.
- (iii) Provision of a letter of undertaking and the economic viability of the project, worth of the directors and security offered for the facility e.t.c.

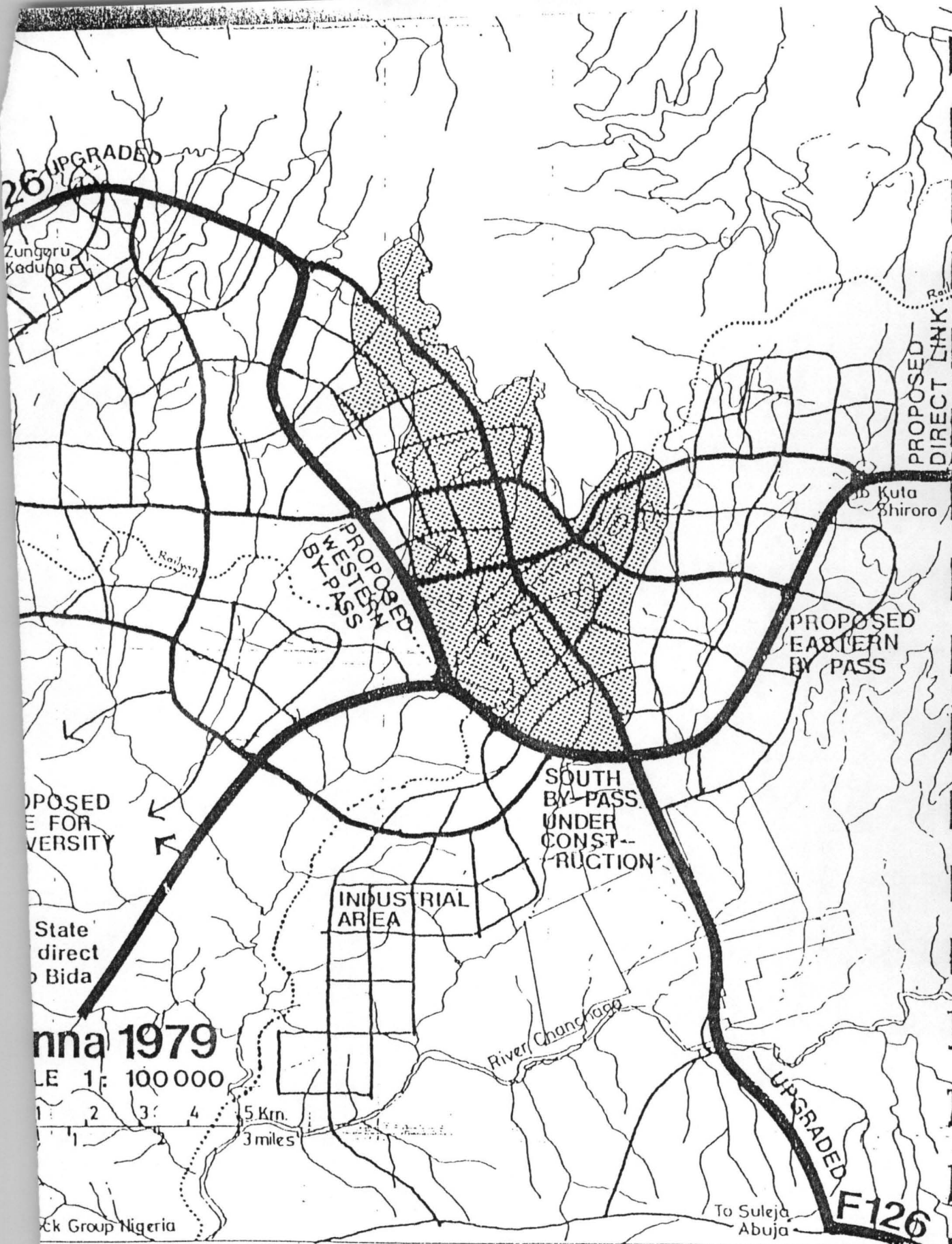
The rate chargeable by the commercial banks for industrial loans is as per central bank rediscount rate plus a prime rate which is between 1% - 3% and the maximum period allowable for the loan depends on the type of project.

A part from the commercial banks, there are many other financial institutions and it is possible to talk about only the important one. Some of these institutions carry out lending and investment functions while others serve simply as intermediaries with highly specialized roles.

(i) **THE NIGERIAN INDUSTRIAL DEVELOPMENT BANK**

This bank was established on the 22nd day of January 1964 through the takeover and reconstitution of the investment company of Nigeria Ltd. The bank was formed to provide medium and long term finance to local private enterprises in Nigeria. The emphasis is on local rather than indigenous. The minimum capital that the bank can lend to any prospective investor for a project is N250,000:00 which rules out financial assistance to small scale enterprises. Its assistance is also limited to industrial and mining sectors of the economy which means that

agriculture and commercial enterprises are not within the sphere of influence of the bank. Its scope extends to include financing of projects sponsored and controlled by government provided they are operated as independent enterprises on a commercial scale. Its assistance usually takes the form either direct subscriptions or underwriting or equity. Preference stock or debentures, and medium or long term loan to on going enterprises and investment. (Economic Survey of Nigeria, By S. O. Olayide P. 158 – 164).



Road Proposals in Minna Town.

- Proposed Major Trunk Roads
- Proposed Primary Road Network
- Proposed Distributor Road System
- Existing Built-Up Area.

CHAPTER FOUR

4.0 METHODOLOGY

The production of real estate resources is generally thought of in terms of the physical processes of land development, improvement and building. These physical processes notwithstanding, have significant privilege because they provide people as families and as members of business, governmental or even social groups or institutional organisation with real estate resources.

The developer of a large project such as an industrial firm or Housing Estate, is in effect a developer of a community. The manner in which the land is developed size of plots, street pattern, basic infrastructure, quality of development business and community facilities provided all have a direct bearing on the type of community or neighborhood that ultimately results.

An individual who wishes to embark upon project say, an industrial estate, will have to satisfy himself with the basic needs in the project execution. First and foremost is the determination or selection of type of industrial project. Is it a matches factory, cement factory, Brewery plant or what? He has to decide on what type of business venture before embarking upon it. He will have to appoint a firm of appraise who will look into it and come out with a feasibility and viability report.

In this case study, great effort is made to go down into the roots of the problems that are involved and which have militated against economic growth in this part of the country. Recommendations will be made on the prospect of industrial development which will result into the absorption of a large number of the unemployed, then reducing the unemployment rate, an upliftment of the standard of living of the common man, provision of basic infrastructure, decent residential accommodation and so on.

To dig into these issues, concerted efforts were made through the use of:

- (i) The Questionnaire
- (ii) Personal oral interviews.
- (iii) Field surveys and maps.

4.1 DATA COLLECTION

For reasonably and reliable information, this research work has depended on three principal methods of collecting data. They are mentioned above.

4.1.1 THE QUESTIONNAIRE.

In order to achieve the objectives of this research work, a survey was carried out using questionnaire and three groups of respondent were interviewed and there are:

- (i) The Utility Boards and Corporations.
- (ii) The Finance Institutions.
- (iii) The Industrialist.

4.1.2 THE PERSONAL ORAL INTERVIEWS.

Although the project work has a very limited time, a personal oral interview were conducted and the respondents were people from various spheres of life, ranging from civil servant, industrial worker to traders. Most questions asked are related to the problems faced in the development of industrial estate in the state, the reasons for the failure of the state to stand on a good industrial footing. Reason for the failure of some industrial ventures and performance of some existing ones within the study area.

4.1.3 FIELD SURVEYS, MAPS AND DOCUMENTARY SOURCE.

This is a secondary data. It includes written documents from offices and libraries about industrialization. Maps, master plans, Designed layout plans were collected from the state ministry of lands, survey and town planning with a view of getting information relating to the physical and human background of the study area.

4.2 DATA ANALYSIS.

For easy analysis of data, a three dimensional representation of statistical information has been drawn to assemble the data collected through the use of tables.

- Tables
- Line graph and
- The pie charts.

These were used where appropriate to give clearer picture of the whole findings.

4.2.1 THE UTILITY BOARDS / COPORATIONS.

The Boards / Corporation which are agents of industrial development and are existing within the study area are as shown in the table below:

Table VII showing some corporations in the state

S/NO	BOARDS / CORPORATIONS	DATES OF ESTABLISHMENT	FUNCTIONS
1.	Niger State Housing Corporation	1980	-Provision of Housing -Accommodation -infrastructures.
2.	Niger State Rural Electrification Board R.E.B	1982	-Provision of Power Supply
3.	Water and Sanitation Board N.S.W.S.B	1976	-Provision of portable water and sanitary services.
4.	Niger State Development Company N.S.D.C.	1981	-Buying shares on behalf of the government.

Source: Fact obtained through interview

These boards / corporations in tends to provide these services in the industrial zone of the state but they are faced with the problems of inadequate fund as they rely mostly on government allocation of subvention.

4.2.2 THE FINANCE INSTITUTIONS

The finance institutions provides funds for industrial development and as motivators in that aspect they have some set aside requirement/criteria for the granting of financial backing for any project. An applicant for a loan whether short or long term loan must satisfy the following condition.

- (i) The submission of a three years tax clearance certificate.

- (ii) Operating a good account performance and an adequate security cover for the facility.
- (iii) Availability of loanable fund and compliance with Central Banks of Nigeria's sectorial allocation of credit.
- (iv) Provision of a letter of undertaking stating the worth of the Directors of the company.
- (v) Submission of a detailed feasibility and viability appraisal of the proposed project

(2) **Changeable Interest**

The interest rate chargeable by these finance institutions for an industrial loan is as per the existing Central Bank rediscount rate plus a prime rate which is between 1% - 3%

(3) **Allowable Period**

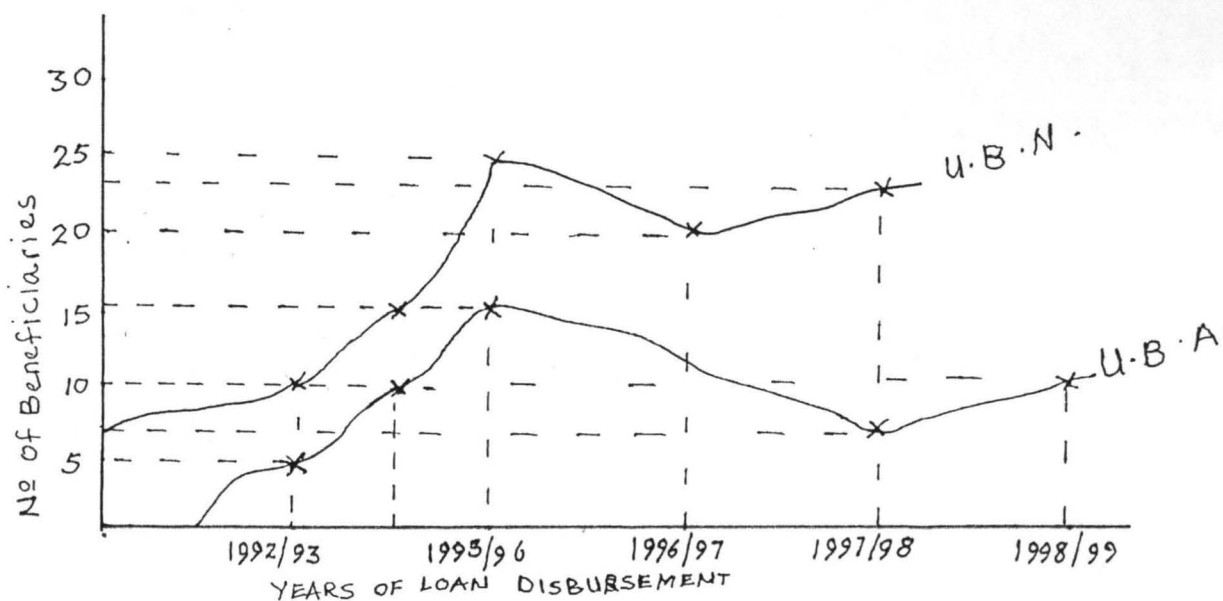
The maximum period allowable for the servicing of an industrial loan depends on the bank, the project and amount involved.

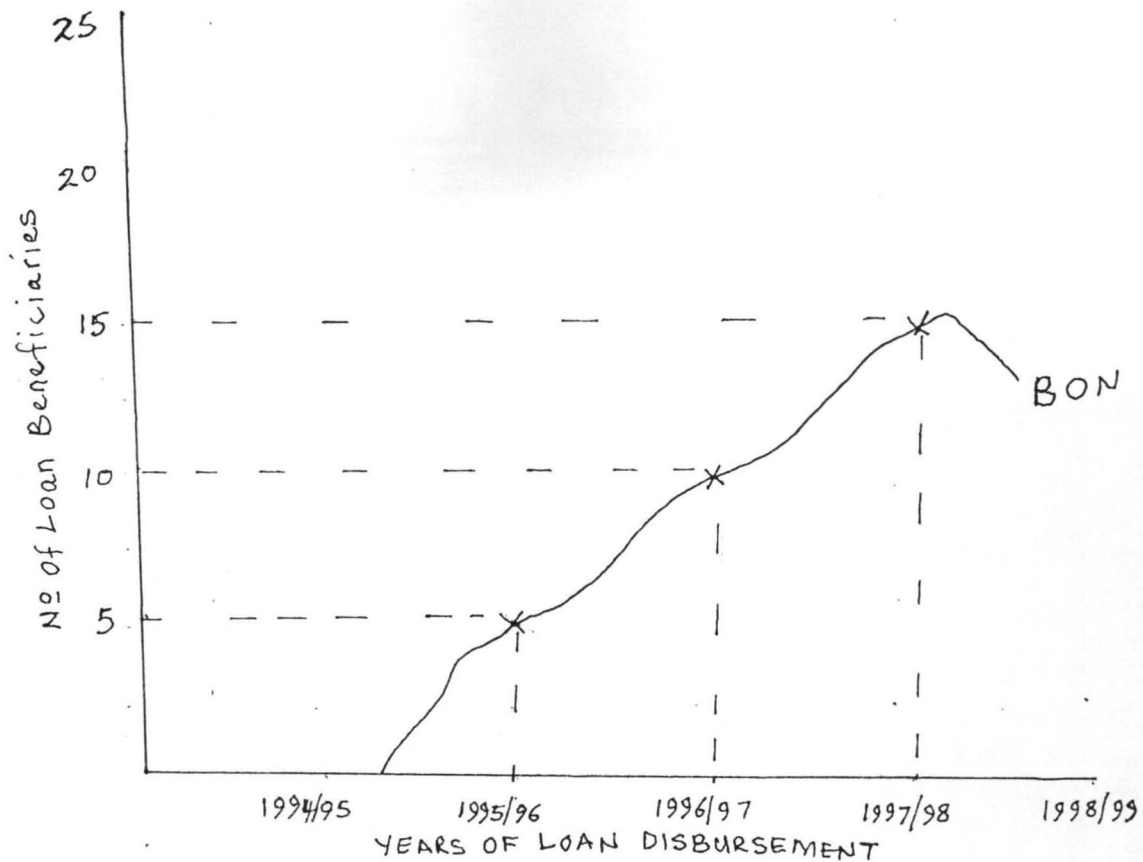
(4) **Applications Received**

From the data available the needs of application for industrial loan has been very encouraging.

(5) **Loan Beneficiaries**

So far, the beneficiaries of industrial loans from different finance institutions in the state is represented by the graph below:





From the above line graph.

U.B.N. The Union Bank of Nigeria, in 1994 granted loan to about 10 people, 15 people in 1995 and 25 in 1996. By 1997 the beneficiaries dropped to 20 people while in 1998 the number increase to about 24 people.

U.B.A The United Bank for Africa. In 1994 the bank granted loan to 5 people and 10 people in 1995. In 1996, 15 people benefited while about 6 people were granted in 1997/98 and 10 people in 1998/99.

BON The Bank of the North: The bank granted industrial loan to 5 people in 1995/96, 10 people in 1996/97 and 15 people in 1997/98. In 1999 no loan on industrial project was granted.

(6) Apart from the granting of loans the finance institutions also assist in the development of industries within the state through advisory and intermediaries with highly specialized roles.

4.2.3 THE INDUSTRIALIST

These are the main actors in this project work. About thirty (30) questionnaire were distribution out of which twenty (20) were returned. Most of the industries are small scale and uses raw materials within the state and neighboring states of Kogi, Kwara and Kaduna. The raw materials are transported by road to the factory sites.

(i) SOURCES OF POWER SUPPLY

The industrialist in the area relied on NEPA for their power generation.

This can be seen from table below were 90% uses NEPA

Table VIII showing the frequency distribution of power supply

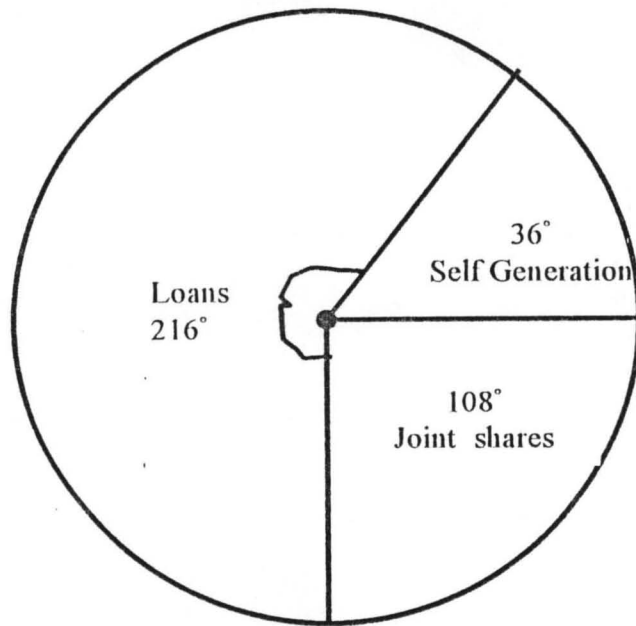
SOURCES	FREQUENCY DISTRIBUTION	PERCENTAGE
R.E.B	—	—
N.E.P.A.	18	90%
PRIVATE PLANT	2	10%
	20	100%

(ii) FUNDING

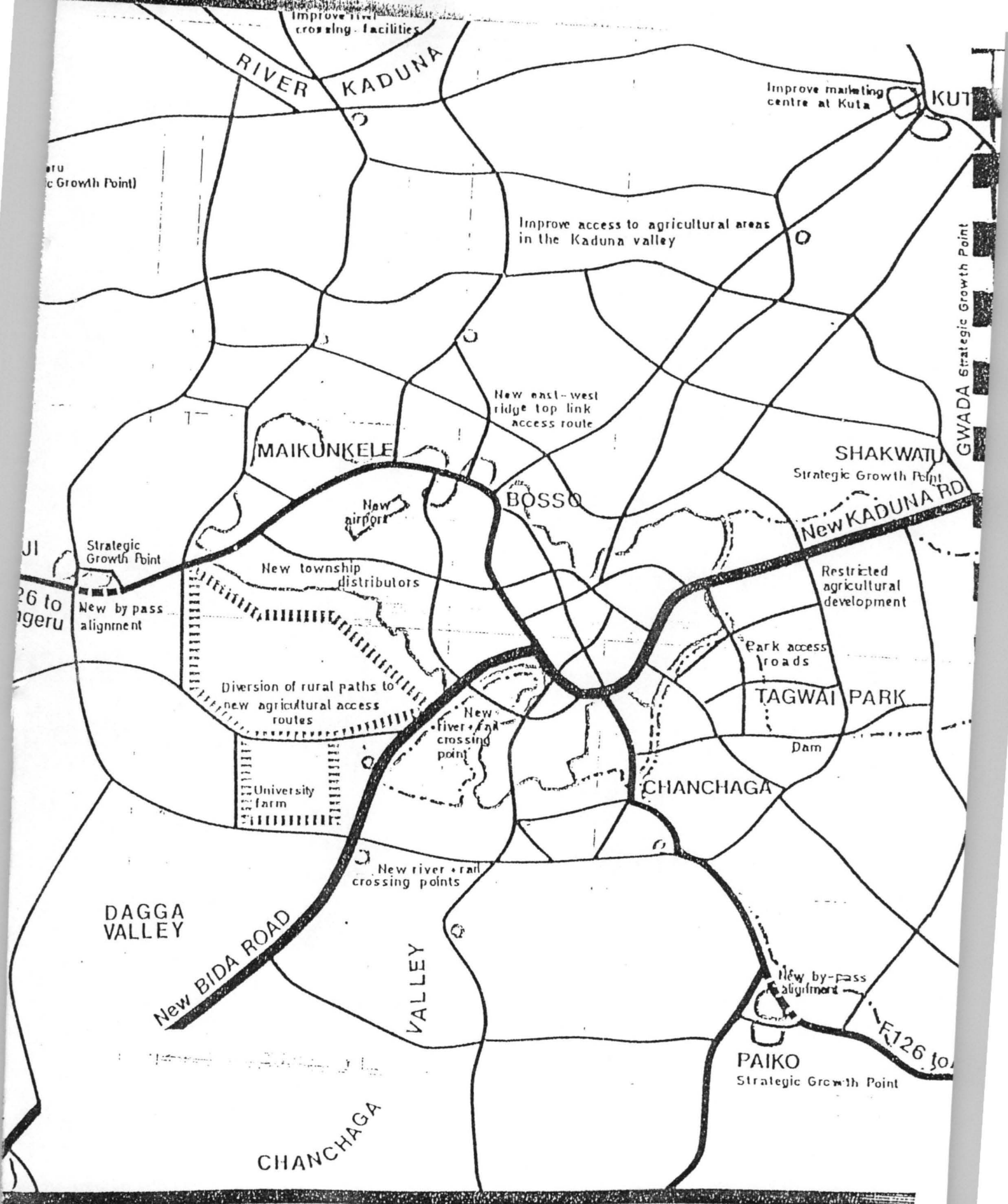
The establishment of an industry entails great financial commitment, which can only be done through loans and other financial assistance. From the data collected most funding of industrial development are done through loans and this is best illustrated below:

Table IX showing the frequency distribution of sources of fund

SOURCES	FREQUENCY DISTRIBUTION	PERCENTAGE
Self Generation	2	10%
Loans	12	60%
Joint Shares	6	30%
Any other source	0	0
	20	100%



From the chart above, it shows that most industrialist fund their establishment through loans taken from banks. This is because 216° representing 60% of the industrialist took loan from bank as against 108° or 30% that find their organisation from joint share, while 10% representing 36° from self-generation probably savings.



Sub Regional Development

- PROPOSED NATIONAL TRUNK ROADS**
- OTHER FEDERAL HIGHWAYS**
- DISTRICT ACCESS ROADS**

X

CHAPTER FIVE

5.0 CONCLUSION

This thesis has treated the problem and prospect of the development of industrial estate extensively. These have been traced to environmental impact, natural and man-made problems. These problems have adversely affected the use to which land can be put. The research further revealed that most land in and around Minna are mountainous while others are highly fertile and already under agricultural uses which do not render them easy to acquisition coupled with high compensation often demanded by traditional landowners/speculators.

The department of land and surveys is facing the problem of qualified personnel particularly in the field of estate surveyors and valuers, land surveyors e.t.c. other boards and government departments involved in the development of industrial estate faces similar man-power problems in their respective fields. The willingness and readiness of finance houses to grant loans will highly helps in boosting the development of industries, hence an increase in the demand for industrial plots.

It is in this regard that I recommend the efforts of the State Governor in trying to harness local resources for industrial development. Effective leadership is quite central to any success in the development process. Indeed as Prof. Jerry Gana put it in the paper he presented during the launching of an industrial development appeal fund

"If a nation is to develop; it must find leadersrational enough to challenge the existing fabric of myth, wise enough to chart new direction in policy, honest enough to withstand the temptations that confront all who hold positions of importance, fearless enough to brook the opposition of vested interest, and idealistic enough to persuade others that a better society is possible".

(Geo-potentials for industrialization of Niger State. Public Lecture by Dr. Jerry Gana- P. 22).

The destruction and disfigurement of land surfaces as a result of some human activities leave behind appalling sites of treeless plains, mould hills of dug out earth and eroded plains have resulted in the loss of natural beauty of the environment. This can be restored through massive afforestation programme and intensive adoption of conservation measures.

5.1 RECOMMENDATIONS:

In the course of writing this dissertation many problems were detected ranging from the natural problems, man-made problems to those of acquisition of site and need for prompt payment of compensation, basic infrastructure, skilled labour and administrative problems. Some of this problems can be overcome only through concerted effort from all, government can not do it alone.

5.1.1 LAND ACQUISITION

The basic of human existence is delved on land because he derives his livelihood from it. The supply of land is restricted to the sum total that is in physical existence. The supply of land in Niger State is faced with natural and man-made problems ranging from Hills, and mountains, Rivers, valleys to the earth's moulds and deep paddocks flooded with water resulting from the use of heavy machinery and equipment for mining activities. Government encounter problems in acquiring other portion that could be put to use. In this regard the traditional landowners refuse government the free hand to acquire an area despite the promulgation of the land use Decree which vested all land comprised in the territory of each state in the federation in the Governor of that state. This refusal problem is due to the system in use by the government in acquisition exercise. The usual practice is for the Director of lands in state to write the Area Lands office whose area of jurisdiction the land to be acquired situates to convene a site board meeting, which will see to how suitable the site is for the purpose intended. The site board recommend it to the Director for approval and if unsuitable choose and recommend an alternative site to be set aside for that purpose. The composition of site board members are:

- | | | |
|-------|--|----------|
| (i) | The Local Government Chairman
(whose Local Government area the land situates) | Chairman |
| (ii) | The Area town planning officer | Member |
| (iii) | The Resident surveyor | “ |
| (iv) | The Representative of the acquiring Authority/organisation | “ |
| (v) | The Local Government Land Settlement Officer | “ |

(vi) The Area Land Officer

Secretary

On approving the acquisition, the surveyor General of the state goes into the site for boundary demarcation after which the assessment of compensation begins where it is payable. (facts obtained through oral interview – March, 2000).

In the first instance, the procedure is virtually alright but the constitution of the site board members is faulty. I shall therefore recommend that, communities to be affected by the acquisition should be adequately represented in the board meeting. Other members should be able to enlighten the representatives on the nature and importance of the acquisition/the project and its benefit to the people of the area. With the above clearly indicated, some traditional landowners could release their land compensation free.

5.1.2 PROMPT PAYMENT OF COMPENSATION

When land is set aside for the use of an organisation or is granted under a statutory right of occupancy, it means that the customary rights of occupancy over the land are extinguished. The holders of these customary title (traditional landowners) have to be compensated.

The Land use Decree (Act) 1978 provides that the landowners is entitled to compensation that must be paid to him as right. The delay in payment has led to many problems such as inflated compensation owing from indiscriminate land speculation and delay in the commencement/early execution of projects. Prominent among these are the Shiroro Dam project; and the federal polytechnic in Bida. These projects were completed highly behind the schedule period. Government should therefore check the activities of these land speculators. Qualified valuers should be engaged in the assessment of compensation and the ministry of land and surveys should be solely charge with all assessments as provided for in the enabling Act. (Land use Act 1978). So as to curb the malpractice's being experience from the officials of other government departments that engaged in exercise.

5.1.3 PROVISION OF INDUSTRIAL INCENTIVES

To encourage the industrialists, government should give some forms of industrial incentives, which take different forms depending on the type of industry under reference. These incentives could be either direct or indirect:

- (i) **DIRECT:-** This involved direct government participation in the manufacturing investment. For efficient operations of these incentives, a periodic review is necessary so as to remove any measures that may operate against the spirit of industrial development and to attract more foreign investors.
- (ii) **INDIRECT:-** This falls into two:-
 - (a) **Fiscal Incentives:** Such as tariff protection, import – duty relief, accelerated depreciation allowance. Regulation of both interest and exchange rates and harmonization of taxes so as to enable the industries purchase their machines and raw-materials
 - (b) **Support Activities:** This takes the form of debenture and equity capital by Nigerian Industrial Development Bank, construction of industrial estate, and compulsory patronage of approved domestic manufactures by public bodies and technical assistance.

5.1.4 PROVISION OF BASIC INFRASTRUCTURES.

The provision of basic infrastructure is very important and essential in the development of industrial estates. Though these facilities have been provided adequately within the Sauka Kahuta industrial Area, government should ensure the earlier completion of Minna –Sarkin Pawa – Kaduna Road on which contract has since been signed and construction work abandoned. These road network is the main route that will directly connect Minna and the far Northern part of the country that might serve as provisional market for industrial products from Minna

5.1.5 THE GRANT OF LOANS.

The industrial estate so developed by the government can only be fully utilized when adequate funds are advanced to prospective industrialists. It is at the background of

this that government should as a matter of policy, revise the loan scheme periodically with a view to removing any terms that tend to militate against the spirit of industrial development. It is only by this way that industrial development shall find its fort in the state. Policies should be constantly reviewed so as to enable a re-examination of the area that need a re-adjustment for better performance.

5.1.6 MAN – POWER TRAINING.

Training is very important and essential for any category of works, as this will improve the individual's efficiency. It is at the background of this that every government in the country is striving hard into training its citizens. Niger State is lacking in the professional discipline particularly Engineering (Gas fields), environmental disciplines (Town planners , Land surveyors, Architects Estate surveyors / valuers, Environmental managers e.t.c) and others. Government should therefore mobilize her resources to train her citizens and no amount of resource expended in this direction should be considered too much.

5.1.7 DECENTRALIZATION OF NEPA'S POWER SUPPLY

The importance of the services of N.E.P.A can not be over-emphasized, but where the services are unreliable, this leaves more to be desired. For quite sometimes, the services of N.E.P.A. has been on the decrease with constant black-out as it is the only sole generator and distributor of electric power to the industrial zone. There should therefore be a competitive power generator running side by side with N.E.P.A so that a consumer can have the option of receiving his power needs from which ever supplier he so wishes. The immediate substitute which readily comes to mind is the R.E.B (Rural Electrification Board) whose efficient services had for long been cherished in the rural areas. It's services should be extended to the urban areas, so as to break the monopoly enjoyed by N.E.P.A.

From the foregoing, I wish to suggest that if this recommendation would carefully be adopted, so much problems could be overcome in the acquisition, development and maintaining a high standard industrial estate.

Mcikunkere Forest Reserve

Mcikunkere Forest Reserve

GCC
GIC
Federal Low Cost Housing

BOSSO

ATC
Alimadu Bahago FC

WTC
GRA

Old Airport

Polo Army Camp
Old GRA

Kwakwaji

TUDUN WADA

New Bido Road

NEPA 132KV

MNR Agric.

Army

MNR Vet. Div

Minna 1979

SCALE 1:50 000

0 1 3 kms
0 2 miles

E →

To Suleja
Abuja

Existing Land Use

■ Mainly Residential: High Density

▨ Institutions: Education

M Market

▤ Low Density & Existing Layouts

▥ Government

L.1.8.

BIBLIOGRAPHY

1. Industrial growth and world trade 1963 by **A. MAIZELS**.
2. Economics of land use planning by **W. LEAN**
3. Industrialization in Nigeria by **TERIBA AND KAYODE**
4. Economic Survey of Nigeria by **S.O. OLAYIDE**.

HANDOUTS

1. Niger State the New world of Investment by Niger State Ministry of Trade & Industry.
2. Land use Act No. 6 of 1978.
3. Chartered Surveyors (Professional Journal) 1962
4. British Town and Country Planning Act 1947
5. Geo – Potentials for Industrialization in Niger State by **Prof. JERRY GANA**

NEWS PAPERS

1. Weekly Newslite Newspaper.
2. Niger Community Concord.

APPENDIXES

QUESTIONNAIRE FOR INDUSTRIALISTS

The purpose of this questionnaire is to assist me in writing a thesis for the award of Post Graduate Diploma in Environmental Management.

All information and data so obtained by this medium shall be treated in strict confidence. I am craving for your indulgence by supplying the necessary information required so as to make exercise a huge success.

My topic for project dissertation is problem & prospects of industrial Estate Development in Niger State: A case study of Minna.

1. a). What is the name and address of this company/ organisation?.....
.....
.....
- b). The Company / Organisation is:-
 - i. Limited Liability Company
 - ii. Joint Stock Company
 - iii. Government Owned
 - iv. Sole Individual Owned
 - Any other ,
- c). The Company / Organisation was established in
.....
- d). i. Has the factory production?
 Yes No
- ii. If yes, when ?.....
- iii. If No, when do you expect to go into production.....
.....
- e). When are your source of raw material
 - i. Minna audits environ
 - ii. Neighboring State
 - iii. Other states of Nigeria

- iv. From African Countries
- v. From other Non-African Countries

f) How do you transport your materials to the factory?

- i. Road
- ii. Rail
- iii. Air
- iv. Sea/Road/Raid
- v. Sea/Rail
- vi. Air/Road

g) The factory / industry is situated on
Hectares of land.

2. a) Is the factory insured against fire, risks natural harzard e.t.c?

Yes No

b) If yes, the type of policy taken is

- i. Comprehensive
- ii. Third Party
- iii. Any other

3. a) Your source of power (Electricity) supply is

- i. REIB
- ii. NEPA
- iii. Private plant

b) The power required for this factory iskilowatts/
Megawatts / day

c) i. Do you face any problem in regards power supply?

Yes No

ii. If yes, what problem.....
.....
.....
.....

FINANCE

1. Your sources of finance for the establishment of this factor is

- i. Self Generation
- ii. Loans from bank
- iii. Joint Shares
- iv. Any other source

2. a) Do you face any problem as regards securing loans?

Yes No

b) If Yes, what problem:.....
.....
.....

STAFF WELFARE

1. a) Transport services are provided to convey the staff

Yes No

b) If no, what do you do as regards the health care of your staff

- i. First Aid Box
- ii. Send them to Govt. Hospital
- iii. Send them to private Hospital

STAFF TRAINING

1. a) What category of staff do you have?

- i. Senior ii. Intermediate
- ii. Junior

b) How many are there of each category

- i. Senior.....
- ii. Intermediate.....
- iii. Junior.....

2. Do you have any other category of staff? Please specify

Artisans, Labourers e.t.c.....
.....

3. How are your staff trained?

- Locally
- In Nigeria
- Overseas
- On the Job Training
- Any other

ACCOMMODATION

1. a) Do you have accommodation for your staff?

Yes No

3. Industrial hazards resulting from fire outbreak are common everywhere, what plans do you have towards protecting your factory?.....

.....
.....
.....
.....

QUESTIONNAIRE FOR GOVERNMENT UTILITY BORADS AND CORPORATIONS

The purpose of this questionnaire is to assist me in writing a thesis for the award of Post Graduate Diploma in Environmental Management.

All information and data so obtained by this medium shall be treated in strict confidence. I am craving for your indulgence by supplying the necessary information required so as to make exercise a huge success.

My topic for project dissertation is problem & prospects of industrial Estate Development in Niger State: A case study of Minna.

- 1. a) When was this Board / company established?.....
b) What are the main functions of the Board/ company?.....
.....
.....
c) What plans do you have for the Minna industrial Area (Sauka Kahuta) Particularly to solving the increasing demand for your service?.....
.....
.....
.....
- 2. What are your most serious impediments towards successful services to your customers?.....
.....
.....
- 3. What other additional information / data do you have that will help me in this research?.....
.....
.....

Thank you for your kind co-operation.

M. S. USMAN
PGD / ENV; MGT:

QUESTIONNAIRE FOR FINANCE INSTITUTION

The purpose of this questionnaire is to assist me in writing a thesis for the award of Post Graduate Diploma in Environmental Management.

All information and data so obtained by this medium shall be treated in strict confidence. I am craving for your indulgence by supplying the necessary information required so as to make exercise a huge success.

My topic for project dissertation is problem & prospects of industrial Estate Development in Niger State: A case study of Minna.

1. a) As a motivator in the development of industries and other business ventures, what criteria do you use for granting of loans?.....
.....
.....

2. What rates do you charge for industries loans?.....
.....
.....

2. What is the maximum period allowable for the industrial loan?.....
.....
.....

4. Has it been encouraging in the need of application for industrial loans
 Yes No

5. So far, how many have benefited from your loan scheme for

1994 / 95	
1995 / 96	
1996 / 97	
1997 / 98	
1998 / 99	

5 What other ways apart from the granting of loans does your organisation assist in development of industries within the state?.....

.....
.....

6 Any other relevant information?.....

.....
.....

M. S. USMAN
PGD / ENV; MGT:

MEDIUM AND HEAVY INDUSTRIAL LAYOUT

MINNA(SAUKE KAHUTA AREA)

CHANCHAGA LOCAL GOVERNMENT AREA

NIGER STATE

ORIGIN U.T.M. ZONE 32

[Signature]

SHIRAZI GENERAL
SEPTEMBER 1984

BEACONS	BEARINGS	DISTANCES
From MA 7454-MA 7453 on 99° 07'	at 30.0m	
7453 - 7452	184° 50'	15.0
7452 - 7455	272° 57'	32.7
7455 - 7456	131° 30'	18.5
7452 - 7333	184° 50'	15.0
7333 - 7350	273° 21'	35.0
7350 - 7455	131° 30'	15.0
7479 - 7354	209° 15'	70.1
7355 - 7356	283° 15'	20.0
7356 - 7357	281° 15'	23.0
7357 - 7358	283° 15'	20.0
7358 - 7475	16° 58'	20.0
7475 - 7476	103° 18'	20.0
7476 - 7477	103° 14'	23.0
7477 - 7478	103° 14'	20.0
7478 - 7479	103° 15'	41.0
7355 - 7478	137° 14'	29.0
7356 - 7477	12° 42'	20.0
7357 - 7476	17° 08'	20.0
7479 - 7371	205° 56'	30.1
7371 - 7419	286° 49'	39.6
7419 - 7418	286° 49'	15.0
7418 - 7417	286° 49'	15.0
7417 - 7416	286° 49'	15.0
7416 - 7415	25° 52'	29.9
7415 - 7414	106° 44'	15.0
7414 - 7413	106° 44'	15.0
7413 - 7412	106° 44'	15.0
7412 - 7411	106° 44'	15.0
7411 - 7410	106° 44'	39.5
7410 - 7409	26° 06'	30.0
7409 - 7408	26° 04'	30.0
7408 - 7407	26° 11'	30.0
7407 - 7406	25° 59'	29.9
7406 - 7405	92° 51'	23.4
7405 - 7404	240° 25'	56.8
7404 - 7403	240° 25'	34.4
7403 - 7399	240° 25'	25.1
7399 - 7395	292° 06'	25.0
7395 - 7396	31° 56'	26.2
7396 - 7397	31° 55'	25.0
7397 - 7401	112° 45'	23.6
7401 - 7400	111° 33'	24.6

LINE NO	AREA (M ²)	PLOT NO	AREA (M ²)
9	0.036	34	0.044
10	0.034	35	0.044
11	0.203	36	0.264
15	0.081	37	0.164
16	0.039	41	0.120
17	0.060	44	0.058
18	0.040	45	0.060
31	0.117		

U.T.M. Zone 32, coordinates of MA 2227

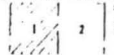
M 1,052,453.096 Design U.T.M. Zone 32
E 228,763.567

Surveyed by H.H. Moyo, I. Mashi & S. Ojo. Final July 1984

Drawn by *[Signature]*
Checked by *[Signature]*
Based on *[Signature]*

Detail shown are the result of accurate survey
All bearings and distances shown on this
plan have been computed from Registered
Co-ordinates
Proposed Road

REFER TO ADJOINING SHEET



Plan No | MTP 54 OF LPN 96

TOPO SHEET 164 SW

Sheet No of Plot 90

Total Area 111.33 Hectares

SCALE = 1:2500 at 1 CENTIMETER = 25 METERS
METERS 50 0 50 100 150 200 250 300 350 400 METERS

22456

22800

23250

23650

24150

24650

