CONTRIBUTION OF SOKOTO RIMA RIVER BASIN DEVELOPMENT AUTHORITY TO RURAL DEVELOPMENT IN SOKOTO STATE NIGERIA

2005- 2010

BY

Mohammed Yabo UMARU
Ph. D/Admin/09757/2006-2007

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DECLARATION

I declare that this dissertation entitled contribution of Sokoto Rima River Basin Development Authority (SRRBDA) to Rural Development in Sokoto State 2005-2010 is the result of my own research work and it has been written by me.

The work embodied in this dissertation is original and has not been submitted in part or full for any degree of this University or any other University. All works cited are duly acknowledged.

UMARU, MUHAMMED YABO **……** **……**

NAME OF STUDENT **SIGNATURE** **DATE**

CERTIFICATION

This thesis entitled **"*Contribution of Sokoto Rima River Basin Development Authority (SRRBDA) to Rural Development in Sokoto State 2005-2010"*** by Mohammed Yabo UMARU meets the regulations governing the award of the Degree of Doctor of Philosophy (Public Administration) of Ahmadu Bello University, Zaria and is approved for its contribution to knowledge and literary presentation.

_____ _____

Prof. A.A. Anyebe *Date*
Chairman, Supervisory Committee

_____ _____

Dr. S.B Abdulkareem *Date*
Member, Supervisory Committee

_____ _____

Prof S.A Abdullahi *Date*
Member,Supervisory Committee

_____ _____

Dr. H.A Yusuf *Date*
Head of Department

_____ _____

Dr Kabiru Bala *Date*
Dean, School of Post Graduate Studies

DEDICATION

This dissertation is dedicated to my family, friends and well wishers whose encouragement and moral support inspired me to undertake the study despite the daunting challenges of the moment.

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ABBREVIATION

ADP	-	Agricultural Development Project
BIP	-	Bakolori Irrigation Project
CBN	-	Central Bank of Nigeria
C.B	-	Community Bank
DFRRI	-	Directorate of Food, Roads and Rural Infrastructure
FEAP	-	Family Economic Advancement Programme
GDIP	-	Goronyo Dam Irrigation Project
GDP	-	Gross Domestic Product
IFPRI	-	International Food Policy Research Institute
IMF	-	International Monetary Fund
IFAD	-	International Fund for Agricultural Development
NBS	-	National Bureau of Statistics
NACB	-	Nigeria Agricultural and Co-operative Bank
NDE	-	National Directorate of Employment
NAPEP	-	National Poverty Eradication Programme
NPC	-	National Population Commission
NAGPER	-	Nigeria Agriculture Public Expenditure Review
NAFRI	-	Nigeria Food Research Institute
OFN	-	Operation to Feed the Nation
RBDA	-	River Basin Development Authorities
SRRBDA	-	Sokoto Rima River Basic Development Authority

Abstract

The aim of this study is to highlight the contribution of Sokoto Rima River Basin Development Authority to rural development in Sokoto State by identifying the socio-Economic benefits provided towards improving the living standard of the rural dwellers in the authority's catchment areas. The data for the study was collected through questionnaire, observations, as well as official records of Sokoto Rima River Basin Development Authority, textbooks and other published and unpublished material. The questionnaire was distributed in eight local government areas involving fifteen villages using stratified sampling and the data collected were analysed using Pearson Chi-square statistical techniques in order to test the relationship between Sokoto Rima River Basin Development Authority activities and increase in agricultural production and improvement in the socio-economic lots of the target population. On the basis of its findings and observation, the study recommended among others that SRBDA should be well funded by the Government so as to be able to carry out its functions.

CHAPTER ONE

Introduction

1.1 Background to the Study

The rural areas in Nigeria are usually inhabited by the bulk of the country's population. They serve as the base of production of food and raw materials. They are also a source of capital formation for the country and a principal market for domestic manufactures. In spite of the importance of the rural areas the areas are not attractive to live in and are home to the incidence of higher poverty in Nigeria. The World Bank's study (2006) States that:

> *Poverty in Nigeria is widespread and severe poverty is highest in rural areas. The number of rural poor is roughly twice that of urban poor. The depth of poverty was more than double in rural areas, of the extreme poor 85% live in rural areas and more than two third lives on farms. Income inequality is also worse in rural areas (World Bank, Report 2006)*

In the same vein the National Bureau of statistics states that the incidence of poverty in the rural areas in 2005 was 63.3% compared to 43.2% in the urban areas. This fact is logical given that most of the indicators of poverty are more glaring in the rural areas. Usually there is absence of water, electricity, good roads, health facilities and qualitative education .Just before independence in 1960 Nigeria turned its attention to the rural population which was then wallowing in abject poverty and continued to concentrate its efforts on this section of the population for many years after. Many rural development projects were set up to improve the social and economic wellbeing of these people.

Some of the programmes and outfits introduced included the establishment of such institutional infrastructures for rural development like the Agricultural Credit Guarantee scheme to complement the activities of the Nigerian Agricultural and Co-operative Bank (NACB) now Bank of Agriculture),the Operation Feed the Nation(OFN), Green Revolution, River Basin Development Authority(RBDA'S), provision of improved input to farmers through the National Accelerated Food Production Programme(NAFPP) the Fertilizer Procurement and Distribution Programme(FPDP), the establishment of the Directorate of Food, Roads and Rural Infrastructures(DFRRI), The National Directorate of Employment(NDE), Integrated Agricultural Development Projects(IADP), Peoples Bank of Nigeria(PBN), Community Bank(CB), Family Economic Advancement Programme(FEAP) National Poverty Alleviation/Eradication Programme(NAPEP)and recently Agricultural Transformation Programme(ATA).

The development of rural areas impacts positively on per capita income and food production, and leads to decrease in the disparity between rural and urban incomes thereby reducing rural to urban migration. It would also bring about an increase in the level of employment, increase in both domestic and foreign investments and improvement in infrastructural facilities available in the hinterland.

Maximizing agricultural production from available agricultural land has attracted the attention of agricultural scholars and concerned citizens ever since Nigeria became a food deficit country in the 1970s (Oramah and Ogbu, 1993). They stressed that during the 1970s and early 1980s, declining domestic food production was supplemented with food imports financed by huge earnings from oil. The food import bill, according to CBN (2006), rose from $ 1.46 Billion to $226 Billion between 1992 and 2003.

Nigeria is predominantly an agrarian nation endowed with an estimated total land area of 98.3 million hectares, out of which 71.2 million hectares are arable, and an estimated human population of about 160 million (National Population commission 2011). Agriculture remains the largest employer of labour in Nigeria as it employs 65 percent of the total labour force, and also a major contributor to gross domestic product (GDP).

Agricultural production till date remains the mainstay of the Nigerian economy. It is the main source of food for most of the population , a major source of raw materials for the Agro Allied industries and a potent source of the much needed foreign exchange (Okunmodewa 1997) The agricultural sector in periods immediately after independence performed creditably the roles highlighted above, however from early 80's to date the sector has witnessed a tremendous decline in its contribution to national development, for an instance the percentage of economically active population in

agriculture nosedived to 50 – 52% in late 90's, development economist have in fact attributed the present economic situation in Nigeria to the poor performance of the agricultural sector. The small scale farmers produce about 85% of the total production (Okuneye 1995). These farmers are characterized by a strong dependence on agricultural labour market, little or no form of savings or storage facilities. The socio-economic and production characteristics of the farmers, in consistent and unfocussed government policies, the poor infrastructural base all interact in a synergy to hinder the development of the sector resulting in low production, high prices of food items, Inflation, underdevelopment and concomitant poverty. The place of agriculture in an agrarian society cannot be over emphasized given it's important in the life of the human beings. Agricultural is expected to ensure adequate supply of food to the people, similarly it is expected to produce a high level of agricultural raw materials for the industries, save the industry and the nation from high costs of importation of food and finished products and continually generate employment for the people as well as high level of returns for the farmers. It should be noted that agriculture has been beset by long standing problems impending its productivity and contribution to national aggregate output

Nigeria remains a food deficit and food insecure country since there still existed households that persistently lack the ability to either buy food

or to produce their own. To obviate this problem the Federal Military Government in1975 set up a Ministry of Water Resources charged with the responsibility for the development of water resources .Its aim was to boost agriculture, and its major thrust was directed towards construction of dams for irrigation and flood control, and in particular the development of river basin and underground water resources.

George (1999) emphasized that satisfactory production levels and stability of supplies should be matched by a reduction in poverty and increase in the effective demand to ensure economic and physical access for the poor. This enabling route may consist of income generation opportunities like providing more irrigation resources and opening up more agricultural land for farming.

Sokoto state is endowed with land and other resources that support the development of all facets of agriculture ranging from crops, livestock and fisheries among others. Over 70% of the State population is engaged in one form of agricultural production or another during the rainy season. But yields of rainfall are generally low due to the arid nature of the State that can only support early maturing crop varieties. However dry season crops yields are higher because of irrigation facilities that match the soil and climatic conditions of the State. Currently agricultural sector employs over 90% of the workforce in the State and has the potential of providing income and jobs to many rural

dwellers in addition to provision of food materials. However, only 52.1% of the arable land is under cultivation leaving 47.9 of the land uncultivated. Accordingly, only 14.4% of irrigable land is currently irrigated leaving 85.6% of irrigable land un-utilized (Sokoto State Government report 2007).

Sokoto Rima River Basin Development Authority and 10 other RBDAs were established by the former Federal Military Government under Decree No 25 of 1976, with the express purpose of achieving comprehensive and integrated rural development such as the provision of irrigation facilities, flood control domestic/industrial water supply and hydro electricity. The existing Authorities covering the whole country are as follows

1. The Sokoto Rima River Basin Development Authority;
2. The Hadeja-Jama'are River Basin Development Authority;
3. The Upper Benue River Basin Development Authority;
4. The Chad Basin Development Authority;
5. The Lower Benue River Basin Development Authority;
6. The Niger River Basin Development Authority;
7. The Cross River Basin Development Authority;
8. The Anambra-Imo River Basin Development Authority;
9. The Ogun-Oshun River Basin Development Authority;
10. The Benin Owena River Basin Development Authority;
11. Niger Delta River Basin Development Authority.

By virtue of the SRRBDA amendment decree no 35 of 1987, Sokoto Rima River Basin Development Authority was established to achieve the fallowing objectives;

a) To undertake comprehensive development of surface and underground water resources for multi-purpose use with particular emphasis on the provision of irrigation infrastructure and the control of floods and erosion and for watershed management.

b) To construct, operate and maintain dams, dykes, polders, wells boreholes irrigation and drainage systems, and other works necessary for the achievement of the Authority's functions and hand over all lands to be cultivated under the irrigation scheme to the farmers.

c) To supply water from the Authority's completed storage schemes to all users for a fee to be determined by the Authority concerned.

d) To construct, operated and maintain infrastructural services such as roads, and bridges linking projects sites, provided such infrastructural services are included and form an integral part of the list of approved projects.

e) To develop and keep up-to date comprehensive water resources master plan, identifying all water resources requirement in the Authority's area of operation, through adequate collection and collation of water resources, water use, socio-economic and environmental data of the River Basin (FGN 1987).

The following are the aims and vision of the SRRBDA as spelt out under the above amendment Decree No35 of 1987.

1. Facilitate economic development and improve the welfare of the rural dwellers in Nigeria through the production of available and affordable food by improving irrigation farming and other water resources management techniques.
2. The management of water resources for sufficient and efficient consumption and utilization.
3. Prevention and control of flood and erosion to ensure effective utilization of farm lands and peaceful living for economic development.
4. Rendering assistance to other Authorities concerned with rural development in those areas that improve the food lot of Nigeria (FGN 1987).

Thus the SRRBDA was specifically designed and saddled with the responsibility of solving the problems of declining agricultural productivity and for encouraging the diffusion of agricultural productivity and improving the living standard of the rural dwellers.

The oil boom of 1970s with its sudden and unexpected wealth seriously undermined the status of agricultural production and inevitably succeeded in creating utter neglect for and relegation of agriculture to the background. Thus by 1976, the declining rate of agriculture which was about 7.8% between 1970 and 1974 reached an intolerable level of 11%. This embarrassing decline and its

concomitant food crisis led to the Federal Government decision that the only way out to this situation (starvation and erosion of political independence) is for Nigerians to feed themselves rather than depend on the importation of food formed part of the rationale for the creation of RBDAs.

The present rural development situation in Nigeria as observed by Ogueri (2010) reveals the following: High Level corruption, absence of genuine commitment from Government, poor leadership and management, unqualified contractors executing development project, too many community development groups with personal hidden interest, greed, lack of formal development plan, rural development contracts awarded to party loyalist, personal interest above national interest, poor monitoring and evaluation, lack of supervision, lack of awareness and enlightenment, high level of poverty, high level of unemployment, and lack of execution capacity.

The lack of effectiveness of rural development programmes has resulted in migration of able bodied young men and women from the rural to the urban centres in search of jobs and other opportunities to escape the poverty of the rural areas. The absence of infrastructural facilities in the rural areas and lack of education relevant to the needs of the populace have also aggravated the plight of the rural dwellers, despite their large numbers they suffer neglect from the Government because they have no voice.

In summarizing their experience on the spate of rural development in Nigeria since independence Awobagbe and Abdullahi (1980) indicated that: if the concepts of rural development in Nigeria means the improvement of the living conditions and life changes of the rural population, it can be safe to say that overtime these conditions have not changed significantly and in fact have deteriorated in terms of socio-economic development. This then puts into question the whole philosophy behind the system of ideas which has been informing the various strategies advocated for rural development in Nigeria. According to Okuneye (2001) the major problems of the rural areas are as follows:-

(i) Poor feeder roads and inadequate road network between the rural areas where agricultural production mainly takes place and the urban areas;

(ii) Lack of appropriate farm and off-farm storage facilities;

(iii) The rural electrification programmes in Nigeria have not fully taken off as the government battles with the supply of electricity in urban areas;

(iv) Irrigation facilities are still very poor despite the existence of River Basin and Rural Development Authorities (RBRDA).

(v) There are few or no health care facilities in the rural areas and hence a lot of man-days are lost to ill-health which could have been easily treated;

(vi) Schools (primary and secondary) are few in the rural areas and hence the migration of youth to the urban areas, among other reasons

In view of the following identified problems of the rural areas, various scholars have argued in favour of integrated rural development in Nigeria. According to Osman (1989) equity and Social justice are some of the reasons adduced to justify rural development. He maintained that in Nigeria the population is predominantly rural and rural activities are important basis of national income generation therefore any effort to develop the rural areas requires the mobilization of rural resources as a means of improving directly the standard of living of the rural population and to bring it into the mainstream of national economic development.

To Abbas (1993) since the rural population constitute a larger proportion of our population and produce larger percentage of essential food items, they should enjoy the end result of their labour.

Similarly in the studies conducted by Chambers (1983) based on African societies he argued that it is imperative to develop rural areas because of the following fundamental reasons: He argued that the overwhelming majority of Nigerians lives and find their means of livelihood in the rural areas. And that it is in the rural areas that most of the poorer and most disadvantaged people are to be found. Drifts to towns from rural areas should therefore be a matter of concern because of the increasing rate of urban unemployment, Housing problems with increasing crime rate and other attendant social evils were identified as the militating conditions of the poor. Hundreds of millions of the rural people were therefore, drifting daily into deeper and more tightly

integrated poverty. They are faced with the vicious cycle of poverty i.e the syndrome of poverty trap.

Again according to Chambers, rural poverty contributes for instance to the physical weakness of rural dwellers through lack of proper feeding which leads to low immune response to infections; inability to reach or pay for health-care services; isolation because of the inability to pay the cost of schooling; or even buy a radio; inability to travel to search for work; to live near the village centre or a main road; and vulnerability through lack of assets to pay large expenses or meet contingencies; and powerlessness due to lack of wealth and low status (i.e. the poor has no voice).

The urban-rural divide in Nigeria is the result of the deliberate policy pursued by the British colonial masters whereby all infrastructural development were concentrated in urban areas to allow for easy administration and exploitation of colonies resources to the total neglect of the producing rural dwellers.

Rural development efforts should therefore be focused on the empowerment of the rural poor to enable them break-loose from the poverty trap and to eliminate all forms of their exploitation by the rich.

1.2 Statement of the Problem

The performance of irrigation projects in the provision of flood protection and higher yields becomes increasingly important from day to day as this country becomes a net importer of most commodities such as rice, maize and

wheat. These shortages in food production are occurring as a result of high population growth rates and rapid urbanization in the face of stagnant agricultural production. This in turn has led to increased demands for the production of food crops. SRRBDA and 10 other RBDAS were established by the former Federal Military Government with the express purpose of solving these problems.

However in spite of the huge investments on SRRBDA and similar RBDAs it has not been able to raise substantially food production as evidenced by food insecurity and pervasive poverty in the host communities. Sokoto state ranked highest in 2011 in the national aggregate of poverty with 86.4% of the 3 million people residing in the state living below poverty line of less than one US dollar a day (NBS 2012).

According to the Federal Ministry of Agriculture (2011) ₦98 trillion was expended from 2007-2010 on food imports to Nigeria. In 2010, N635 billion was expended on wheat import, N365 billion on rice, N217 billion on sugar, N75 billion on milk and N97 billion on fish.(FMOA,2011)

Additionally one of the objectives of SRRBDA is flood prevention and control, which the authority is unable to carry out adequately resulting in to a series of flooding and displacement of farmers from their farmlands, notable being, Sokoto flood of 2010 in which 95 villages and 192, 791 persons were displaced. (SOSG Report 2010).

Flood causes damages to agriculture, people and property. It damages standing agricultural crops and may also carry away the top soil making the land barren. Flooding causes damage to infrastructure like roads and bridges in urban areas and destroys farmlands in agricultural areas. In general, on the long-term, flood causes poverty and food insecurity. (Romney, 1994).

The problem which this dissertation seeks to address is why it that despite the huge resources expended on the SRRBDA and the laudable objectives saddle on it, the authority has not been able to address the issue of low agricultural productivity, flooding and rural to urban migration among a host of others. Arising from the foregoing, the following research questions become pertinent to be explored and these are:

1. To what extent has SRRBDA provided irrigation facilities in Sokoto State? And what is the relationship between funding and the development of irrigation farming by SRRBDA in Sokoto State.

2. To what extent has SRRBDA contributed towards prevention and control of floods and soil erosion in project areas? And what is the relationship between funding and adequate control of floods and soil erosion by SRRBDA.

3. To what extent has SRRBDA contributed to rural development in terms of construction of feeder roads and provision of other infrastructural facilities in Sokoto State?

4. To what extent has SRRBDA carried along rural dwellers in the implementation of its programmes and what is the level of community participation and involvement in its areas of operation.

5. What are the obstacles to the successful implementation of SRRBDA programme? And what are the ways for enhanced performance?

1.3 Objectives of the study

The main objective of this study is to assess the contribution of Sokoto Rima River Basin Development Authority to Rural Development in Sokoto State.

Specific objectives include:

1. To examine the extent to which SRRBDA has provided irrigation facilities in Sokoto State.
2. To highlight the extent to which SRRBDA activities have prevented and control flood and erosion.
3. To examine the extent to which SRRBDA has constructed feeder road and provides other social services in Sokoto State
4. To examine the extent to which community accept and participate in SRRBDA activities in Sokoto State.

5. To identify areas where the programme could be strengthened to achieve better results.

1.4 HYPOTHESES

The hypotheses to be tested in this study are as follows:

H_{oi} There is no significant relationship between funding of SRRBDA and the provision of irrigation facilities.

H_{oii} There is no significant relationship between adequate funding of SRRBDA and the effective control of flooding and soil erosion.

H_{oiii} There is no significant relationship between community involvement and the successful implementation of SRRBDA projects.

H_{oiv} There is no relationship between political environment and Administrative procedure and the ability of SRRBDA to implement its activities.

1.5 Significance of the study

Nigeria has been facing very serious food shortage problems for quite some time now. Federal and State governments throughout the country have appreciated the reality that small, local farmers who have traditionally produced the bulk of the nation's food requirement constitute the most effective means of meeting the agricultural needs of the country. It is the recognition of this fact that led the country to adopt the strategy of establishing the eleven River Basin Development Authorities under the Federal Ministry of Water Resources.

In view of the socio-economic problems posed by the continued influx of the rural people into our cities and towns nothing can be more important than making the rural areas habitable through development so as to reduce the pressure of urbanization on the towns and cities across the country. Thirdly in view of the enormous losses incurred as a result of resettlement crises and flood such as the Bakolori uprisings of 1981 and Sokoto Flood of 2010 where hundreds of lives and properties were lost (SOSG Report2010) a study into the cause and remedy of future occurrence is of vital importance to both the government and benefiting communities. The study is therefore significant in generating awareness about the need to integrate the rural sector into the process of national development through effective rural development programmes and proffer suggestions on ways to tackle resettlement and flood problems in the project catchment areas.

Based on the stated objectives potential weak points or areas of failures of the programme will be identified and possible remedial action or suggestions for improvement will be offered. If there is any obstacle to the present arrangement and modus operandi in running the authorities activities suggestions on how the programme could be restructured or new strategies be introduced to achieve better results would also be offered

In a nutshell this study would serve as a useful guide and reference material for policy makers and implementers in the area of agriculture and rural

development and particularly in the nation drive to ensure food security and sufficiency for the teeming population.

1.6 Scope and Limitations

This study focuses on the activities and projects undertaken by Sokoto Rima River Basin Development Authority to enhance agricultural development and raise the socio-economic status of the rural populace in its areas of intervention.

Scope

1. The study covered a period of 6 years (2005-2010). The research is descriptive in nature and survey studies were conducted in 15 villages in the catchment areas of SRRBDA spread across 8 local government areas in Sokoto state. The choice of the 15 villages is done in such a manner to ensure that the 3 major irrigation projects under River Sokoto, River Rima, and Shagari Dam were represented to ensure that the research findings would be of general application to all SSRBDA catchment areas.

The 15 villages are in Wamakko, Kware, Goronyo, Wurno, Sokoto South, Sokoto North, Yabo, Shagari local governments areas in Sokoto state. The choice of the period is based on the fact that since the establishment of SRRBDA in 1976 there is no time the authority got prominence and federal government attention and funding than the period between 2001 – 2010, it is therefore expected that as a result of enhanced funding the authority should be

able to make its impact felt in raising agricultural productivity and empowering rural farmers through opening up more areas for irrigation farming.

The research dwelt on issued relating to;

1. Increase in agricultural production as a result of SRRBDA operations.
2. Increase in rural dwellers income and standard of living and
3. Effects of flooding and non resettlement of displaced farmers on SRRBDA operations. and
4. Effects of poor funding on SRRBDA operation

Limitations

There are several factors that have the tendency to affect the quality of this study negatively and they are as follows.

1) Reliability of the Data generated: Some farmers feared that, Data collected may be used for official purpose and feel not free to express some negative impact of SRRBDA operation for fear of victimization.

2) Quality and quantity of data generated because of the illiteracy level in the rural areas. There is also limitation of time i.e. 6 years which was based on what is practicable within the constraint of time and resources of the researcher.

3) Generalization; 15 villages were selected in 8 Local Governments in a State of 23 local government areas. There is the problem of how to generalize research findings to apply to the whole state. But because of

stratified sampling used, the researcher has made all efforts to ensure that all ages, sex, associations and interests are taken into consideration when distributing the questionnaire.

4) Personal biases of the researcher. The research is liable to have some rudiments of personal bias both on the side of the researcher and the respondents most especially when most of the Government programmes are politicized. The political divide may determine ones perception and evaluation of a programme, also farmers affected negatively by SRRBDA such as those displaced by construction of Dams may likely have prejudice against the Authority.

1.7 Plan of the Dissertation

This study is divided into Six Chapters as follows:

Chapter one; Introduction- this chapter provided the background information followed by Statement of problem, objectives of the study, and the significance and justification for the study. The hypotheses were given for confirmation on collection of data. Also terms used in the study were explained and organizations of the work were outlined.

Chapter Two: Literature Review and theoretical framework- in this chapter relevant works, journals and document relating to rural development which has been found useful were extracted for appropriate application. Theories of rural

development were also explored and adopted appropriate theory i.e. system theory as guide to this study.

In chapter three of this studies all methods of data collection and analysis were outlined and explained in detail. The chapter highlighted instruments of Data collection and methods of data analysis i,e sampling and sampling technique and the Pearson correlation coefficient.

Chapter four of this study highlighted the establishment, structure, organization and achievements recorded by SRRBDA from 2005-2010

Chapter five was devoted to data presentation and analysis, data collected in relation to the objectives of the study and the hypothesis set is presented and analysed in this chapter. The hypothesis is also tested here.

Chapter six is the summary, conclusion and recommendations and it summaries the work. Conclusions were highlighted and recommendations proffered for enhanced performance of SRRBDA and other similar outfits in Nigeria.

1.8 Definition of Key Concepts

"Rural" According to Williams (1982) rural refers to an ''area in which people depend mostly on primary industries for their living and in which most of the modern amenities are lacking''

''Rural Development'' according to Mabogunje (1963) "implies a broad based re-organization and mobilization of rural masses so as to embrace their

capacity to cope effectively with the daily task of their lives and with the changes consequent upon this ”

To Uma-lele (1975) Rural development is the ‘’improvement of the living standards of the mass of the low income population residing in rural areas and making the process of their development self sustaining ’’.

Rural development to United Nations Agency for Social and Economic Development ‘’is the quantitative change or upliftment in the standard of living people in rural areas brought about through institutional approach by the government agencies and the people themselves’’.

From these definitions it can be deduced that for any result oriented rural development programme the following are important. Viz:

(a) Upliftment in the living standard of rural dwellers.

(b) Involvement of rural communities in their developmental efforts.

(c) Making the process of rural development self sustaining for rural areas.

The US Department of Agricultural Economic Research Services (1991) listed out the following objectives as their rural development priorities:

(i) Reduction of the rural- urban gap in material living standard,

(ii) Reduction of persistent high rural poverty rate, improved socio-economic viability of vulnerable rural communities.

(iii) presentation of rural areas unique culture and natural character,

(iv) survival of family base farming, fishing and other natural resources based enterprises,

(v) Enhance rural contribution to the national "wellbeing" and resources conservation and environmental protection.

SRRBDA is set up to procure the objectives of harnessing developing, conserving organising and efficient utilization of available land and water resources within the Rima basin with a view to improving the standard of living and quality of life of Nigerians particularly those in the rural areas through irrigation, agronomy and supply of portable water for both human and animal consumption.

1.9 Operational definition of Rural Development

For the purpose of this study we adapted the definition of rural development by Akinleye(2005) defined 'As the outcome of a series of quantitative and qualitative changes occurring among a given rural population and whose converging effects indicate in time a rise in the standard of living and favourable changes in the way of life of the people concerned". This Study therefore used the concept of rural development to mean improvement in the socio economic conditions of the rural communities in which better job opportunities are created, family incomes are increased through increased production in agriculture and provision of basic infrastructures such as portable water, good access roads, housing, health and educational facilities.

CHAPTER TWO

LITERATURE REVIEW AND THEORETICAL FRAME WORK

2.1 Introduction

This chapter examines past efforts for rural development in Nigeria since 1960. Effort is made to highlight previous studies conducted in the field of rural development. Topics treated include the concept of development and rural development, approaches and strategies to rural development and hindrances to effective rural development programmes in Nigeria.

The chapter opined the "Development theory" as the rationale for the establishment of River basin development authorities and System Theory as a guide to this study.

2.1.2 Development as a Conceptual Variable

In theory the concept of development is a normative concept which implies growth and change for the better; applicable to both rural and urban sectors of Nigeria. In practice however most of the physical and socio-economic development which has so for occurred in this country are disenable in the urban sector while only a few significant indices of such development are evident in the rural areas in spite of the successive rural development programmes of past regimes and governments .

There has been a lot literature on the concept of development since the 1950's and 1960's. However the main currents of these intellectual activities can be grouped into 2 broad categories. The first school is synonymous with the

modernization school and they perceive development as a desired state of affair to which all nations must aspire. This desired state in their view is characterized among others by a high level of modern science and technology, industrialization, economic growth measured mainly by gross domestic product and per capita income. By and large this school of thought views development as an extrapolation of what had already taken place in the countries of Western Europe and North America.

Thus any Third World Country that aspires to achieve development must follow the path already trodden by these "developed countries". This perspective analyses neither the role played by the imperial power in plundering the economies of their dependencies nor do they explain how the few urban centres in the dependencies served and still continue to serve as bridges for exploitation of the rural areas within the perspective rural-urban development gap is a natural phenomenon in the development process, and because of this narrow conception of development their prescribed solutions to the problem of development are merely sectoral rather than holistic this according to Andrew and Aminu led to 3 phenomena's.

(i) There is a deepening of the dependence of the post colonial states on their erstwhile colonial masters in their quest for development.

(ii) The rural-urban development gap is widening with unprecedented rapidity

(iii) There is preponderance of material poverty of the overwhelming majority and arrogance display of affluence by the few.

The second school of thought perceives development not only as continuing process but also in terms of the beneficiaries of development. Development to NFRI (1981) is "a continuing improvement in the capacity of people and their society to control and manipulate their physical environment as well as themselves for their own benefits and those of mankind".

Development here is conceived essentially in human terms for it concern attempts at the improvement or desirable changes in all aspects of human life economic, social, political, environmental or technological. Development therefore should not be conceived in terms of economic growth index rather development should be seen as a continuing and people centred endeavour by the governors and the governed aimed at improving the socio-economic political and cultural wellbeing and standard of living of each and every member of the community.

View from this angle development activity does not discriminate against any sector or group of person in the production and distribution of goods and services in society and it does not attempt to make any distinction between urban and rural areas Nyerere (1974) has warned that "one cannot have rural development as an extra-tagged on to the policies of the government". Rural development must be a description of the whole approach to development

Before now rural development is often equated with agricultural development on the ground that 70% of the people in Nigeria live in rural areas where the main economic activity is Agriculture and any effort to increase rural agricultural productivity means rural development and it has been said that up till 1976 Nigeria has no rural development programme, rather rural issues are summed under agricultural development or community development schemes.

According to Elekwa(1995) the problem of rural underdevelopment in Nigeria is partly attributable to the application of macro-economic model of large scale production. This macro-economic planning model has always argued in favour of existing industrial locations that would give external economics of large scale productions.

This theory considers it wise to invest in existing cities for the benefits of economics of large scale production hoping that development and benefits will trickle down the rural areas. In the simplest version of this theory there can be no long run problem of rural economic distress because competitive market forces will result in optimal spatial distribution of economic activity. Short run regional unemployment and declining incomes may results from changing demand factors for regional goods or from declining regional competitiveness. However according to this theory in the long run low unemployment and low incomes will either attract new investments to take advantage of profit opportunities offered by low cost factors of production or the unemployed will

immigrate to areas of greater opportunity and distressed areas will adjust to a lower level of economic activity.

As a result, new industries are located in existing cities and this aggravates city problems. In addition this type of sectoral planning and investments encourage the never ending flow of people from the rural areas into the cities to seek good jobs and better life. Equity and efficiency are not considered simultaneously hence there is "uneven development between the rural and urban areas".

The new and wider perspective of development is adopted by Dudley Seers, who sees development as not to achieve high growth rate of per Capita Gross National Product but to directly reduce poverty, unemployment and inequality. He posits that the concept is inevitably normative; that the universally acceptable aim is the realization of the potential of human personality and took a sweeping analysis of three elements, which are basic needs; job; and income distribution; the availability of which would translate to development.

The components of Basic Needs are food, shelter (clothing and housing), health care, education and other life sustaining variables. Seers, while reiterating on the job element, bemoaned joblessness stating that it is incompatible with self respect, especially for somebody who has been spending years at school, perhaps at university, preparing for an active role.

On the issue of income distribution, he asserts that the direct link between per capital Income and number living in poverty in income distribution. Seers argue for the need for equality to be considered an objective of development in its own right and see the prevailing level of inequality in society (especially developing countries) as objectionable and unethical. The general level of living must expand within a nation to the extent that absolute poverty (i.e. deprivation of life-sustaining goods), the degree of inequality in income distribution, the level of unemployment and the nature and quality of educational health and other social and cultural services have all improved.

Seers conceptualizes that a country's development is a function of what has been happening to three core issues of development - poverty; Unemployment; and Inequality – as postulated by him. To seers if all three of these have declined from high levels, then beyond doubt this has been a period of development for the society in question while the upward trend of these core issues negates 'development' even if per capital income doubled. Seers' thesis is very apt in the understanding of development as a multi-dimensional phenomenon and human oriented. The issues of Poverty, Unemployment and Inequality are the very definition of misery in any social system.

Dennis Goulet is another scholar that sees the concept of development in a wider perspective. He posits that development means obtaining the good life, and identified three elements of the good life, termed "core values" for a clear

understanding of development – life sustenance; self esteem; and freedom. These represent common goals sought by all individuals and societies.

Life sustenance is concerned with the ability to provide basic needs such as housing, clothing, food health care and minimum education. A major objective of development, therefore, must be to raise individuals and society as a whole out of primary poverty and to provide basic needs. Absence of basic needs is equated to underdevelopment; and therefore, a society is developed if they (basic needs) are adequately in supply.

Self Esteem dwells on the feeling of self-respect and independence. Development should entail having power and influence to conduct relations on equal terms. Self esteem depicts absence of feeling of external dominance which leads to inferior social and economic status.

Goulet sees freedom, as one of the core values, as freedom from servitude, emancipation from the evils of 'want ignorance and squalor's that people are more able to determine their own destiny. No person is free if he has no choice, imprisoned by living on the margin of subsistence with neither education nor skill. The advantage of material development is that it expands the range of human choice open to individuals and societies at large. Goulet's conceptualization sheds light on the fulcrum of development. Life sustenance as a core value of development stresses economic development given the fact that the great the ability shown by a society to provide food, shelter, and health care and so on, the more developed the society. On self esteem, the higher the

capacity of a society to relate on equal terms in the comity of nation, the more developed such society. Freedom encompasses political, economic and socio-cultural development which eschews any form of economic, political and social servitude; and any form of cul-de-sac in choice.

2.1.3 Concern for Rural Development

Over the years, considerable interest has been shown by people from all walks of life in the economic development or transformation of the rural landscape, both in developed and the less developed countries (LDCs). As a matter of fact, politicians and statesmen, administrators, civil servants, international organisations, foundations and research scientists(in the physical, applied and social sciences have shown increasing concerns that are now culminating in a crusade for solving the problems of rural economics. These concerns cover such fields as scientific, technological, socio cultural, psychological, political and economic aspects of rural development. In recognition of these universal concerns, the United Nations Organization and its apex or supporting establishments named the second development Decade, the 1970's as that of Rural Development.

2.1.4. Approaches to Rural Development

i. Modernization Approach

Modernization according to Ujo A.A (1994) is a total transformation of a traditional society into the types of technology and associated social

organization that characterized the advanced economically prosperous and relatively politically stable nation of the western world. One of the supporters of the modernization approach (Neil Smelser, 1963) developed a model of modernization based on the structural differentiation of institutions.

Smelser's model is concerned with the social transformation accompanying economic development and takes place through;

a) Modernization of technology
b) Commercialization of agriculture
c) The industrialization process and
d) Urbanization

ii. Transformation Approach

The transformation approach is aimed at transforming the rural areas through the introduction of programmes.(Ujo 1994) The Gezira scheme in Sudan and River Basin development programme in Nigeria is an example of the transformation approach. The main features of these programmes are:

1. Large scale irrigation scheme
2. Re-mechanization of production of long staple cash crops.
3. The scheme was geared towards market economy.

iii. Improvement Approach

This approach is aimed at a progressive improvement of agriculture through various forms of assistance. It does not involve changes in the land ownership or evolutional transformation of agriculture. (Ujo ibid)The World Bank is actively involved in this type of approach throughout developing countries.

According to the World Bank experts, this type of rural development strategy would provide the means to exploit the production reserves of 90% of Nigerian Farming operation. ADP were some of the project introduce and with this approval the projects were aimed at providing rural agricultural inputs and infrastructural services necessary to raise the quality of life in the rural areas.

iv. Mobilization Approach

Mobilization is the process of pulling together, harnessing, activating, actualizing and utilizing potential human and material resources, for the purpose of development. It is a process whereby human beings are made aware of the resources at their disposal and also motivated and energized to collectively utilize such resources for the improvement of their spiritual and material wellbeing. An example of mobilization approach is Operation to feed the Nation.(Ujo ibid).

v. The infrastructural approach to rural development:

In most developed countries, the commonest approach to rural development noted Wharton (1967) is the building of infrastructure i.e. physical capital, institutions or organisations which provides economic and social services. Among the most important of infrastructures are roads, communication networks, irrigation, storage facilities, market facilitates, research and extension institutions, schools and universities which train and turn out a variety of skilled agricultural workers.

a) This approach is explained by a number of considerations as there is a direct relationship between the building of roads and market facilities and expansion A fundamental re-strutting of rural space and settlement so as to improve the physical and social access of producers to vital resources.

b) The creation of new rural structure that would facilitate substantial re-investment of financial resources in the rural sectors.

c) Mobilization of farmers through effective organizational framework that will promote mass involvement in the development process.

d) Provision of appropriate technology for raising rural productivity and efficient utilization of resource.

e) Equalitarian provision of basic need such as food, housing, water supply, health service, etc.

f) Creation of efficient transport network for rural and urban areas.

g) Agricultural transformation to ensure massive food production and the supply of industrial raw materials.

But how effective is the infrastructural approach to rural development?

Olajuwon et al contends "the development experience of many less developed countries suggests that the infrastructure approach to rural development has many limitations "these includes the inadequacy of rural infrastructure, the lack of economic evaluation of infrastructural investments, inappropriate location of infrastructural facilities and emphasis on capital intensive infrastructures at the expense of capital extensive type. Consequently, within the rural sector there are generally no access roads to reach agricultural areas. Even where infrastructures such as roads, schools and hospital are constructed, their location is sometimes dictated by considerations other than efficiency and economic viability.

vi. **The Basic Needs Approach**,

This approach as argued by Dell (1979) and Streelen (1981) is predicated on the need for greater participation of the indigenous population in the production processes through greater use of the knowledge and technology they can control.

In a report captioned "what now: Another Development: Hammarsk Jold (1975) argues that the basic needs approach stresses such human factors as self

reliance, eradication of poverty, and gross inequalities, respect for the environment and Non renewable resources as well as effective and maximum utilization of all available and qualified human resources irrespective of gender and age bracket. In his development from below. Pitt (1976) views basic Needs framework as an approach through which the indigenous people make use of the resources they have to fashion out complex things that help to improve their general welfare.

Ekejiuba (1983) explains that basic Needs approach stresses total local community mobilization and popular participation in identifying, defining, promoting and executing projects as well as in defining values and needs that are dictated by the existential conditions of the target group. He furthermore stresses that the basic needs approach foster self reliance and is based on the need for structural transformation that results from group mobilization, participation and even distribution of the benefit of development. The approach support meaningful intervention in those genuine areas that will improve and make meaningful the lives of the target group.

2.1.5. Rationale for the establishment of River Basin Development Authorities in Nigeria

The establishment of River Basin Development Authorities in Nigeria is based on the Development theory of industrial model of growth and the view that development involves a transformation of a traditional or pre-capitalist Social formation to a capitalist Social formation with the type of technology and

Social organisation that characterised the advanced industrial and post industrial Nations. Details of such views on development can be found in the works of W.W Rostow and Nash. The theory implies that 3rd world countries which are linked to the world capitalist system through colonialism and since independence through loans and Multi-National companies and the growing indigenous capitalist should adapt the technology of the developed capitalist countries like Japan and that this will make for their economic growth. Several Scholars have in recent time criticised the views of development implicit in the classical theories.

Another school of the development theory is the diffusion" model which place heavy emphasis on the direct transfer of agricultural technology from advanced countries of the west to the less developed countries of the third world. The diffusion model assumes that farmers in 3rd world countries can raise their productivity quite substantially by allocating their resources more carefully and more efficiently and by adopting agricultural technology from advance countries. Progress according to this view comes about through the spread of "modernism" to backward areas (Chilcote 1981). Thus to Adelakun (1996)Rural Development becomes a dimension of the expansion of capitalism into the rural sector, not only in the forms of capitalist relations of production but also in pursuit of direct transformation of the mode of production. The problem of Rural under Development is viewed mainly in terms of the

traditionalism, illiteracy conservativeness and even laziness of the rural peasants.

Consequently the solution is sought in the radical transformation of the rural peasants. This takes the form of State intervention in alliance with international agencies like the World Bank IMF, IFAD etc and a new phase of incorporation of rural Africa into the world capitalist system, while this process further entrenched the dependant status of most neo-colonial African States; it effects fundamental changes in the Social structure of the Agrarian population. The strategy of Rural Development that is adopted is the capital – intensive one which requires initial heavy capital outlay to procure, sophisticated, irrigation equipment, tractors and other machines, fertilizers, pesticides and herbicides as well as the recruitment of foreign experts "to provide managerial and technical services.

Ake (1978) argued that classical development theories and processes help to legitimize dependence especially economic dependence of developing countries on capitalism centres. He noted that the theory conceptualize development essentially as a process of becoming more like the industrialized countries only in so far as they can acquire some of the specific goods and specific skills which they monopolize. Once a developing country accepts classical approach to development, it comes to regard economic dependence as inevitable and even desirable.

In view of the ever widening gap between these two sectors many researches were conducted and many literatures published on the problems and recommendations towards enhanced rural development initiatives in Nigeria. According to Chukwu(1988) rural development had three dimensions in Nigeria which fundamentally affect and determine the final outcome of projects:-

Institutional- these include who decides, who act and who is affected by the rural development programmes.

Spatial dimension- where does action takes place and who does it affects. Sectoral dimension- is rural development efforts sectoral or multi-sectoral covering all aspect of human life. To Chukwu, these three dimensions of institutional, spatial, and sectoral aspect from the basis of success determine whether rural development is a responsibility of which tier of government, with which policy, resources, participation and encompassing all aspect of life such as education, health, housing an d empowerment or restricted to agricultural development and food production.

Chukwu further analysed past rural development efforts in Nigeria under four categories-

General Support programmes: This programmes promoted agricultural research and extension services, infrastructural support, inputs supply and agriculture finance and marketing. Research institutes, and farm services centres were established. People and community banks were also introduces so also were commodity and marketing boards, but their impact had been inadequate

and fragmented as research findings were not disseminated and practicalised, and a feasible farming system also prove difficult to the Nigerian farmers.

Direct production: Plantations, ranches, diaries and food processing companies were established by federal and utilise abundant resources in the rural areas. However, most of these enterprises got killed by problems militating the entire public sector such as inadequate funding from the government, undue interference, bad management, fraud, faulty goal specification and ever changing priorities of successive regimes.

Area Development Programmes: In 1975, River basins development authorities were established by the federal government with heavy drainage channels, feeder roads irrigation farms and even large scale evacuation and resettlement of farmers were undertaking by these authorities in addition to various agricultural supports services such as seed multiplication, crop improvement and consultancy service, provided to the farmers. The results however, did not justify the huge investments made on the projects which culminated to the establishment of agriculture development projects in 1982 with the assistance of the word bank to concentrate resources in a few key activities in direct farm production services of inputs delivery services and rural water and roads.

The success and limitation of the agriculture development projects had been a matter of debate among academics and media alike.

Mobilisation programmes: These are programmes introduced in addition to specific sectoral programmes designed to mobilise people for enhanced agricultural development. The mobilisation programmes include National Accelerated food production programmes, (1972) operation feed the nation (1975) green revolution (1982) and go back to the land (1985). Further to it mass mobilization for social and economic recovery (MAMSER) and National Directorate of Employment (NDE) was also created for both rural and urban sectors. To Chukwu, these mobilization programmes lacks any substantive operational goal and target and remain largely urban based.

In Nigeria and indeed in many developing countries, the neglect in the area of provision of infrastructural to rural areas to many scholars can be traced to colonial policies which created dichotomy between rural and urban areas. Most of the physical infrastructural put in place were in the colonial Headquarters and raw-materials centres for the smooth exploitation and export of the colonies vast resources to the metropolitan colonials towns.

According to lawal (1986) there are two models of rural development in use in Nigeria Viz:-

(i) Management Model:- this is the model in which the dominant role of rural development is vested in the few bureaucrats, Who formulate and implement rural development programmes with the assistance of few handful of experts both of whom are socially remote from the people.

(ii) Mobilization Model:- This models insist on the popular participation of rural people in their development efforts. It tends to restrict the role of public officers to the policy making process.

According to Ikeji (2002) two strategies has characterised rural development programmes in Nigeria viz:- Government led strategy and community led strategy.

(a) Government Led Strategy:- in Government led strategy the guiding philosophy and practice is the one which first and foremost views rural dwellers as being incapable of rational policy decision making and effectively implementing programmes of development on account of perceived ignorance and conservative disposition of the rural man. Secondly it holds the sheer magnitude and lumpiness of cost of providing and maintaining rural infrastructure resources that are usually beyond the reach of the rural dwellers and thirdly weighs the Social advantage factor in which the benefits accruing to the entire society from a range of infrastructure exceeds those accruing to potential individual sponsors. Under the above circumstances the government assumes leadership role and acts as the maker and implementer of rural dev policies and programmes with the use of the state structures and agencies. Implementation of rural development policies becomes an extension of public Administration and policy outcomes becomes a function of the administrative capability of State agencies. Most of the rural development programmes in Nigeria had been pursued on this strategy path. Evidence of man problems and

poor performance associated with Government led policy implementation strategy could be found in a number of cross – cultural environments examples being in South Korea and Tanzania. The South Korea experience with Government led implementing strategy reported that decisions are rarely subject bargaining and negotiation among autonomous actors rather than reflect the will and desire of the leadership in an elaborate chain of command and policy process in almost all cases was an affair of the top political elite and their staff to the exclusion of the people for whom the policies and programmes are ostensibly meant.

Tanzania's Ujamaa project built mainly on Government led strategy suffered similar set back largely because its conception and implementation was based on the ruling elites perception of the Tanzanian problem and its solutions. Ergas (1980: 398) illustrates and this point succinctly: Uma lele has this to say on the project ; programmes for the villages were prepared, priorities worked out, budgets allocated and personnel deployed by the sectoral Ministries in Dar –es – salaam – decisions took and ordinately long time to reach resource endowments and environmental factors, consequently farmer (rural) initiative and co-operation were often strangled. Similar problems were faced by Kenya in its bid to pursue rural development through government led strategy. The special rural development programme was pursued without meaningful involvement of the local people reports that the rural people were neither

consulted during the programme planning nor informed in advance of programme implementation.

The above revelations underline the inherent weakness of the Government led or Top-Bottom strategy and underscore the need to move towards a model that diminishes its weakness and advances its strength.

(b) Community Led Strategy otherwise known as mass mobilization modelled as it's over – riding principle "mass participation" or "participation by all" and is anchored on co-operative efforts of the people with without external stimuli.

This strategy requires that rural development programme be conceived, planned, chosen and executed primarily by the community and for the benefit of the community. Community led strategy in rural development is not new in Nigeria although reports of it are scanty. The community led strategy of rural development is also be devilled by array of problems such as inadequacy of organisation from government and lack of proper integration of Local self help or community efforts into wider governments rural development framework and the fact that community self help efforts have been characterised by haphazard, uncoordinated and laissez faire pursuits leading to wasteful duplication of scarce energies and resources.

(c) Integrative Strategy: - The major element in this approach is that rural development is viewed as a joint business of the government on one hand and the community on the other. This is to say that government goes into real

partnership with the people that is planning and working with and for the people. Both the government and the community are involved in policy making, policy implementation, policy monitoring and evaluation. The utility of this approach had long been recognized as an essential ingredient to the envisaged success of development policies because it has become imperative that community involvement in rural development policy process should ideally feature at every stage. To Najim, Nigeria operated management model which explain why most of the past rural development programmes encountered problems.

2.1.6 Critique of River Basin Development Authorities (RBDAS)

Various studies conducted on the activities of RBDAs and other sister agricultural Development Projects has criticizes RBDAs for failing to substantially transform rural areas and increase food production in Nigeria.

Olatunbosun (1975) traces rural backwardness to colonial policies saying there is little difference between rural oriented economic policies before and after independence in Nigeria. Their gap is ever widening he maintained that "despite the potential strength achieved through political independence the strategy of development policies pursued by the Nigerians who took control of the government from the colonial administrators continue to resemble in many ways those of the colonialist. Consequently, the living condition of the rural people has virtually remained unaffected by the development efforts.

Mohammed and Shehu(1986) praises various rural development programmes introduced in Nigeria but faulted the process adapted in the planning and execution of the projects saying that most of these projects are political exercise meant to reward government protégés as a result of which they are poorly planned and executed.

To Wapnuk "most of the projects do not take the interest and opinion of farmers into considerations" farmers are not consulted on matters that concern their productive capacities. In his research "The place and impact of River Basin Development Authorises on Nigeria's development". Modo (1986) concluded that the RBDAs are so bedevilled by Resettlement problems, over mechanization, high operational cost, and excessive dependence on imported machinery most of which lack spare parts that they can hardly be effective food basket of the nation.

Yahaya (2003) posited that the RBDA's have brought about certain positive development in the lives of the target population by way of agricultural and infrastructural development but that the design of the irrigation projects certainly shows that the planners, contractors and government officials by passed the beneficiary of the project, which resulted in the catalogue of devastating outcomes. The projects should not only be aimed at economic gains but also at social benefits. Thus development paradigms should be designed along socio-economic, political and cultural perspective to development.

Akindele et al in their study of Owenna River Basin Development authorises concluded that the RBDA have failed to actually attain the desired objectives. This is attributed to the factors of political environment and actions of political actors which have been incompatible with the management and organizational goals of the authorities since their establishments.

Rural Nigeria is lacking in basic amenities like safe drinking water, good access roads, health delivery services, electricity, schools, etc. Their very means of survival, which is agriculture, is in critical condition. Majority of the rural inhabitants in Nigeria are farmers, some of whom combined farming with rearing and hunting. The neglect of agriculture by the government in the wake of oil boom had exposed many rural families to the danger of losing their means of livelihood. However, people have to survive and when there is no tangible means of survival, they often resort to migration.

The consequences of rural-urban drift are seen in the high rate of criminal activities in our major cities, population explosion, and emergence of ghettos, to mention but a few. The negative impact of this development on the urban life is appreciated against the back drop of the poor state of the physical development in our cities and towns, which lacked basic amenities to support their people. The influx of rural migrants often leads to over stretching of the existing urban infrastructures.

The establishment of the River Basin Development Authorities (RBDAs) in 1976 was therefore, intended to stimulate rural development through increase

agricultural productivity and provision of rural infrastructures to correct the imbalance in development between rural and urban areas. Many scholars have written on the River Basin Development Authorities (RBDAs) since its inception. In our effort to review the literature on the RBDAs, we examined the views of some of these writers on the subject with emphasis on the functions, performance and impact of the scheme between 1976 and 1985.

Famoriyo (1988) observed that the River Basin Development Authorities (RBDAs) were conceived in Nigeria as a development strategy anticipated resulting in the development of irrigation schemes, which would benefit rural farmers directly and improve supply of portable water to the rural areas in general. In its original conception, the functions of the River Basin Development Authorities (RBDAs) encompassed comprehensive development of surface and subterranean water, constriction of dams, development of irrigation for direct crops production, building of dams, reservoirs and boreholes, development of fisheries, possessing of crops and livestock as well as re-settlement of persons displaced due to project locations.

The River Basin Development scheme was therefore an agricultural and rural development project. It was conceived as a problem-solving approach to the incidence of food crises, rural poverty, deprivation and alienation; hence it was expected to improve the condition of the rural populace. The objective were firstly, to increase rural productivity and income and secondly, to diversify the rural economy and improve the quality of life of the rural population. This

approach recognizes the inter-relationship between agriculture and the rural economy as well as the national economy. In the context of the RBDA strategy, rural development is seen as the comprehensive development of the rural areas. Olumese (1988) stated that whereas before the 1970s, formal government intervention in irrigation activities in Nigeria was limited to small schemes mostly along the River Niger, a number of ambitious and large-scale scheme were embarked upon following the establishment of the River Basin Development Authorities (RBDAs) in 1976. These included the Bakolori and Goronyo irrigation dams on the Sokoto-Rima Basin Development Authority (SRBDA); the Kano River Project; and the Chad irrigation project amongst others. These projects together accounted for over 146,000 hectares of irrigable land. By 1984, well over 90,000 farmers have been assisted by the River Basin Development Authorities (RBDAs) to crop a total of 188,194 hectares. This produced a total of 524,859 tones of maize, rice, wheat, millet, cowpea, sorghum and vegetables valued at over N213, 559,740.00. Farmers were usually assisted in the areas of tractorization, provision of inputs such as improved seeds, herbicides, fertilizer and water for irrigation.

Other highlights of the achievements of the RBDAs according to Olumese (1988) were: The design and construction of many small and medium earth dams for rural water supply, irrigation, fishery and livestock and the establishment of well over 1,200 boreholes in rural areas across the country for

the usually disadvantaged communities. The borehole programme has helped in the provision of water for livestock, particularly in the arid north.

The construction of over 4,000km of new feeder roads up to 1985, while quite a large number of others were maintained in various Local Government Areas nation-wide.

Of the 250,000 hectares projected to come under irrigated agriculture during the Fourth National Development Plan, only 83,305 hectares were developed by the River Basin Development Authorities (RBDAs). Of this, 75,750 hectares representing 92% were attributed to the Chad Basin, Hadejia Jama'are and Sokoto Rima Basin Authorities, which were the first to be established in the country.

The River Basin Development Authorities (RBDAs) have devoted the greater proportion of their investment capital to the development of infrastructures including designs, studies and construction of irrigation dams, reservoirs and canals as well as office accommodation and staff quarters. However, compared to the potentials, which various feasibility studies have shown to exist in the country, very little of the peasant land under cultivation could be directly attributed to irrigation infrastructures provided by the RBDAs. Lack of qualified technical manpower, inadequate funding and organizational constraints have frustrated the realization of the full potentials of the RBDAs and by extension their set objectives.

Adeniyi and Titiola (1987) described the river basin development authority's (RBDAs) as one of the most important programmes in Nigeria during the 1980s with agriculture and rural development focus. However, in their opinion, despite the huge amount of national resources devoted to the achievement of the RBDAs programmes, it has not satisfactorily performed the traditional roles expected of it such as adequate provision.

In the light of the above, most of these scholars advocated that small farmers should be made the centre-piece of Nigeria food production efforts while RBDAs should supplement their efforts. RBDAs should relate with the peasant and should encourage the use indigenous tools while they work with technologists to replace older tools with better powered and more efficient, low cost tools.

This study is primarily concerned with portraying the present condition in the SRRBDA areas and the effect of flood and soil erosion to the successful implementation of SRRBDA activities 35 years after it establishment. This contrast with other past relevant similar literatures because the effect of flooding and soil erosion in the SRRBDA areas were not giving due attention it deserved. Hundreds of lives were lost annually and thousands of farmlands damaged as a result of flooding. In 2010 alone 95 villages were submerged and billions of Naira worth of properties were lost as a result of flooding from Goronyo dam (SRRBDA project).

2.2. Theoretical Frame Work

David Easton's system theory was adopted to test the relationship between the level of performance achieved by SRRBDA and the corresponding impact on the lives of the rural population in the project catchment areas. The study asserts that the major concepts of David Easton's system model can be applied to capture the relationship between SRRBDA performance and impact on the target population.

The system Theory arose out of the need to provide explanations on aspects of workings of organization not covered by the Traditional classical and other theories of administration. The system as a concept is derived from the biological sciences meaning a whole with interrelated parts. Ogunbaremu (2004) views the system approach as exhibiting features of holism or synergy hierarchy of parts which work harmoniously for the attainment of goals of the higher system and are equally affected by the alteration in one of the parts.

The model uses as its major unit of analysis the political system in which political life is viewed as a system of behaviour, political systems are defined by Easton as a set of interactions, abstracted from the totality of social behaviour, through which values are authoritatively allocated for a society (Conway and feigert, 1976). In this definition, there are a number of assumptions that lend direction to systems analysis. For one, the emphasis is on interaction as a variable.

Interaction may take place between individual actors, institutions or actors and institutions collectively interacting with others.

Easton recognized that there was no single way of conceptualizing human behaviour, which could properly encompass the variety and behaviour therefore, must be quite general and broad in nature.

A system is presumed to be analytically distinct from its environment. Although an analytical distinction is made between the system and its environment, the system is open in varying degrees to influences from the environment. Indeed, the nature of environmental influences and the ways in which the system responds to them is one of Easton's major concerns. In separating a system from its environment, however, we refer symbolically to the system boundary. The nature of systematic boundaries, how they are defined and their degree of flexibility or rigidity are major problems facing systems theorists.

If we assume that systems are susceptible to varying degrees of influence from the environment, and that systems may affect their surroundings, we must make reference to the inputs, outputs and feedback variables. A political system does not exist unto itself.

Surrounded as it were by physical, cultural, and economic environments, and by other systems, it must interact with these potential sources of influence.

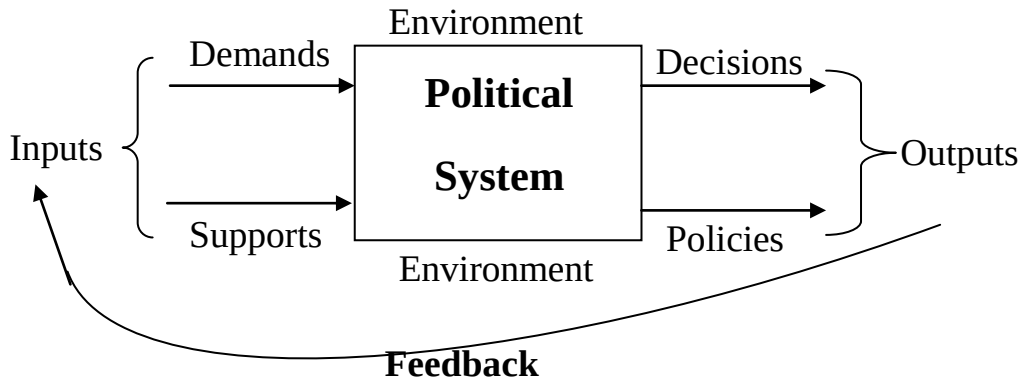
Inputs from the environment and from the system are demand or support inputs. Without inputs, the system can neither work nor sustain itself. An analogy may be made to the human biological system. It is difficult for a person to survive fro long without such basic physical supports of food, clothing and shelter, which may be needed in varying degrees as determined by the physical environment and sometimes by the cultural one. Intangible supports may be needed such as affection, respect and acceptance by others.

Demands are also necessary as they lend purpose and direction to the system. Demands are generally concerned with the allocation of resources, materials or positions. Demands are made by individuals and groups within or without the system who are likely to have different views on how resources should be allocated. However, there is never any assurance that demands would be met on one for one ratio to outputs or allocation of resources. In other words, it is less likely that demand input x will result in output x. In Estonian model, system maintenance or survival is a primary goal, one that supersedes all others.

In discussing demand or support inputs, we therefore, consider such additional variables as the substance, source, intensity and quantity of demands. Because these variables are related to the demands and supports, they are indicative of the ability and capacity of a system to modulate stress, which in turn will suggest the ability of the system to perform its tasks and survive.

The question of system equilibrium and survival are implicit in all systems theory. Also crucial to the consideration of input/output analysis is the learning and correction capacity of a system, which is referred to as feedback. System outputs or decisions do not automatically solve problems. Indeed, they may create problems that were not noticed during an initial decision-making. Table 2.5 illustrates the functional mechanism of David Easton's systems model.

Figure 1: The Functional Mechanism of David Easton's System Model.



Sources: "Easton, David (1965) a system analysis of political life New York p32.

Sorkaa s(2007) affirms that the theory view organisation as having parts closely related and linked to each other and having a give and take relationship among the parts working to ensure stability of the organisation. As a consequence the parts carry out functions efficiently and effectively to ensure continuity and survival of the system. The theory further implies that the environment has a crucial role in determining organisational performances. It

seeks to find out which aspects of the social system influences organisational performance overtime thereby enhancing the ability to account for change and development.

David Easton who adopted system theory to administration in 1953 conceived that a political system could be seen as a delimited (with boundaries) and changing.

The main assumptions of system theory were:

(a) Inputs – The system theory assumes that there exist inputs made in the organisation from the environment and sometimes from within the organisation. Here the demand for the provision of certain facilities by the public would be explained as inputs into the government or its agencies. It could also mean the public making inputs in terms of advice for government agency to succeed in achieving set goals. Provision of resources by government for execution of planned programmes is also considered as inputs.

(b) Conversion Process – The system theory believes that inputs made into a organisation need to be processed and converted as outputs. The manner in which the conversion process responds to the inputs depends on previous antecedence and inclination to follow the antecedence. The central issue here is the management willingness to commit allocated resources to planned programmes.

(c) Output – This connotes rendering services or executing desired programmes. In public organisation it may also involve the decision and policies made by the Government.

(d) Feedback – The system theory assumes that the organisational system would send back information into the environment and also receive further inputs as response from the environment. Thus execution of programme or provision of certain services by the organisation based on demand (input) from the environment would further receive (feedback) responses in term of acceptance, rejection or demand for improvement from the environment. This process of inputs ⟶ conversion ⟶output ⟶ feedback could best be illustrated diagrammatically as follows:

Figure 2: Systems Model Analysis



Source "Easton, David (1965) A system Analysis of political life New York S.32

2.2.1 Application of System Model to the Study

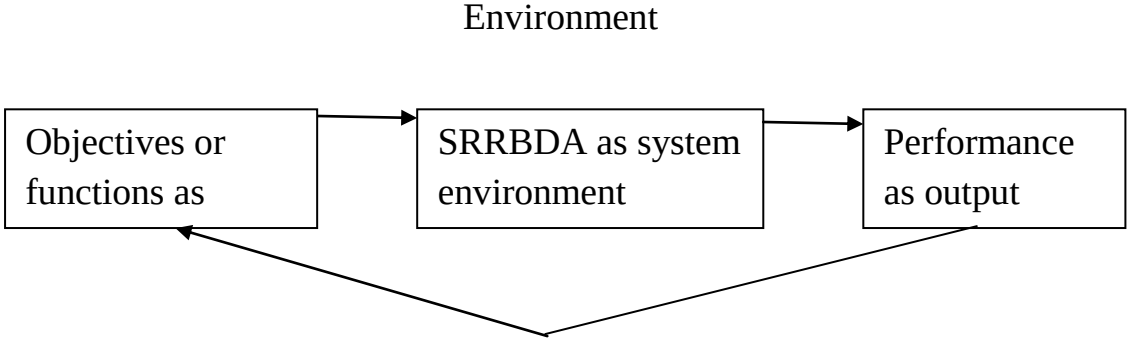
The system model offers a blueprint for the description and analysis of the performance and impact of SRRBDA and proposes explanations for achievements and constraints faced by the authority. The SRRBDA is established to achieve specific objectives of increasing agricultural output and

enhance the living standard of its target population which constitute the societal demand on the authority. The SRRBDA as a system tries to justify its existence by putting in programmes to translate its objectives into physical results. In doing so the authority has to contend with the influence of its physical, cultural and economic environment in terms of community opposition, management problems, environmental and ecological problems and insufficient funding.

The output of the system, which is a direct response to the demand inputs by the society, is represented by the performance of SRRBDA in the areas of irrigation farming, income generation, and provision of access roads, portable water, schools and health centres.

Fundamental to the Demand/Input/output analysis is the feedback which provides information on the effectiveness or otherwise to the performance of the SRRBDA which acts as a new input on the system. Feedback can have several results which may provide increased or altered demands in which the process may repeat cyclically as illustrated below:

Figure 3: Application of System Analysis on SRRBDA



Source – adopted from Ogwu L (An Assessment of lower River Benue RBDA and Sokoto SRRBDA, PhD thesis ABU 2009).

The impact analysis may provide information that the performance of SRRBDA have impacted positively on the standard of living of its target population and this would serve as support for the authority and its programme or on the other hand feedback analysis may reveal constraints or failures to meet authority's objectives which would then call for corrective measures through suggestions and recommendations at the end of the work for enhanced performance by the authority.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

Research methodology refers to the general framework that guides the researcher in his choice of techniques of data collection and analysis. In this chapter we highlighted the various techniques and method used for the collection and analysis of the research data for the purpose of testing the Hypotheses and arriving at conclusions. Therefore the chapter gave insight to the research design, population of study, sampling and sampling procedure, instruments of data collection, questionnaire construction and administration and statistical tool used for testing the hypotheses, decision rule and research conclusions.

3.2 Type of Data used for the Study

Two types of data were used i.e. primary and secondary data.

3.2.1 Primary Data

The primary data for the study were obtained through questionnaire and oral interview. Through these sources extensive data were generated on the Farmer's views on measures taken by the authority to raise irrigation farming and socio economic condition of its programme beneficiaries. The interview technique ensured generating extensive information that cannot be derived from

the questionnaire technique and allows for the expression of wide range of opinions.

The primary data helped to cross check information provided by the secondary data through official publications and records.

3.2.2 Secondary Data

The secondary data used for the study involved relevant literatures on rural development in Nigeria and other developing countries as well as official records of the activities of SRRBDA and other rural and agricultural outfits engaged in the research and development of rural areas.

The materials were obtained from Agricultural Research Institutes, University Libraries, National and States Libraries, ADP's Offices, SRRBDA Headquarters and States and Area offices etc.

The literature provided the necessary data which informed the discussions on the past rural development programmes in Nigeria, their successes and limitations and the activities and operations of SRRBDA, ADP's and RBDA's in Nigeria.

This provided the study with standards and performance indicators against which the operations of SRRBDA and their impact on the quality of rural lives were analysed.

Newspapers, magazines, textbooks, gazettes and journals were consulted, all of which help to broaden the general perception and understanding about the subject of study.

Governments files and other classified documents which contained official reports, correspondences, policy papers, and statistics pertaining to the establishment functions and operation of SRRBDA and other RBDA's were consulted and were valuable for the general understanding of the operations of SRRBDA and helped to elucidate information which were either forgotten or overlooked at the questionnaire or oral interview levels.

3.2.3 Oral Interview

Oral interview techniques was another source of data used for this study where face to face interview were conducted with some management staff of the Sokoto Rima River Basin Development Authority as well as some members of SRRBDA project communities which included community or village heads and group leaders of various associations. Through the oral interview it was possible to have interactive sessions with opinion leaders.

Two methods of questioning were used in the oral interview schedules as follows:

a) Closed ended questions – questions with alternative responses (yes/No)

b) Open ended questions – questions with unlimited answers where respondents were free to express their view on the subject matter.

The interview technique allowed the respondents to say whatever they wish in response to question

The informants were usually not restricted when responding to a question, but when an informant digressed to an irrelevant issue, he/she was politely redirected by an appropriate question.

3.2.4 Observation and Inspection

Another method through which primary data were collected for the study was through observation and physical inspection of SRRBDA projects sites. Here the researcher visited Goronyo, Bakolori and Shagari Dams and inspected Dams reservoir sites where most of the irrigation activities are being carried out. Similarly visits were undertaken to 2010 flood sites where thousands of houses and farmlands were destroyed by over flooding from Goronyo Dam.

Explanations and clarifications were sought from SRRBDA officials at site and Headquarters. And through this, huge information were derived on the basis of which the validity or otherwise of the research hypotheses were tested.

The observation technique provided the researcher with the opportunity to capture the human conduct on the activities of the SRRBDA as they actually happened and to have a more graphic description of rural social life that cannot

be obtained through other sources. In this direction the primary data obtained through the observation technique portrayed the human, natural and social realities of the SRRBDA operations and its impact on the benefiting communities which gave more credibility and validity to the research findings and conclusions.

3.3 Sampling

Sampling is the process of selecting a number of individuals for a study in such a way that the individuals represent the larger group from which they were selected (Udofia 2005). The selected individuals form the sample while the larger group is the population.

Sample selection was carried out in a way that gave equal chance to every member of the population. The ability to represent the selected sample determined the degree to which the results are generalized.

3.3.1 Sampling Technique The Sampling technique adapted was purposive, random and stratified. 15 villages were randomly selected across River Rima, River Sokoto and Shagari dam. The villages selected were stratified into8 local government areas and purposively done to ensure SRRBDA presence. The choice of the villages was informed by the following

a) They represented communities with SRRBDA presence.

b) The location of the communities provided good examples of geographical spread of the catchments areas of SRRBDA as they are located in 8 Local Government areas spread over the State.

c) They were rural communities where the activities of SRRBDA were expected to lead to the Socio-economic transformation in their areas.

3.3.2 Population of Study

According to statistics from National Population Commission, the population of the 8 Local Governments covered by SRRBDA is about 1,117,889 people, while the population of the 15 villages within the irrigation areas chosen for this research is about 308,766 people (NPC 2012).

3.3.3 Sample Size

Udofia (2005) suggest the following formula in determining a research sample size

$$N = \frac{n}{1 + N(e)^2}$$

n = sample size
N = Total population --- 308,766
E = Degree of error (0.5%)

$$N = \frac{308,766}{1 + 308,000\ (0.05)^2}$$

$$= \frac{308,766}{1 + 308,000\ (0.0025)^2}$$

$$= \frac{308,766}{1 + 770\ .0025}$$

= 400 (Estimation)

3.4 Administration of Questionnaire

The primary Data for the study were collected through questionnaire.

Two sets of questionnaires were designed and administered to two sets of respondents namely.

The officials of SRRBDA b) The SRRBDA project communities who were the target group and beneficiaries of the Authorities activities. A translated version of the questionnaire in Hausa was prepared and administered on those who do not understand English but can read and understand the indigenous language Hausa.

The first set of questionnaire was prepared to obtain information from project staff and officials on what are the successes and limitations and their own

The second set of questionnaire was designed to elicit the opinion of the project beneficiaries in SRRDBA catchment areas on their expectations from SRRBDA Vis – a Vis the actual service delivery and their assessment of the impact of the project on the Socio-Economic development of their areas.

The questionnaires were distributed within the project communities depending on the population of the villages as follows:

Table 3.1: Distribution of Questionnaires according to 15 villages

S/NO	NAME OF VILLAGE	L/GOVT AREA	NO OF QUESTIONNAIRE
1	Kagara	Goronyo	30
2	Taloka	Goronyo	20
3	Goronyo	Goronyo	30
4	Wurno	Wurno	30
5	Lugu	Wurno	20
6	Tsamaye	Sabon Birni	30
7.	Kwalkwalawa	Wammakko	20
8.	Wamakko	Wamakko	30
9.	Gidan Mutume	Kware	20
10	Dunguji	Kware	20
11.	Rugga Liman	Kware	20
12.	Gidan hakimi	Gada	30
13.	Kiri	Gada	20
14.	Gandi	Rabah	30
15.	Gangam	Shagari	30
16	SRRBDA	H/Qtrs	20
	Total		**400**

3.5 Methods of Data Presentation and Analysis

The study employed descriptive statistics technique of Pearson coefficient correlation in the presentation and analysis of the research data. The research data from the primary and secondary sources were subjected to the task of classifying and synthesizing the information to fit into sub-problems which

were subsumed in the research hypotheses. Information found to be irrelevant to the research problem were discarded.

The analysis and discussions of the findings of the study were organised chronologically from 2005 to 2010. SRRBDA activities from 1976 to 2004 were mentioned for guidance. The research hypotheses were each treated as a theme or issue for presentation, discussion and analysis. The analysis centred on the performance and activities of SRRBDA projects in the study areas which sought to answer the research questions.

The research hypotheses were analysed using cumulative percentage analysis and Pearson correlation coefficient. Attempts were made to highlight the limitations to the successful implementation of SRRBDA programmes.

CHAPTER FOUR

HISTORICAL BACKGROUND AND ACHIEVEMENTS OF SOKOTO RIMA RIVER BASIN DEVELOPMENT AUTHORITY

4.1 Introduction

The Sokoto Rima Basin is in the North West of Nigeria R.K Udo locates the basin between latitude 11 ^{0}and 16^0 north and longitude 4^0 and 8^0 east. Udo' geographical description suggests that the basin encloses most of the territories occupied by Kebbi, Zamfara, Gobir and Sokoto. In addition, A.R Augi says that the basin has historically extended as far as north as the Southern edge of the plateau of Azbin and south wards to the valley of the River Niger including as well Kwanni and Zoma. He maintained that the Rima River is a tributary of the Niger. It flows from the area of Gobir in the east to the River Maradi in the North east. In the south east it flows into the streams of Rivers Bunsuru and Gagare in the Zamfara territory. It flows into the sources of Rivers Sokoto and Zamfara respectively. In the west, it flows into River Kebbi, Dan Zaki and Gulbinka.

Last (1989) defines the region as an area inhabited by the Hausa speaking people. But A.R Augi's study shows that historically the Hausa speaking people were not the only inhabitants of the basin because other ethnic groups like Taureg, Dandawa and Fulani had been living in the basin long before the 19th century.

According to Swindle (1986)Sokoto Rima basin is ecologically one of the most marginal regions for agriculture in the Nigeria and has divided the basin into 3 physiographic regions:-

(i) the upland or high plain of the east and the south east

(ii) the Sokoto plain of the north and centre and

(iii) the riverine regions of the Niger and lower Rima valleys

The Rima river is located on the sediment rocks 2 on 2 running from Sabon-Birnin through Sokoto, Argungu, Birnin Kebbi, Bunza and empties into the river is about 485 km. The longitudinal gradient of the rive course is about 0.035%. The general trend of annual rainfall distribution is one of greater rainfall in the south (1.008 mm) with an onset of the rain around April while further North Sokoto town has an average of 740 mm rain which drop to 658 mm at the Northern edge of close settled zone where the rain did not usually start until June and in some years finish by mid September.

Agriculture in the Sokoto plain is dependent on local rainfall during the wet season but cultivation of the flood plains (Fadama) is related to rainfall and run off in the upper Sokoto Rima basin.

Sokoto state is endowed with land and other resources that support the development of all facets of agriculture, ranging from crops, livestock, fisheries and forestry among others.

The state has 2 million hectares of arable land out of which 1 million hectares is cultivated under rainfall condition, again, there are 425,000 hectares

of irrigable land out of which 225,000 hectares are of high potential, however out of this total, only 60,000 hectares is now under various types of irrigation. Millet, sorghum, cowpea etc are grown under rainfall condition while garlic, onions, tomatoes dominate dry season crops. Currently, agriculture sector employs over 90% of the workforce in the State. Inspite of this effort, the level of production across the agricultural sector in the State has been generally low.

4.2 History of Sokoto Rima River Basin Development Authority (SRRBDA)

The Sokoto Rima River Basin Development Authority (SRRBDA) is a parastatal of the Federal Ministry of Agriculture, Water resources and Rural Development established by the former Military Government under Decree Number 32 of 1973 and continued in being by Decree Number 25 of 1976 which also brought into existence ten other River Basin Development Authorities. The Federal Military Government modified and increased the scope of RBDA's activities and power by Decree Number 87 of 1979, which was further amended by Act No.7 of 1981 which supersedes all previous Decree in respect of the Rima Basin Development Authority.

The area of jurisdiction of the authority covers the whole of Sokoto state and the Northern part of Kaduna State (Kastina Emirate). The project covers an estimated land area of 116.134 km. This coincides with the catchment area of the Sokoto and Rivers Bunsuru, Gagare, Gawon Gulbi, Zamfara and Kass Wulas, the area South West of Sokoto drained by the River Niger. The

development of the Sokoto Rima Basin development Authority as a network of irrigation projects was first envisaged by the Food and Agricultural Organization (FAO) in report published in 1965.

By 1969 a comprehensive plan for the SRRBDA was put in place. Although, this plan did not take off immediately, the concept of an integrated River Basin Development became pronounced in the allocations made for irrigation development in the Nigeria's third national development plan 1975-1980. In 1973 Nigeria established the first two River Basin Development Authorities, Sokoto Rima Basin and the Chad Basin. Thus, the establishment of the River Basin Development Authorities was borne out of the desire of the federal military government to enhance agricultural production and accelerate rural development in Nigeria through water resources development. The scheme apart from aiming at improving irrigation, agriculture was also expected to serve as a veritable vehicle for rural development. In this respect the River Basin Development Authorities (RBDA) were expected to achieve among other things improvement in the quality and standard of living of the rural population. The RBDA were to undertake large scale irrigation agriculture to improve the quality, value and nutrition balance of rural food intake and also provide services that would directly affect the standard and quality of rural life such as improved rural health services, employment opportunities, good housing, increased incomes as well as provision of good drinking water, access roads, electricity and education.

The strategy of River Basin Development Authorities as agents of rural development in Nigeria was therefore, to improve the productivity and reliability of food production through large scale irrigation agriculture and enhance rural infrastructural development in order to provide a more even geographical spread of physical development in the rural areas of the country. The effect of this development was among other things, expected to reverse the trend towards rural-urban drift through making positive impacts on the quality of life at the grassroots level.

4.3 Establishment and Function

The Sokoto-Rima Basin Development Authority (SRRBDA) was established by Decree No 27 of 1973 and became operational in April 1994. SRRBDA remained in existence by the time Decree No 25 of 1996 was promulgated which created ten other River Basin Development Authorities in Nigeria. The Federal Government modified and increased the scope and range of activities of SRRBDA and others by Decree No 87 of 1979 which was further amended by Act No 7 of 1981.

The name of the Sokoto Rima River Bain Development Authority was derived from the names of two rivers flowing in the North Western part of the country i.e. River Sokoto and River Rima which converged around Sokoto town and drained into River Niger near Bunza, Kebbi State.

In 1984 the federal government increased the number of RBDA'S from eleven to eighteen which necessitated the re-organization of the authorities. However

in 1987 the federal government reverted the RBDA'S to eleven and restructured them includes rural development to their functions apart from the water resources development.

The specific functions of the RBDA'S are the following

Performance

The SRRBDA operated seven major projects as follows

S/N	PROJECT	LOCATION
1	Bakolori irrigation	Talata Mafara, Zamfara State
2	Jibiya irrigation	Jibiya, Katsina State
3	Goronyo Dam	Goronyo, Sokoto State
4	Zobe irrigation	Zobe, Katsina State
5	Wara irrigation	Warra, Kebbi State
6	Zauro Polder irrigation	Zauro, Kebbi State
7	Shagari Dam	Shagari, Sokoto State

The agricultural and rural development policy objectives of the SRRBDA was to ensure self sufficiency in food production within it's areas of operation and to open up the rural areas through the provision of basic rural infrastructures and amenities. This was with the view to improve the living standard of the rural populace by means of employment and income generation.

4.4 People Participation

Community participation in the design and execution of programme is essential to the success of any project and people participate in development programme at three levels namely planning and decision making, implementation and at the level of ensuring the sustainability of development programmes or project. In consideration of this proposition, the question is whether large scale irrigation has had the effect of reducing inequality. The income distribution pattern depicted an increasing concentration of wealth in the hands of a few thereby limiting the participation of the poor rural farmers in the SRRBDA project communities. The agricultural development policies of RBDA'S benefited more the large scale farmers and marginalized the rural labour force in addition to alienating land and its produce from them. There is therefore need to reposition the RBDA'S to enlist the participation of rural communities both at the farm level as well as the level of project management at least by farmers representatives.

However in SRRBDA areas participation of rural communities in project planning and execution were minimal and insignificant. The large scale irrigation agriculture of the RBDA'S was too sophisticated in terms of capital requirement and technology to accommodate the rural farmers who were mainly peasants and felt alienated and excluded.

This had possessed serious challenges for the sustainability of the RBDA project because the local communities who could have owned the projects and

continued from where the government stopped were from the level of conception and execution excluded. There was also the problem of inequality which is linked with the level of community participation.

The Authority has a Board, made up of fifteen members nominated by the Federal and the Federal and State Government. The board formulates broad-based policies and guidelines in accordance with government objectives. The management of the Authority is made up of the Managing Director and Executive Directors of the Main Departments/Divisions (viz; Administration and Finance, Operation and Services)

Figure4: Organizational Structure of the SRRBDA

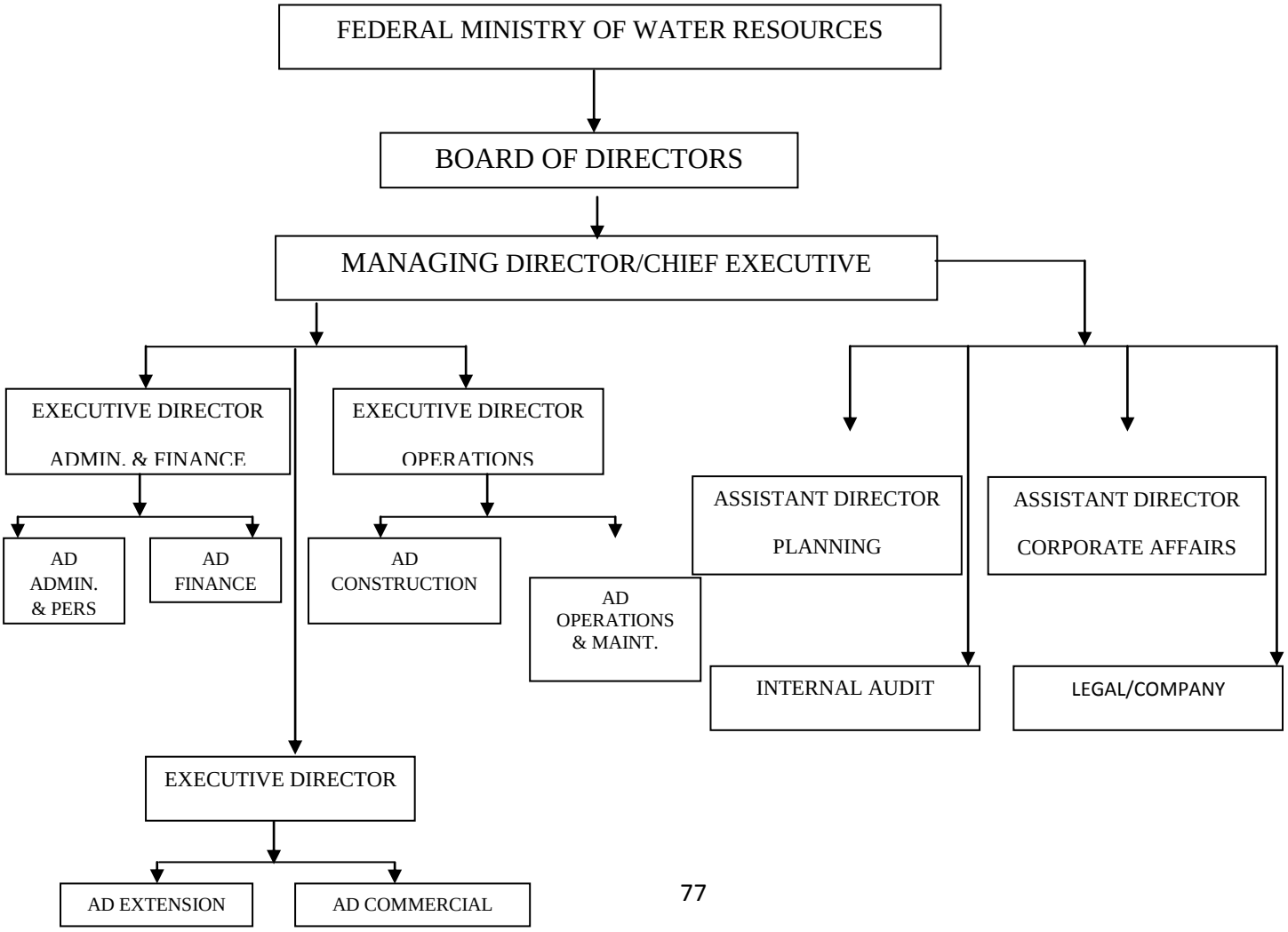


Table 4.1; Staff Strength of the S.R.R.B.D.A

Category		Number
Management Staff	-	23
Senior staff	-	159
Junior staff	-	578
TOTAL	-	760
Pensioners	-	241

4.4.1 Area offices under the S.R.R.B.D.A.

There are three(3) Area offices located at Birnin Kebbi (Kebbi State), Gusau (Zamfara State) and Katsina (Katsina State). These offices are headed by Area Managers and are suppose to co-ordinate the activities of the project under their zones.

4.5 Dam and Irrigation Projects under the S.R.R.B.D.A

Some major Dam projects were established in order to facilitate the attainment of objectives of the S.R.R.B.D.A. These Dam projects are located in various places within its catchment area. They are the Goronyo and Shagari dams in Sokoto State, the Jibiya and Zobe Irrigation and Dam Projects in Kastina State, the Warra Irrigation and Zauro Polder in Kebbi State and the Pioneer Bakolori Irrigaton Project in Zamfara State.

4.5.1 Goronyo Dam Project /Middle Rima Valley Irrigation Project – Sokoto State

The Goronyo Dam was envisaged to supply water for the irrigated agriculture for all the Fadama areas from Goronyo to Birnin Kebbi. Since its completion in 1984, the water stored (942MCM) was unutilized (in terms of irrigation activities). It was in 1999, at the inception of the civilian administration that an effort to develop the Middle Rima Valley Irrigation Project Phase-I was given a serious attention. In this phase the Falalia Sector (one of the six sectors) tagged as Left Bank Scheme was awarded for construction. The major components of this contract are the provision of intake structure (Head works on the main dam), 5.88KM Falalia main supply canals, 284KM lateral canals, field channels, Drains and the development of 736ha of irrigated land. The scheme was completed and handed over to the Authority in 2006.

The farmers have since commenced irrigation activities since 2001 when about 60ha of land been completed. In that year 400 tonnes of assorted crops mainly maize was produced. In the last dry season cultivation, about 6,590 metric tones of assorted crops mainly: - rice, cassava, sorghum and vegetables were produced. This project has empowered many farmers- about 3,750 farming families have benefited. This has greatly reduced the migration of the villagers to the towns in search of greener pastures during the dry season period. The farmers have been introduced to new farming techniques and new improved

seed varieties. Another component of the Goronyo Dam project contract is the rehabilitation of Goronyo Dam. After the completion of the dam, in 1984, the dam has shown a lot of distress signs. These distresses were aggravated by the 1994 floods. The dam had experienced excessive seepage, serious erosion, damages due to floods, and blockage of drains by weeds etc. All these made the dam unsafe and have attracted not only national but international attention. Therefore, in order to make the dam safe and to avoid further deterioration, the Federal Government has awarded the contract for the rehabilitation of the dam to M/S Gilmor Engineering Nigeria Limited the same contractor on MRVIP Phase-1. In the rehabilitation works, the main dam, Secondary dam embankment and saddle dyke were protected; toe drain, collector drain, stilling basin, Katsina hill protection etc were all attended to. Also the link roads, connection of power lines to National grid and construction of Katsina Bridge across Rima River were undertaken. The total contract sum for the construction of the 736 Falalia Sector irrigation project and the rehabilitation of the Goronyo dam was 4,900,000,000

The water from the dam reservoir is the major source of raw for the Sokoto and Kebbi States Water Boards which supplies potable water to their capitals and environs. This is in addition to the recharging of tube wells in the Fadama areas along the Rima Valley and plains. The contract for the second phase of the MRVIP was recently awarded by the Government at the total cost of N21.00

billion Naira. The project is 100% funded by the Federal Government. When completed hundreds of thousand of farming families will be self employed. More grains will be produced which will enhance the food security of the nation.

The Goronyo Dam is the key structure for the water resources and agricultural development of the Middle-Rima Valley and the second phase of the Sokoto Rima River Basin Development Plan. It is a multi-purpose Storage Dam design to store 942mm^3 of water for irrigation and development of downstream area from Goronyo to Argungu, covering an area of over 17,00Ha.

4.6 Dam Rehabilitation and Middle Rima Valley Irrigation project (FALALIA)

Because of the 1994 flood disaster which caused a lot of havoc to the Dam, contract for the Rehabilitation of the Dam and the Construction of about 800Ha Falalia Irrigation Sector out of the 4,200Ha, was awarded to Messrs. Gilmore Engineers (Nig) Limited under the present Obasanjo regime. Two Consultants, Afromedev Consultancy Services and Specialist Engineering Consults are engaged in the Consultancy Services on the Dam Rehabilitation and the construction of the irrigation area respectively.

4.6.1 Achievement of the Goronyo Dam Project

- The Dam provides water for irrigation and development of downstream areas of the Middle-Rima Valley and Zauro Projects.

- It is also designed to provide an annual regulated flow of 425 million M^3 to double the present rice cultivated Fadamas from 40,000 to 80,000Ha.
- The Project also supplies 60 million of M^3 of water, annually, to Sokoto, Argungu and Birnin Kebbi Water Supply Schemes, while the 200km^2 Reservoir is expected to boost fish production.
- About 736 Ha. of Irrigation block 6.2 Falalia Sector became operational this season of 2001/20002 Dry season operation, in which 2600 farmers benefited

4.6.2. The Bakalori irrigation Project –

This is an irrigation project which was commissioned since April, 1983. It was envisaged to irrigate 23,000ha of irrigable land. It has two irrigation components-Surface (gravity system) 8,000ha and sprinkler system which has 15,000ha. Beside the provision of water for irrigation, the water from the dam reservoir with a capacity of 450million cubic meter supplies raw water for the Sokoto, Kebbi and Zamfara State Water works. This raw water is treated for urban and semi-urban water schemes in these states which provide clean water for the millions of people as well as for industrial use. Beside these, the water from the reservoir recharges the Fadama areas along the Sokoto Valley which the local farmers used in the irrigation of thousands of hectares of land in the Fadama area. Also among the component of Bakolori Dam, is the provision of a Hydro-Turbine which was used in generation of 3MW of electricity. This is not

functioning anymore due to lack of spares parts and obsolete nature of this type of technology. After about 15 years of irrigation activities at the project, a lot of problems have accumulated which rendered more than 2/3 (two third) of the irrigation land unirrigable. The major problems are water logging which submerged thousands of irrigable areas, constant erosion of flood protection dykes which damage thousand tones of crops each year, siltation of drains, canals siltation and breakages dilapidated services roads, theft and vandalization of sprinkler equipments, lack of spare parts for the electromechanical gadgets in addition to their exorbitant costs etc. the causes of the above problems which ultimately led to the deterioration of the project are as follows:

- Lack of funds to carryout routine maintenance works
- Since the inception of the project up til 1998 there was not any major rehabilitation work
- Lack of farmers' involvement in the initial planning design and construction of the project.
- Institutional management problems

It is only with the coming of the Civilian Administration in 1999 a serious effort was initiated for the tackling of the problems associated with this project. The effort has led to the birth of what is now known as Rehabilitation of Bakolori Irrigation Project Phase -1. In this phase, the Federal Government

spent about N650, 000,000:00 for the rehabilitation of this project. In this phase major problems associated with irrigation/water conveyance structures were attended to. These include the rehabilitation of main supply canal, secondary and tertiary canals, flood dyke and drains. Also supply basic maintenance machineries and tools as well as operational vehicles were provided, electromechanical equipments were repaired, Dam safety enhanced. The result of these is the increase of the areas brought under irrigation. Presently, about 7,200ha of land is under irrigation, as against 3,000ha prior to 1999. Now more than 450,000 tonnes of assorted grains are produced annually against 38,132.4 in the 2001. This means that more farming families are now benefiting from the project. Local people (the project covers 4LGAs) are now fully engaged in both wet and dry season farming hence earning more income for the betterment of their health, education, housing etc. Also in this phase, a design proposal was made for the conversion of the Sprinkler system of irrigation (15,000ha) to surface irrigation (gravity) system. The proposal is now awaiting implementation. In all the sum of N9.33 billion Naira is needed to effect the conversion. The sum of N100, 000 million was earmarked for the commencement of the job in the 2007 appropriation.

The dam project derives its name from the village of Bakolori and is the first phase of Sokoto Rima River Basin Development. This is a scheme recommended to be built by the Food and Agricultural (FAO) of the United

Nations between 1962 and 1969. The project comprises a dam on the River Sokoto at a storage capacity of 450 million cubic metres of water enough to irrigate 35,000 hectares for agricultural and fisheries development. Its concrete spillway is 360 metres long and total embarkment length is 5.5 kilometers and would also supply up to 3,000 k.w. of hydro power. As at June 1981, a total of 4,767 farmers were accommodated in the project.

While some inhabitants in Sokoto state are engaged in livestock rearing, trading and public service, farming was and is still the major occupation and the economic significance of it is essential Yahaya(2002). in order to cope with the problems of aridity, rainfall, variability and the lack of food sufficiently, irrigation is acknowledged of great importance in sub-sahara Africa since colonial times.

The idea to develop the Sokoto Basin is based on a food and agricultural (FAO) soil and water resources study from 1969. FAO recommended a relative modest dam and irrigation scheme (12,000ha) as part of a comprehensive basin development plan. The two stages plan schemes and further downstream extensive irrigated polders in the flood plain (FAO 1969). The tradition pattern of life was explicitly stated as well as the necessity of a slow development due to the lack of experience with modern irrigated agriculture in Nigeria inspired by the FAO study. The Nigerian military government invited a proposal in 1971 from consulting engineers for design, contract preparation and supervision of

Bakalori irrigation project. In 1972 the Federal Government awarded the contract for the project to impresit Bakolori Nigeria limited.

In 1973 under the Federal ministry of water resource, Sokoto-Rima River Basin Development Authority (SRRBDA) was established and is responsible for the major Bakolori irrigation project. Construction of the Dam which started in 1974/75 and was completed in 1981. The construction supervision was undertaken by the British company (MRT) consulting engineers (Nigeria).

The estimated construction was US Dollar 285 million but escalated to by 140% on the estimate to 685 million in 1983. (Kolawole).

4.7 Shagari Dam

The federal Government of Nigeria through the federal ministry of water resources awarded the contract for the construction of Shagari Dam across river Gawon Gulbi in Shagari local government Area of Sokoto State in June 2004. It was completed in March 2007 and has since been commissioned.

The salient features of the dam are as follows-:

- Reservoir Capacity 15mcm
- Length of the dam axis 1340m
- Height of the dam 13m
- Length of spillway 100m
- Height of spillway 11m

The construction cost of this dam is N1.3 billion Naira (one billion, three-hundred million Naira only), while the contractor is m/s CGC Nigeria limited.

The dam is specifically meant for water supply and irrigation purposes to Shagari and its environs. The construction of the dam was supervised by m/s De crown, while the federal ministry of water resources is the engineer.

On the 11th of January 2008, the dam was handed over to Sokoto River Basin Development Authority.

The reservoir area comprises of 31 villages both in Shagari local Government and Tureta local Government respectively and had since receive their compensation of lands/Economics trees and structures.

The reservoir villages comprises of the following among others

i. Lambara

ii. Gangam

iii. Kumbama

iv. Takalmawa

v. Dorowa

vi Mazoji

vii Badiyawa etc.

4.8 Other Projects in the Area of Operation –

It may also be of interest to know that in addition to the above, the authorities have identified and commenced implementation of the underlisted projects:-

(a) Middle Valley Project;

(b) Zauro-Birnin Kebbi Polder Project;

(c) Gagare-Bunsuru River Basin Development Project;

(d) Zobe Dam Project;

(e) Kastina Water Resources Project;

(f) Gada Benye Project;

(g) Jibiya Irrigation Cum Water Supply; and

(h) Niger valley project – Yalewa Area.

Due to the absence of reliable, relevant data and our inability to visit the above projects, it is impossible to correctly assess the current cost of each project and its impact on small farmers. Discussions with the Authority's official revealed that these projects will be pursued vigorously. On the whole, they informed the author that if all are successfully implemented, there could be a radical transformation in the social and economic circumstances of the beneficiaries living in the Sokoto Rima River Basin.

4.8.1National Green Revolution Programme –

The Authority has been actively participating in the above scheme. For example in the dry season of 1981-82, 5,014 hectares of land was cultivated in the Bakolori project to produce an estimated 13,946 tonnes of various crops. The target for 1982 wet season was set at 10,383 hectares, including 2,500 hectares (assisted programme) in other projects (Sokoto, Katsina, Dutsinma).

4.8.2Tractor Hiring Service –

This section started with a few tractors in 1978. This is a sort of key service for the timely planting of various crops at the project. At the time of the

study, it was discovered that there were more than 200 tractors and agricultural implements in good working order. In addition, necessary farm machinery implements like ploughs, harrows slashers, ridgers, cultivators, fertilizers, spreaders, seedrills and combine harvesters etc. have also been made available. On the tractor hiring service side it may be mentioned that the tractor hiring unit in the seven projects or stations had 131 total tractors with implements which covered about 7,047 hectares of land and realised a total amount of #120,267.23 in 1981 while in 1982 with 225 tractors an average of 6,000 hectares were covered and the amount realised was only #85,316.00.

4.8.3Fertilizer Distribution –

Overall, according to the Rima Basin study, it was estimated at the end of 1981, that the central stores/fertilizer stores of Bakolori Irrigation Project had in stock 30,600 tonnes of assorted fertilizers like S.S.P compound (N.P.K) S.S.P., B.S.P. and C.A.N. out of which 8,935 tonnes were issued to the farmers during 1982 season at the Bakolori Irrigation Project. The authority also distributed 15,559.75 tonnes of various types of fertilizer.

4.8.4Seed Distribution –

Considering the importance of good quality seed in crop production, the authorities plan to provide high quality seeds to the farmers. These seeds being supplied include the seeds of wheat, rice, maize, groundnut, cowpeas and vegetables. From 1978-1982 more than 500 tonnes of seeds wheat, 68 tonnes of

seeds of maize, 140 tonnes seeds of groundnuts and 6.4 tonnes seeds of rice were distributed by the authority to the farmers.

Table 4.2: List of Small Earth Dam Construction under Millennium Development Goals Programme

S/N	LOCATION	L.G.A	STATE	REMARKS
1	Tureta	Tureta	Sokoto	Completed
	Katami	Silame	"	"
2	Wauru	Gada	"	"
3	Bargar Kaya	Maradun	Zamfara	"
4	Sakka Ahidjo	Koko Besse	Kebbi	"
5	Illogoru	Baagudo	"	"
6	Rikoto	Zuru	"	"
7	Kingakwai	Dandi	"	"
8	Kasharuwa	Gusau	Zamfara	"
9	Bingi	Bungudu	"	"
10	Birnin Magaji	B/Magaji	"	"
11	Anka	Anka	"	"
12	Sandamu	Sandamu	Katsina	"
13	Kaita	Kaita	"	"
14	Malumfashi	Malumfashi	"	"
15	Maska	Funtua	"	"
16	Dapchi	Zuru	Kebbi	"

Source: Data obtained from Planning and Research Dept. SRRBDA

Table 4.3: List of Small Earth Dams Constructed With Budgetary Programme

S/N	LOCATION	L.G.A	STATE	REMARKS
1	Tsaskiya	Safana	Katsina	Completed
2	Iyandoto	Chafe	Zamfara	"
3	Kurfi	Kurfi	Katsina	"
4	Maradun	Maradun	Zamfara	"
5	Yabo	Yabo	Sokoto	"
6	Daanchadi	Bodinga	"	"
7	Rudu Amanawa	D/Shuni	"	"
8	Laribo	Kware	"	"
9	Yeldu	Arewa	Kebbi	"
10	Bela	Argungu	"	"
11	Bargar Kaya	Tambuwal	Sokoto	"
12	Jandutse	Shagari	"	"
13	Jangemu	Gusau	Zamfara	"
14	Zango	Zango	Katsina	Ongoing

Source: Data obtained from Planning and Research Dept. SRRBDA

Table 4.4: List of Medium Earth Dams under Construction

S/N	LOCATION	L.G.A	STATE	REMARKS
1	Dutsi	Dutsi	Katsina	Completed
2	Mashi	Mashi	"	"
3	Nasarawa	Kankiya	"	"
4	Gada Banye	Charanchi	"	"
5	Kusada	Kusada	"	"
6	Romon Saarki	Tambuwal	Sokoto	"

7	Margay	Kebbe	“	“
8	Jare	Bakori	Katsina	“
9	Achida	Wurno	Sokoto	“
10	Gummi	Gummi	Zamfara	“
11	Ingawa	Ingawa	Katsina	“

Source: Data obtained from Planning and Research Dept. SRRBDA

Table 4.5: Completed Irrigation Schemes/Project

S/N	LOCATION	L.G.A	STATE	Irrigation Area (Ha)	
				Planned	Developed
1	Bakolori Irrigation Project	T/Mafara	Zamfara	23,000	23,000
2	Middle Rima Valley Irrigation Project	Goronyo	Sokoto	4,250	817
3	Jibiya Irrigation Project	Jibiya	Katsina	3,400	2,000
4	Warra Irrigation Project	Warra/Bagudo	Kebbi	1,200	1,200
5	Zobe Irrigation Project	Dutsin-ma	Katsina	5,400	100 (Pilot scheme)
6	Zaurro Polder Project	B/Kebbi	Kebbi	10,672	100 (Pilot scheme)
7	Niger Valley Irrigation Project	Yelwa Yawuri	Kebbi	4,000	120
8	Karaduwa Project	Karaduwa	Katsina	3,600	-
9	Gargare Bunsurru Project	Shinkafi	Zamfara	15,400	-
10	Gada Banyee Project	Yargamji	Katsina	2,500	-
11	Fakuwa Water Supply Irrigation Project	Fakuwa	Katsina	1,000	-

12	Kurfi Water Supply Irrigation Project	Kurfi	Katsina	100	-
13	Ruma Water Supply Irrigation Project	Ruma	Katsina	100	-
14	Minor Irrigation Scheme	Many location around Yauri	Kebbi	500	-
			TOTAL	**75,122**	**26,137**

Source: Data obtained from Planning and Research Dept. SRRBDA

Table 4.6: Irrigation Project under Budgetary Allocation

S/N	LOCATION	L.G.A	STATE	REMARKS
1	Raha Minor Irrigation Project	Bunza	Kebbi	Ongoing

Source: Data obtained from Planning and Research Dept. SRRBDA

Table 4.7: Water Supply Project

S/N	LOCATION	L.G.A	STATE	REMARKS
1	Bunza Water Supply Project	Bunza	Kebbi	Ongoing

Source: Data obtained from Planning and Research Dept. SRRBDA

Table 4.8: Erosion/Flood Control Projects under Ecological Fund Office

S/N	LOCATION	L.G.A	STATE	REMARKS
1	Shinkafi	Shinkafi	Zamfara	Ongoing
2	Danmarke	Maru	Zamfara	"
3	Isa	Isa	Sokoto	"
4	Tambuwal	Tambuwal	Sokoto	"

Source: Data obtained from Planning and Research Dept. SRRBDA

CHAPTER FIVE

DATA PRESENTATION AND ANALYSIS

5.1 Introduction

This chapter is devoted to Data Presentation and Analysis on the activities of SRRBDA. Accordingly the data derived from the field and the interviews conducted were analyzed with the intention of testing the 4 hypotheses formulated by this study. The contribution of Sokoto Rima Basin Development Authority to the development of irrigation farming in Sokoto State as well as the ecological, social and environmental problems associated with Dams constructions and operations were contained in the hypotheses and questions were asked on the effect of funding to SRRBDA activities pertaining to irrigation development and issues of soil erosion and community participation in SRRBDA programmes. In the analysis of the data collected the study employed the simple descriptive technique using cumulative percentage analysis, charts and figures and thereafter employed statistical technique of coefficient correlation in order to establish relationship between the hypotheses and the data collected and to highlight the major achievements and constraints in the implementation of SRBDA and other Rivers Basin development authorities as agents of rural development in Nigeria.

The research data were based on the responses from our survey questionnaire and the face to face interview in addition to various research

findings and publications of agricultural research institutions and the academic seminars on rural development in Nigeria.

5.2 Nature and the Types of Respondents

The research was conducted in 15 villages across the main rivers covered by Sokoto Rima river Basin development authority namely River Sokoto, River Rima and Shagari Dam involving Goronyo, Wurno, Kware, Wamakko, Raba, and Shagari local government area in Sokoto state.

Apart from the questionnaire used in the SRRBDA catchment areas a different set of questionnaire was also administered on staff of Sokoto Rima River Basin Development Authority to ascertain the extent to which the activities of the authority have impacted on the quality of rural lives as a result of the operations of SRRBDA.

400 questionnaires were distributed in 15 villages and SRRBDA covering farmer's associations, youth groups, market women, vigilante groups and students associations. 388 questionnaires were returned representing 97% while 12 questionnaires representing 3% were not returned. Interviews were conducted on 20 SRRBDA staff from among core departments of research and development, engineering, operations and services department. The questions centred on programmes undertaken by the authority, successes recorded, problems encountered and measures employed to tackle the problems. . Interviews were also conducted on 20 among community leaders in the project areas in the evenings when most of the rural dwellers have come back from

farms or markets. We believe that the interview would enable us to determine the extent to which SRRBDA had performed and more importantly the impact of their performance on the quality of life of the rural dwellers. The summary of interview results is shown at the end of analysis of hypothesis one and interview schedule is attached in appendix.

Data were collected with the assistance of agricultural extension workers under international fund for agricultural development (IFAD) programme (Sokoto agricultural and community development project SACDP) and Fadama III program staff. Being agricultural extension workers the staff were trained in data collection and rural sociology. They were involved in the interpretation of the questionnaire and the interview questions in order to overcome the problems of language barrier and the pessimism of some rural dwellers to answer questions from a strange person Background and personal information of the respondents is as follows;

Table 5.1.1; Socio-Economic Characteristics of Respondents

AGE	**FREQUENCY**	**PERCENTAGE**
25-30	36	9%
31-40	128	33%
41-50	144	37%
51-60	52	14%
61-above	28	7%
Total	388	100%

Source; survey research 2012

Table 5.1.2; Showing occupation of Respondents

OCCUPATION	FREQUENCY	PERCENTAGE
Farming	204	53%
Trading	62	16%
Civil Service	98	25%
Student	24	6%
Total	388	100%

Source; survey research 2012

Table 5.1.3; Showing educational qualifications of Respondents

EDUCATIONAL STATUS	FREQUENCY	PERCENTAGE
Primary	76	19%
Secondary	68	18%
Post-Secondary	48	12%
Others i.e. Adult and Quranic Education	196	51%
	388	100%

Source survey research 2012

5.3 TESTING OF HYPOTHESES

The 4 hypotheses formulated for this study were stated in chapter one and questionnaires were designed, distributed, filled and returned. Interviews were conducted in order to test the hypotheses drawn for this study. Accordingly the analysis of the data was done using cumulative percentage analysis and statistical technique of Pearson chi-square to test the relationship between the data collected and results obtained within the parameter of the research hypotheses.

5. 3.1 Testing of Hypothesis One

The hypothesis one of this study states that there is no significant relationship between funding of SRRBDA and provision of irrigation facilities in Sokoto State.

To examine the contribution of SRRBDA on the development of irrigation farming and improvement on the quality of lives of the rural dwellers, as well as the effect of funding to smooth running of the SRRBDA activities, the responses of our survey respondents on the questionnaire as well as the comments of informants on the relevant portions of the interview as well as field observation were analysed to provide empirical evidences which could support or disagree with the hypothesis.

The study analyzed the performance of the SRRBDA in many areas of its intervention such as accelerated food production programme and income generation as a dependent variable, the establishment, funding and operation of SRRBDA is the independent variable. Accordingly the performances of SRRBDA in the following indices of rural development are used for measuring the contributions of SRRBDA to irrigation and rural development in Sokoto state. The areas are: -

i. Increased food production

ii. Portable water

iii. Access roads

iv. Erosion and flood control

v. Employment generation

vi. Economic development

viii. Good housing and sanitation condition

The provision of these basic services is an indication of good performance whereas the non provision of these basic services is non performance

The opinions of our survey respondents on the performances of SRRBDA in the area of irrigation development, improvement of socio economic status and provision of social amenities are as follows;

Table 5.2.1 Respondent Opinion on the extent to which SRRBDA Provides Irrigation Facilities in Sokoto State

S/NO	Response	NO OF RESPONDENT	
		NO	%
1.	Very high extent	52	13
2.	High extent	112	29
3.	Medium extent	126	32
4	Low extent	64	17
5	Very low extent	34	9
	Total	**388**	**100**

Source: Survey Data obtained in the field 2012

The above responses indicated that majority of farmers are the opinion that SRRBDA has improved irrigation facilities in Sokoto State which created job for thousands of farmers and raise their living standards.

In the questionnaire respondent were asked to comment on the effect of funding to the successful operation of SRRBDA activities. The responses collected were as follows;

Table 5.2.2 Respondents Opinion on the extent to which funding affects the provision of irrigation facilities by SRRBDA

S/NO	VARIABLES	NO OF RESPONDENT	
		YES	%
1.	Very high extent	78	20%
2.	High extent	123	32%
3.	Moderate extent	147	38%
4	Low extent	22	6%
5	Very low extent	18	4%
	Total	**388**	**100**

Source: Survey Data obtained in the field 2012

Presentation of Results

Based on the hypothesis one that there is no significant relationship between funding of SRRBDA and provision of irrigation facilities in Sokoto State.

The above data were imputed into the SPSS and processed accordingly using Pearson chi-square .The results produced are presented as detailed below;

Hypothesis I

I Chi-Square Tests

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	790.595	16	.000
Likelihood Ratio	693.661	16	.000
Linear-by-Linear Association	318.912	1	.000
N of Valid Cases	388		

Symmetric Measures

		Value	Asymp. Std. Error	Approx. T	Approx. Sig.
Nominal by Nominal	Phi	1.427			.000
	Cramer's V	.714			.000
	Contingency Coefficient	.819			.000
Interval by Interval	Pearson's R	.908	.007	42.520	.000
Ordinal by Ordinal	Spearman Correlation	.906	.008	42.081	.000
N of Valid Cases		388			

Interpretation of Result

Decision rule; Accept the null hypothesis if the calculated value is less than the critical value, otherwise reject the null hypothesis if the calculated value is greater than the critical value and accept the alternate hypothesis**.**

The equation above indicated that the calculated value of Hypothesis One is 790.595 which are greater than the Critical value of 26.30 at the degree of freedom at df 16. The analysis of the above result confirm the rejection of the null hypothesis which states that there is no significant relationship between funding and provision of irrigation facilities by SRRBDA, and accept the alternate hypothesis that there is significant relationship between funding and provision of irrigation facilities by SRRBDA.

The Problem of funding has greatly militated smooth completion of on-going projects embarked upon by SRRBDA and also crippled the existing ones. Lack of funds has delayed the use of Goronyo Dam for irrigation activities which could enable 7,000 farmers participate in irrigation activities. Goronyo reservoir was dammed over 30years ago (1984) without irrigation facilities except in 1999 when contract for the construction of Falalia 1 involving 736 hectares of irrigation land was awarded in 1999 and completed in 2006 at the cost of 4.9billion naira. Phase II (Takakume sector) of 614 hectares was awarded in 2008 with 12km Canal irrigation area and completed in 2012. In addition to Falalia and Takakume sectors Mai iyali sector of 1380 hectares was successfully completed in 2014. To that effect 2800 hectares are now under cultivation and about 14,000 farming families are involved in irrigation activities.

In the case of Bakolori Dam a lot of problems rendered 2/3 of the irrigable land unirrigable 23,000hectares comprising of surface gravity system

[8000 ha] and sprinkler system [15,000 ha] were left unutilized for a long time because of lack of funds. Whereas ₦9.3billion was needed to convert sprinkler system of irrigation to surface gravity only 100million had being provided for the plan and design. Equally, Shagari Dam completed in 2008 meant for the supply of water for irrigation purpose is up to now not provided with funds for the construction of canal and drainages.

Analysis of Secondary Data; Hypothesis One

A breakdown of Government funding to SRRBDA in respect of irrigation farming in Sokoto State from 2005 to 2010 is as follows;

Table 5.2.3 Showing funding of projects undertaken by SRRBDA in Sokoto State; 2005 – 2010

S/NO	PROJECT	AMOUNT	REMARKS
1	First phase Middle Rima Irrigation project (Goronyo)	4.9 Billion	Completed 2006
2.	Second Phase Irrigation Middle Rima Project (Goronyo)	21.Billion	Completed 2010
3.	Repairs of spill way Goronyo Dam	3.8Billion	Completed 2010
4.	Construction of Shagari Dam	1.3Billion	completed 2008
5.	MDG/ Appropriation 2007	4 Billion	
	MDG/ Appropriation 2008	1.9 Billion	

	MDG/ Appropriation 2009	1.4 Billion	
	MDG/ Appropriation 2010	1.2 Billion	

Source: Progress Report on SRRBDA 2012

A cumulative output of production trend of middle Rima irrigation project (Goronyo) from 2005-2010 is as follows;

Table 5.2.4; Crops Grown In the Goronyo Dam Irrigation Project

a) Wet Season Cropping

S/No	Type of crop	Hacterage ha	Percentage %
1.	Rice	984	95
2.	Cassava	26	2.5
3.	Sorghum	16	1.5
4.	Maize	10	1.0
Total		**1036**	**100**

Source; Planning Department SRRBDA

b) Dry Season Cropping

S/No	Type of crop	Hacterage ha	Percentage %
1.	Wheat	103.6	10
3.	Cassava	207.2	20
4.	Onion	207.2	20
5.	Garlic	103.6	10
6.	Water Melon	51.8	5
7.	Cowpea	259	25
Total	Vegetables	103.6	10
		1036	**100**

Source; Planning Department SRRBDA

Summary of Production Trend in Goronyo Dam from; 2005-2011

2005/06 Dry season (545 ha)	=	6, 587 Tons
2006 – Rainy Season (545 ha)	=	3,123 Tons
2006/07 – Dry Season (736 ha)	=	9,500 Tons
2007 – Rainy Season (736 ha)	=	11,420 Tons
2007/08 – Dry Season (736 ha)	=	9,151 Tons
2008 – Rainy Season (736 ha)	=	9,825 Tons
2008/09 – Dry Season (736 ha)	=	7, 540 Tons
2009 – Rainy Season (736 ha)	=	8,773 Tons
2009/10 – Dry Season (690 ha)	=	6,258 Tons
2010 – Rainy Season (756 ha)	=	1,512 Tons (Including Takakume)
2010/11 – Dry Season (756 ha)	=	6,402 Tons
2011 – Rainy Season (1006 ha)	=	8,060 Tons
2011/12 – Dry Season (1006 ha)	=	10,931 Tons
TOTAL		**99, 082.00 Tons**

The turnover is estimated to about **N7, 431, 150, 000.00**

Tables 5.2.4 a) and b) above show agricultural production trends in SRRBDA areas from the period 2005 to 2011. From the data, it can be assumed that appreciable impact was recorded in the authority's drive to raise agricultural production and raise the economic status of the peasants in the project areas. The increased income for the farmers is to cater for necessities which they could not produce themselves. By this means, the standard of living of the rural dwellers would increase and poverty and unemployment would be reduced.

The turnover for the Goronyo Dam alone for six (6) years is over Seven Billion Naira while for Bakalori Dam, it is over Fifteen Billion Naira.(Source; Planning Department SRRBDA)

However, in spite of increased food production as a result of SRRBDA and other agricultural development agencies, the Government spent an average of N1.4 trillion annually on food import during the period of our study (FMA 2012). The country has become dependent on import of food items to meet local consumption as a result of gross short falls in domestic supplies.

In view of the above limitations, respondent's opinion on the SRRBDA socio-economic benefit to the rural farmers is as follows;

Table 5.2.5 Classification of Survey Respondents According to Farmers Perception of the Socio-Economic Benefits of SRRBDA Project

S/NO	VARIABLES	NO OF RESPONDENT		NO OF RESPONDENT	
		YES	%	NO	%
1.	Provision of farmland and irrigation facilities	345	89	43	11
2.	Improved income level	388	100	0	0
3.	Improved production level	341	88	47	11
4.	Easier access to schools and health centres	260	67	128	33
5.	Acquisition of household item for comfort	248	64	140	36
6.	Acquisition of production items.	345	89	43	11
	Cumulative percentage	1927/ 2328 x 100= 83%	497 / 600 x 100=83%	401 / 2328 x 100= 17%	102 / 600 x 100 =17%

Source: Survey Data obtained in the field 2012

From the responses above all the respondents have asserted that their income level have improved as against the period before the establishment of SRRBDA. 89% had their production level increased as against 11% and 67% have easier access to schools, dispensaries and membership of farmers and cooperative associations? The research discovered that the activities of SRRBDA has contributed towards the improvement of the economic status of rural dwellers in its areas of operation as almost90% of the respondents have

indicated that their productive level and socio-economic status has been enhanced by SRRBDA operations.

.A similar research on The Assessment of The Lower Benue River Basin Development Authority and The Sokoto –Rima River Basin Development Authority, 1976 – 1985 by Ogwu (2009) reveals that about 70% or 175 respondents strongly agreed and 50 respondents or 20% agreed and are of the opinion that SRRBDA Irrigation Schemes made double cropping possible within the project areas and increased Agricultural Production, while 15 respondents or 6% and 10 respondents or 4% strongly disagreed or disagreed with that claim. Similarly, 50 respondents or 20% and 80 respondents or 32% strongly agreed and agreed that SRRBDA created employment and improved household income. The study discovered that SRRBDA carried out socio-economic activities which were reflective of rural development within its catchment areas these included the sustenance of large scale irrigation activities in Talata Mafara, Jibiya, Goronyo, Zobe Wara, Zauro and Pilot Irrigation Schemes in Yauri, Kwanar Are, Jega, Argungu and Gagara as well as construction of small earth Dams in many locations which provided drinking water to human and livestock and provision of portable drinking water through boreholes drilling etc.

5.3.2 HYPOTHESIS TWO

The hypothesis number two of this study states that there is no significant relationship between adequate funding of SRRBDA and effective control of flooding and Soil erosion.

Flood is one of the most widespread and destructive natural disaster occurring due to various reasons like heavy rainfall, damming of rivers, hurricane and melting of snow. Often flood is sudden and are difficult to predict. The major effect of floods is destruction of life and property; each year thousands of people lose their lives due to floods and millions are rendered homeless. Flooding cause damage to infrastructure like roads and bridges in urban areas and destroys farmlands in agricultural areas. The accumulation of water in pools results in spread of various infectious diseases such as diarrhoea. In view of the serious damages and losses suffered as a result of the flooding from the Goronyo Dam in 2010 and the perceived inability of the SRRBDA to adequately control flooding of farmlands and properties due to financial constraints. Responses were sought on the extent to which funding affects control of flooding which is one of the functions of the authority and the responses are as follows.

Table 5.2.6; Respondents Opinion on the level to which funding affects the control of flooding and Soil Erosion by SRRBDA

S/NO	VARIABLES	NO OF RESPONDENT	
		NO	%
1	Very high extent	32	8
2	High extent	63	16
3	Moderate extent	123	32
4	Low extent	134	35
5	Very low extent	36	9
	TOTAL	**388**	**100**

Source: Survey Data obtained in the field 2012

Presentation of Results

Based on the hypothesis two that there is no significant relationship between funding of SRRBDA and effective control of flooding and soil erosion. The above data were imputed into the SPSS and processed accordingly. The results produced using Pearson chi-square are presented as detailed below;

Hypothesis II

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	1552.000	16	.000
Likelihood Ratio	1058.797	16	.000
Linear-by-Linear Association	387.000	1	.000
N of Valid Cases	388		

Symmetric Measures

		Value	Asymp. Std. Error	Approx. Sig.
Nominal by Nominal	Phi	2.000		.000
	Cramer's V	1.000		.000
	Contingency Coefficient	.894		.000
Interval by Interval	Pearson's R	1.000	.000	
Ordinal by Ordinal	Spearman Correlation	1.000	.000	
N of Valid Cases		388		

Interpretation of Result

Decision rule; Accept the null hypothesis if the calculated value is less than the critical value, otherwise reject the null hypothesis if the calculated value is greater than the critical value and accept the alternate hypothesis.

Analysis of the above responses and data indicated that the calculated value of hypothesis two is 1552 at the degree of freedom of 16, which is higher than the critical value of 26.30 and confirm that the null hypothesis that states that there is no significant relationship between adequate funding of SRRBDA and effective control of flooding and Soil erosion, is hereby rejected because there is significant relationship between funding and the ability of SRRBDA to adequately control flooding and soil erosion in its project areas. Without adequate funding capital intensive projects such as dam maintenance and heavy water control proved to be very difficult.

According to our findings, most of the SRRBDA projects were without up to date social and environmental impact assessment (EIA) to determine the effects of the scheme on the rural farmers. The failure in implementing the project was dramatically illustrated by the uprising of the farmers at Bakolori Dam where

Petitions were written by the farmers but without meaningful results, indeed farmers were rendered helpless as they lack the power and means to articulate their interest.

At the end the farmers' changes their tactics from peaceful demonstration to rebellion directed at stopping the contraction work, access roads and irrigation works. This repeated troubles finally culminated in Apirl1980 whereat least 386 protesting non armed farmers were killed by state police (Shetima 1997).

Analysis of Secondary Data hypothesis two

Goronyo Dam over flooded in 2010 and 95 villages were submerged and 192, 791 persons displaced As a palliative measures, the sokoto state Government decided to relocate most of the villages affected along Goronyo Dam and to construct houses for flood victims as follows:-G oronyo Local Government- 400 houses, Silame Local Government 250 houses and Gada local government - 350 houses

Goronyo and Bakalori Dams were constructed with the sole purpose of boosting agricultural production and consequently improving farm income. This has remained a one-dimensional concept with little or no regard for its socio-ecological compatibility and sustainability. For water resources projects to be sustainable, experts have argued that such projects must follow two development goals: socio-economic and socio-ecological developments.

At the Goronyo and Bakalori Irrigation Projects(of SRRBDA) a lot of problems rendered 1/3 of the irrigable land un-irrigable. 23,000 hectares comprising of surface gravity system 8,000 sprinkler system 15,000 were left un developed resulting into water logging which sub-merged thousand of irrigable area and thousand tonnes of crops annually, dilapidated roads and vandalization of sprinkler equipments and lack of spare parts for the electro mechanical gadgets in addition to their exorbitant cost all led to the deterioration of the projects as follows:

- Lack of funds to carry out routine maintenance works

- Since 1983 up till 1998 there was no any major rehabilitation.

Table 5.2.7 Showing number of villages and households displaced by Sokoto flood (2010) from Goronyo dam

S/No	LGA	NO. OF VILLAGES	NO. OF HOUSEHOLDS	REMARKS
1.	GADA	19	4, 621	All victims have cut off their main settlement to the outskirt of their villages where they made temporary shelter as camp.
2.	GORONYO	11	3, 518	All victims have cut off their main settlement to the outskirt of their villages where they made temporary shelter as camp.
3.	KWARE	7	1, 352	Affected persons moved to their neighbours that were not affected.
4.	WAMAKKO	7	2, 120	Affected persons moved to their neighbours that were not affected.
5.	ISA	3	2, 196	Affected persons moved to their neighbours that were not affected.
6.	SILAME	18	4, 521	All victims have cut off their main settlement to the outskirt of their villages where they made temporary shelter as camp.
7.	RABA	11	1, 011	Victims relocated to the neighbouring villages.
8.	WURNO	19	1	Victims relocated to the neighbouring villages.
TOTAL	**8**	**95**	**20, 840**	

TOTAL DISPLACED PERSONS - 192, 791

Source: Survey Data obtained from department of ecological and relief matters Sokoto State.

Shagari Dam Site

Towns affected and displaced by the Dam construction

1. **Lambara**

i. Kauran Marafa ii, Illela Dabore iii, Dundeje iv, Dalijan

V, Gidan Baura

2. **Gangan**

i. Ruggar Buda ii, Takalmawa

3. **Doruma**

i. Bela

4 **Kambama**

i. Manni

5. **Shagari**

i. Gidan Zabarmawa

ii. Tudun lona

Source; Planning Department, SRRBDA Sokoto

In the past, irrigated agriculture in the semi-arid Nigeria was restricted to the seasonally flooded or floods plains along the major savannah channels and/or depressions, locally called "fadama". It was small-holder irrigation dependent on the shadouf system of lifting water as well as on residual moisture utilization technique. The system was based on natural recycling of nutrients

through animal siltation by flooding rivers, dung of grazing animals and occasional addition of household refuse. Olofin (1993) described this as a sustainable and organically balanced system.

Yahaya (2002) provides insight into catalogue of consequences that followed the Bakolori irrigation project- farmers disposed of their productive

farmlands, fraudulent reallocation process, inadequate compensation and no resettlement. He went on to say that these problems raise the question on whether Bakolori irrigation project was a development or a catastrophe.

World Bank (1995) acknowledged the ecological changes within these highly productive plains being far reaching mostly with adverse environmental, social and economic effects. Elucidating more on the ecological devastation of Bakolori dam, World Bank report that the dam has altered the flood plain hydrology and as a consequence recession agriculture on the flood plain has been seriously curtailed both in terms of under cultivation and market value for the crops grown.

Omokore (1996) in his study of social impacts of river basin development projects on local population, the case study of Goronyo Dam in Sokoto state, discovered that Goronyo Dam is the second largest man-made lake in Nigeria after southern Chad irrigation project and covers an area of about 425m cubic meters of water to boost fishing industry double the cultivated Fadama from 40,000 to 80,000 hectors and consequently raise agricultural production in the

state. However the reservoir created by the Dam has submerged 43 villages and is yet to be completed (1996) while all the ingredients needed to develop small farmer agriculture are nonexistent in the new settlement, what we have now could best be described as a set of uprooted agricultural population who have to grapple with problems of socio-economic adjustments.

In the Bakolori Dam, 13, 000 farm families were disposed of their farmlands and left as landless peasants. The plight of the displaced farmers in Goronyo dam is disturbing. Peasants are being pushed off their land into smaller plots or on less fertile farmland or forced off the land entirely into towns to find any other economic means of livelihood. The researcher observed reduction in size and composition in household organization due to emigration of members in search of greener pastures and in the process many farmers were forced to change to other occupations such as fishing, tailoring, and trading, blacksmithing and commercial motorcyclists.

According to Kolawole (1991) land was expropriated at the Bakolori dam with little or inadequate compensation accompanied by centrally dictated cropping patterns, somehow rude management practices, and prohibitive farm and water charges, furthermore water from the Dams happened to be unpredictable, unreliable, untimely and inconvenient to irrigators there by increasing the risk of crop failure. Eventually farmers displaced by the construction of the Dam demanded for compensation over loss of land, homes and economically valuable trees.

Kolawole (1991) also maintained that the operation and management of the water facilities is very poor resulting among others in environmental degradation, salinity and weed ingestion. These negatively affect more than 50% of the available area under surface irrigation area capable to turn the irrigation sites into a barren land in the foreseeable future. Another negative consequence seriously affecting the live quality of the rural dwellers is the remarkable increase in human water borne diseases. Farmers under the Bakolori and Goronyo irrigation projects experienced deterioration in their health status. Evidences revealed that they are more predisposed to diseases attack after the project than before.

Omokore (1996) discovered that the major source of water supply to most of the farmers in the project area is wells which most (92%) of the farmers used, followed by canal (36%) and river and streams (32%) the implications of this findings on the state of health of the farmers cannot be overemphasized. For instance diarrhoea and other water borne diseases that pervades human communities without safe or portable drinking water and sanitation

Alkasum Abba et al (1985) asserted that the Goronyo Dam has severely affected the lower Rima basin expending from sokoto in the North to Argungu, Birnin Kebbi….. down to the confluence of the Rima and Niger, a whole economic and cultural system unit around farming and fishing in the flood plains of the lower Rima sustaining over one million people has been cut off from the flow of the river water necessary for its survival and as a result the

very lives of these people is being seriously threatened. These areas with very extensive Fadama plains rice and other products such as sugar cane, onions and fish can feed the whole sokoto region and beyond.

5.3.3 Hypothesis Three

The third hypothesis of this study states that there is no significant relationship between community involvement and the successful implementation of SRRBDA projects.

The involvement of the people in their own development or participation is the most effective way to vitiate the alienation, the pessimism and the passivity that are often characteristics features of community behaviour. Thus people can only contribute toward their economic upliftment when and where they have effective representation, when and where they are given the opportunity to express their views freely on policy matters, where they are encouraged to carry out self help project when and where effective two way channels of communication is established between the SRRBDA officials and the community members. In other words, the level of community participation in development project is a reflection of the perception of community members about such projects in relative to the perceived or actual impact on their quality of life.

Table 5.2.8 Respondents opinion on the level to which SRRBDA involve Rural dwellers in their programmes

S/No	Response	Number of Respondents	Percentage of Respondents
1	Very high extent	47	12
2	High extent	54	14
3	Moderate extent	120	31
4	Low extent	117	30
5	Very low extent	50	13

Interpretation of results

Based on the hypothesis three that there is no significant relationship between community involvement and successful implementation of SRRBDA Projects.

The above data were imputed into the SPSS and processed accordingly using Pearson chi-square .The results produced are presented as detailed below;

Hypothesis iii

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	762.614	16	.000
Likelihood Ratio	732.183	16	.000
Linear-by-Linear Association	308.757	1	.000
N of Valid Cases	388		

Symmetric Measures

		Value	Asymp. Std. Error	Approx. T	Approx. Sig.
Nominal by Nominal	Phi	1.402			.000
	Cramer's V	.701			.000
	Contingency Coefficient	.814			.000
Interval by Interval	Pearson's R	.893	.008	39.028	.000
Ordinal by Ordinal	Spearman Correlation	.918	.008	45.338	.000
N of Valid Cases		388			

Interpretation of Result

Decision rule; Accept the null hypothesis if the calculated value is less than the critical value, otherwise reject the null hypothesis if the calculated value is greater than the critical value and accept the alternate hypothesis.

Analysis of the above responses and data indicated that the calculated value of hypothesis three is 762.614 at the degree of freedom of 16, which is higher than the critical value of 26.30 and confirm that the null hypothesis that states that there is no significant relationship between community involvement and successful implementation of SRRBDA Projects, is hereby rejected because there is significant relationship between community involvement and the ability of SRRBDA to adequately implement programmes in its project areas.

Community involvement and participation is very cardinal to the success of any government policy or programme. The ministry of national planning Abuja (1980) maintained that "Development starts with people, their re-orientation, organisation and discipline. When the ascent of development is on things, all human resources remain latent and an untapped potential, such that the society can be poor amidst the most opulent material resources. On the contrary when a society is properly oriented, organized and disciplined it can be prosperous on the scantiest basis of natural wealth". According to World Bank (1999) people have a right to partake in actions and plans which affect their lives as non participation approach to development have failed to significantly alter the quality of life and resources of the poor people worldwide.

To confirm above position an analysis of community attitude to SRRBDA activities is as follows;

Table 5.2.9; Assessment of community attitude to SRRBDA

S/NO	VARIABLE	NO. OF RESPONDENTS		NO. OF RESPONDENTS	
		NUMBER	%	NUMBER	%
1.	The strength of opinion in your community is supportive of SRRBDA project.	341	88	47	12
2.	Your present level of satisfaction with SRRBDA project is high.	248	64	140	36
3.	The strength of opinion in your community is high utilisation of SRRBDA services.	279	72	109	28
	Sub Total	868	224	296	`76
	Cumulated Percentage Analysis	868/1164x 100 = 75%	224/ 300 x 100 = 75%	296/1164 x 100 = 25%	`76/300x 100 = 25%

Source: Survey Data obtained in the field 2012.

Findings from the interview conducted revealed that to most of the rural farmers the Bakalori and Goronyo Dams is just a poly to confiscate their land and later reallocated to wealthy individuals in the society, and this inform the nonchalant attitude exhibited by many rural farmers to SRRBDA activities.

Analysis of Secondary Data; Hypothesis Three

To Yahaya (2002), lack of community involvement had posed serious challenges for the sustainability of SRRBDA project because the local community who could have owned the project and continue form where the Government stopped in the area of maintained of agricultural and intra structural facilities were from the level of conception and execution excluded

For rural development organizations and service providers, participation means becoming more accountable to communities, the village action plans provide the terms of reference that guide future assistance to the community. Moreover, villagers influence how the development organization and service providers organize their work with the village. Through their strengthened organizations, villagers can more strongly voice their satisfaction or dissatisfaction with the services received and indicates how service delivery can be improved. Each actor involved in development programme i.e. community members, service providers, development agency staff and political and administrative authorities each has a unique role to play and task to perform. Villagers must actively participate in both the analysis of their problem and the search for their solutions. They must identify their priorities and develop actions that can address them. The challenges for administrative authorities at state and National Levels are to take the concerns of Local people into consideration when allocating resources for development activities. Participation leads away

from relationship based on dependence and hierarchical position to one based on partnership and collaboration.

The use of participatory method in Benin has intensified contact between technical service staff and villagers. Contact with technical service staff is not limited to key contact person in village groups. Everyone can freely talk with staff and solicit their help and advice. Technical staff feels far more effective in villages. They also believe their relationship with villagers has improved. They report that farmers now ask them many more questions and are very interested in the training and demonstration sessions. Planning actions with the villagers help the service staff to better address the topics of greatest interest to the villagers and communication between the staff and villagers has become more egalitarian.

Negri et al (1981) developed participatory continuum to suit the type of Participation which best matches the various types of development programme.

5.2.10 Community participation in Development Programme Model

S/N	Mode of Participation	Involvement if local people
1.	Co-option	Token representatives are chose, but have no real input or power
2.	Compliance	Tasks are assigned with incentive. Outsiders decide agenda and direct the process/
3.	Consultancy	Local opinions are asked, outsiders analyse and decide on course of action.
4.	Co-operation	Local people work together with outsiders to determine priorities, responsibility remains with outsiders for directing process.
5.	Collective action	Local people set their own agenda and mobilize to carry it out in the absence of outside initiator and facilitator.

Ogueri (2010) opined that the major issue confronting rural development programmes in Nigeria was absence of sustainability that is driven by participation of programme beneficiaries. He stated that a very strong positive relationship between participation and sustainability exist. The more people were involved to address their own development (from inception to completion/evaluation)the more the confidence and success level associated with such programmes. To him participation can be measured using 4 key elements; these elements were responsibility, accountability, consultation and information otherwise known as RACI model. This model infers that in rural development programme execution, participation of the rural people should take either or all of the 4 key elements mentioned above.

R- responsibility of Government and people

A- accountability to ensure execution

C- consultation to seek approval

I- information to create awareness

Application of this model will help to reduce if not eliminate conflict and crisis associated with non participation of rural people in the development of their communities.

However participation of the rural community in the design, planning and execution of SRRBDA projects were minimal and insignificant, this is partly attributable to the top-down strategy of rural development employed by

SRRBDA authority in which decisions were taken without consultation to the rural farmers who are the target beneficiaries of the SRRBDA programmes.

5.3.4 Hypothesis Number four

Hypothesis number four of this study states that there is no significant relationship between political environment and administrative procedures and the ability of SRRBDA to successfully implement its activities. In order to test the above assumptions, Respondents opinions on the effects of corruption and political interference on the implementation of the SRRBDA Projects were sought and presented a s follows;

Table 5.2.11; Respondents opinion on the extent to which political environment and administrative procedure affect the performance of SRRBDA

S/N	*RESPONSE*	***Very high extent***	***High extent***	***Moderate extent***	***Low extent***	***Very low extent***	***Total***
1	*Corruption*	*18*	*25*	*95*	*184*	*66*	*388*
2	*Mismanagement*	*13*	*31*	*48*	*182*	*114*	*388*
3	*Inadequate Manpower*	*12*	*17*	*164*	*113*	*82*	*388*
4	*Political Interference*	*16*	*42*	*94*	*162*	*74*	*388*

Source: Survey Data obtained in the field 2012.

Hypothesis iv

Chi-Square Tests

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	725.336	12	.000
Likelihood Ratio	751.825	12	.000
Linear-by-Linear Association	330.431	1	.000
N of Valid Cases	388		

Symmetric Measures

		Value	Asymp. Std. Error	Approx. T	Approx. Sig.
Nominal by Nominal	Phi	1.367			.000
	Cramer's V	.789			.000
	Contingency Coefficient	.807			.000
Interval by Interval	Pearson's R	.924	.005	47.484	.000
Ordinal by Ordinal	Spearman Correlation	.938	.005	52.938	.000
N of Valid Cases		388			

Interpretation of Result

Decision rule; Accept the null hypothesis if the calculated value is less than the critical value, otherwise reject the null hypothesis if the calculated value is greater than the critical value and accept the alternate hypothesis.

Analysis of the above responses and data indicated that the calculated value of hypothesis three is 725.336 at the degree of freedom of 12, which is higher than the critical value of 21.30 and confirm that the null hypothesis that there is no significant relationship between political environment and administrative procedures and the ability of SRRBDA to successfully implement its activities is hereby rejected because there is significant relationship between lack of corrupt practices, sound management, minimal political interference and skilled manpower and the ability of SRRBDA to adequately implement its programmes.

Views and facts obtained in respect on the impact of Political environment and Administrative procedures on the operations of SRRBDA were presented below

Shortage of Skilled and Trained Manpower

Responses from the survey conducted indicated that most of the SRRBDA officials interviewed complained about shortage of qualified manpower of all professions and categories notable in such fields as climatology, hydrology, civil engineering, agric engineering, geography and others. Furthermore, the staff strength of SRRBDA is skewed towards the preponderance of non-technical and non-engineering staff such as Finance and Administration with Sixty five percent against thirty five percent for engineering and technical staff, this has greatly affected project supervision and extension liaison services between the SRRBDA and rural communities. The SRRBDA has also failed to open local offices except in dams sites where as the

activities have covered one third of Sokoto State. Farmers in Wurno, Kware, Rabah, Gada, and Shagari Local Government therefore have to travel to SRRBDA's Headquarters in Sokoto to lodge any compliant as there is no project or extension office in the local governments.

Corruption: -

Corruption has terribly infested Nigerian society to the extent that most of the public institution in Nigeria has been severely compromised by corrupt practices; the effect has militated against most of the development programmes initiated by the Government under the river basin development programme. A survey of most water schemes by SRRBDA reveals that most of these projects were either uncompleted or grounded because of corrupt practices between project officials and contractors. The syndrome of getting a share of the National cake hindered operation of the RBDA in such a way that money meant for farmers went to local politicians who took the opportunity to enrich themselves illegally. This explain why despite the huge sums of money and materials invested in RBDA projects there is very limited achievements recoded in the areas of agricultural production and infrastructural development. This is in part of manifestation of some weakness of the Nigeria social where bribery, corruption, mismanagement and Wanton neglect of official responsibility were prevalent.

Akindele et al in their study of Owenna river basin development Authority observed that corruption was so pervasive in the authority that

government was forced to set up ac6005tee to look in to the activities of the organization. The central Bank of Nigeria Annual report (1983) noted wide spread financial irregularities in the RBDA's operations.

Politicization of SRRBDA activities

Intense politickings in the running of SRRBDA project have greatly impaired the effective performance of the Authority. During the period between 2001-2007 when the minister of water resources is from sokoto state and the state is governed by a different political party than that of the federal Government SRRBDA was used as a means of rewarding man political who are in the same party with the minister but who are not in control of the state government by getting contract of millions of naira which they eventually abandoned or partly executed. Many earth da0s and water supply projects given

Discussion

The four null hypotheses tested in this study were tested and rejected and therefore accepted the alternate hypotheses.

The statistical analysis carried out on the data collected from the respondents of the affected communities pertaining to the development brought about by the activities of the SRRDBA shows that there is Significant Improvement in the ways of life of the rural dwellers and SRRBDA performance in areas such as:

a. Provision of portable water

b. Provision of access roads

C .Increased food production

It is very pertinent to mention that the SRRBDA performed wonderfully in the transformation of socio-economic status of the people of rural areas. . The provision of irrigation facilities has improved the agricultural production of the rural areas. The activities of the SRRBDA have also provided works for the jobless youths and enhance the life condition of the rural dwellers

In the interview conducted many of the rural farmers admitted that SRRBDA activities has contributed to raise irrigation farming and agricultural production in their areas which ultimately led to improvement in their socio-economic status, but many farmers complained that the large scale irrigation project of the SRRBDA benefited the large scale farmers most for the obvious reason that the large scale farmers were those who possessed the socio – economic and political where withal to avail themselves of the services and facilities offered by the project.

These findings of the study agreed with an observation made by Abbah (1986) that the benefit of large scale irrigation in the case of Bakolori project in Talata Mafara (SRRBDA Project) accrued more to the rich than the poor because the capital costs of large scale irrigation agriculture were huge that the peasant farmers could not meet them.

The capital-intensive technology of the RBDAs irrigation and its commercialization of agriculture destroyed the livelihoods of the peasant farmers and artisans. Both concentrated wealth in the hands of those who were well to do and made them wealthier to buy more land, appropriate more of a larger surplus, and expanded their trade. This process weakened the erstwhile-cherished communal system built on mutual responsibility and sharing, both vertically between patrons and clients and horizontally between small farmers and the landless. The traditional social relationship with obligations thus, gave way to cash relationship without obligations.

The rural-urban link of the wealthy farmers was strengthened and their positions reinforced through alliance with political leaders and with the bureaucracy while the poor rural families became weakened, impoverished and isolated. The activities of the RBDAs therefore, created a situation whereby the rich and powerful got richer and more powerful while the poor became relatively and often absolutely poorer and weaker. The rural poor thus gained little from the activities of the RBDAs. They were made to face the challenges of these inter-locking disadvantages, which trapped them in deprivation, underdevelopment and poverty. Thousand of the rural people were therefore, drifting daily into deeper and more tightly integrated poverty. They were faced with the vicious cycle of poverty i.e. the syndrome of poverty trap

However the activities of SRRBDA have caused problems to the people of the affected rural areas. They were left as landless peasants. Farmers were pushed off their lands to less fertile farmlands. Some even changed economic means of livelihood. The SRRBDA is an organization set up with good aims and objectives. Its activities would have brought succour or relief from economic, social, educational and even political bondage for the people of the rural areas. Flood and Erosion brushed over their land. They were left homeless and with infertile soil. Some left their villages to the towns looking for other economic means of livelihood.

Rural development efforts should therefore, be focused on the empowerment of the poor to enable them break – loose from the poverty trap and to eliminate all forms of exploitation of the rural poor by the rich.. Therefore one of the greatest challenges of rural development in Nigeria remains how to convert stated goals and objectives into specific actions, which would impact positively on the rural life. From the responses collected and analysed above. It is obvious that failure to involve rural communities in the design and execution of rural development projects is one of the problems militating smooth operation of SRRBDA, a typical example is the adoption of large scale irrigation system which was too expensive and time consuming and did not suit the needs, realities and peculiarities of the rural population. Most of the time without inputs from the people and implemented behind them thereby

leaving lots of questions unanswered. This was the general complain from most of the rural communities administrative questionnaires and interviewed. The construction of Shagari Dam for instance were done so hastily that most of the villages in the reservoir area were not informed to vacate the area during the rainy season and were left to face the flooding of their houses and farmlands without any resettlement or compensation. This explains why many people consider the approach of SRRBDA to project execution as project centred rather than people centred. Under these arrangements, the authority concentrated most of their efforts at executing government identified goals without giving as much thought to those the project was meant to benefit. Involving communities in their own development saves cost and ensures survival and sustainability of the project. As a result of this According to Yahaya (2002), catalogue of consequences followed the project. Some of these include farmers disposed off their productive farmlands, fraudulent re-allocation processes, inadequate compensation and destruction of economic trees and crops as a result of the irrigation site.

Modo I.V.O. (1986) concludes that RBDA's are so bedevilled by resettlement problems over mechanization, high operational cost, and excessive dependence on imported machinery most of which lack spare parts that they can hardly be effective food basket of the nation. While the project authorities and government claim that the objective is being achieved the majority of the rural

people make claims to the contrary. To most people the scheme has meant abandonment of their lucrative dry season farm occupation while to some others the project meant the growing of such crops as wheat, tomatoes, etc. to the detriment of their favoured wet season crops especially sorghum. The production of these crops has not significantly improved the diet of the rural people as they are sold in order to buy basic manufactured goods required in their homes.

5.4 Major Findings

1. That SRRBDA has contributed significantly to the development of irrigation in Sokoto State as a result of Irrigation Schemes established in Goronyo and Bakolori Dam through which thousands Tons of Rice and other food materials are grown annually, however given proper funding SRBDA could have performed better in the provision of irrigation facilities in Sokoto State.

2. That large scale farmers benefit most from the SRRBDA activities because they can afford to buy fertilizer pesticides and herbicides at higher prices, pay water charges and cultivate large hectares of land in contrast to small farmers who produce at subsistence level to feed their familiar and obtain some income for family up keep.

3. The study revealed that Goronyo Dam (a SRRBDA project) has submerged 43 villages and 13,000 farm families were disposed of their farm

lands and left as landless peasants, where as environmental management is not given due attention in the planning and execution of SRRBDA project.

4. Land was expropriated at the Goronyo, Bakolori and Shagari Dams with little or inadequate compensation and farmers are being pushed off from their land into smaller plots or on less fertile land or forced off the land entirely into towns to find any other economic means of livelihood.

5. That because community leaders are not adequately involved in SRRBDA activities there is strong apathy towards the authority especially the centrally dictated cropping pattern imposed on the farmers, arbitrary water charges, lack of extension services, absence of credit financing and rude water management.

6. That the SRRBDA approach to project execution is project centred rather than people centred. As a result of this not much thought was given to those the project was meant to benefit. Thus, people can only contribute toward their economic development when and where they have effective representation when and where they are given opportunity to express their views freely on policy matters and when and where effective two way communication is established between SRRBDA officials and community members in their project areas. According to World Bank President MC Namara (1973) A development programme will be of no help to the rural poor if it is designed by those who have no knowledge of their problems and operated by those who have no interest in their future

CHAPTER SIX

SUMMARY, CONCLUSION AND RECOMMENDATIONS

6.1 Summary

This chapter summarizes the major findings of this study, draws conclusions and offers recommendations towards enhanced performance of Sokoto Rima Basin Development Authority as one of the agents of rural development and catalyst for enhanced food production in Nigeria. The study revealed that the authority has made positive impacts on the lives of its target population but that the issue of non-involvement of the rural dwellers in the planning and execution of the project activities has seriously undermined the successful operation of the authority's programmes.

Other factors responsible for the poor performance of the SRRBDA were identified and discussed as shortage of trained professional staff, corruption, excessive politicization of SRRBDA activities and inadequate funding. Lack of access to financial services by the rural farmers were also discussed in a state with higher incidence of poverty where about 80% of rural dwellers live on less than one dollar a day. Agricultural credit and financing is therefore very vital to the development of agriculture considering the high cost of insecticides and pesticides so that large area of arable land can be put into cultivation.

6.2 Conclusions

The value of this study has been in the effort to generate empirical data on the impact of the River Basin Development Authorities (RBDAs) in general and the Sokoto-Rima Basin Development Authority (SRBDA) in particular, on the standard and living conditions of the rural dwellers. The general perception is that River Basin Development Authorities (RBDAs) at all levels have under-performed.

The River Basin Development Authorities (ABRDAs), have not successfully addressed the challenges of rural underdevelopment in Nigeria. Underdevelopment manifests in hunger, disease, poverty, illiteracy and inadequate socio-economic infrastructures, lack of basic and social amenities, limited employment and natural degradation. Indeed, by all indices of rural development in the country, the River Basin Development Authorities (RBDAs), have encountered serious setbacks as a result of inadequate funding, mismanagement, inconsistent Government policy, rural dwellers apathy and a host of others.

The study is of the view that the River Basin Development Authorities (RBDAs), as agents of rural development, need to be restructured to focus on small-scale irrigation projects, which would create accessibility for the peasant farmer into the agricultural expected of the RBDAs. It is hoped that the recommendations of this study will be faithfully implemented in order to

stimulate the sustainable development of the rural country, which are not being exploited at the moment. This responsibility cannot be passed on to another generation because we don't have that luxury of time.

Thus, in the quest for rural development and poverty alleviation in the country, River Basin Development (RBDAs), as a strategy of rural development deserves helpful attention. With proper repositioning and effective management, the scheme has high potentials to stimulate improved agricultural productivity and provide development at the grass-root level. The experiment is therefore, worth trying we must break the vicious cycle of rural under development and poverty in Nigeria. This fact underscores the importance if not centrality, of rural development to national development in the country.

The activities of the River Basin Development Authorities has rendered many rural farmers landless and homeless through the loss of their farmlands to irrigation projects and their inability to be absorbed into the capital intensive irrigation system. This development has resulted in the impoverishment and further entrenchment of rural farmers in under development. At the centre of development is the upliftment in the general welfare of the people through the elimination of poverty, hunger and inequality (seers). However life for the vast majority of the rural dwellers many years after the introduction of the SRRBDA has been solitary and poor because their farmlands and houses were confiscated and they were not adequately resettled and compensated.

6.3 Recommendations

Based on the research findings, we offer the following recommendations

Availability of trained manpower

The technical and professional staff of SRRBDA should be increased to match the wide coverage of the authority and to provide effective service to the farmers. The staff strength of most of the RBDA'S across the country were skewed towards the preponderance of non-technical or engineering professions such as finance and Administration.

Intense politicking within RBDA'S

Intense politicking and politicization of RBDA'S has greatly hampered the performance of SRRBDA and should be discontinued. A case in point is between 2001-2007 when SRRBDA was used as a shadow Government by the 'Abuja politicians' to match the Government of the rival party in Sokoto State. Major appointments in the Authority such as the Board and Management are filled with politicians, so also contracts were awarded to politicians in the name of non existent firms. These ultimately affect the quality and durability of the contract jobs executed. The major reason for this inter and intra-politicking are economic gains enjoyed by those at the head of the Board and management of SRRBDA. Accordingly SRRBDA became a theatre for the elite and politician to feed fat on what should have been used to build rural infrastructures without bothering the needs of the ordinary people in the local community.

Community participation.

Underlining the poor performance of SRRBDA is the failure to involve rural communities in the design and execution of rural development projects. Community driven strategy should be adopted by SRRBDA where people will be the centre piece of RBDA programming because involving people in their own development saves cost and guarantees projects maintenance even after the Government as completed the construction of the facilities. This is because people knew what they most needed were always ready to defend such decisions. The value of this study has been the effort to highlight the major problems hampering the smooth operation of SRRBDA and other RBDA'S as agent of agricultural development and rural development in Nigeria.

Funding: The failure of the Federal Ministry of Water Resources to honour full financial obligations to SRRBDA in implementing irrigation schemes and in controlling flood and soil erosion.

Attitude to Government Programmes.

There has been persistent lukewarm attitude towards government programmes in most of the rural areas in Sokoto State. This in effect created problem on maintenance of infrastructure put on by Government . There should also be social impact assessment of every project designed for construction by SRRBDA in order to ensure that the issue of resettlement and compensation are well taken care of in so as to avoid past mistakes made in the

construction of Bakalori, Goronyo and Shagari dams where thousands of displaced farmers were left homeless with no alternative land or compensation and many were forced to abandon farming and migrated to cities in search of means of livelihood.

There should be a coordinated approach in rural development whereby all the agencies concerned with rural development should collaborate with each other so as to avoid unnecessary duplication and wastages.

Continuity: - The politicization of the activities of SRRBDA should be discontinued. Project should be sited purely on merit and farmers' needs and should be carried out irrespective of the government of the day so as not to waste huge investments incurred in many projects simply because a minister has been removed or a new administration has been elected with a new cabinet and Board members.

Complementary infrastructural facilities such as portable water, electricity, hospital and schools should be provided in the rural areas so as to raise the living standard of the rural dwellers and enable them to put their best in agriculture.

The involvement of communities in their development efforts should be intensified because development must be interwoven with the fabrics of the society. Rural development programmes should not be in the hands of few

individuals who formulate and implement rural transformation programmes who are socially remote from the people.

Planning: Any rural development programmes without facts on rural basic needs, land, population income distribution and inputs and outputs analysis need to be executed as it has limited channels for success.

The dichotomy between rural and urban infrastructure need to be reduced. More budgetary provision should be made by all tiers of government towards developing rural infrastructures.

Also long range rural development goals which are synonymous with socio-economic and political institutions, relations and processes of production in the rural areas need to be evolved.

There is need for multi-sectoral and multidimensional approach to rural development encompassing all aspects of rural life. i.e.

i. Employment opportunities
ii. Development of viable agriculture
iii. Rising educational and literacy standard
iv. Boosting local industries and commerce
v. Water, roads, health and sanitation and other physical infrastructures.

The Poverty Alleviation and Skills Acquisition and programmes embarked upon by the government should be expanded to cover rural areas and it should be continuous over time. Future agricultural development programmes should be with 'human face' where due consideration should be given to the existing

circumstances of the intended beneficiaries and future consequences of such development initiatives. A validated socio-ecological and environmental impact assessment should be carried out a prior to the project implementation, inventory and registration of peasants' assets and the worth of each item noted and owners compensated accordingly. Development projects should not only be aimed at economic aims but also at social benefits to be designed along the social, economic, political and cultural perspective to development.

The indigenous knowledge system (IKS) of the largest beneficiaries should form the bedrock of such efforts to ensure acceptability and compatibility among planners and beneficiaries of such development programmes.

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DRAFT QUESTIONAIRE

Department of Public Administration
Faculty of Administration,
Ahmadu Bello University, Zaria

Dear Respondent, I am a post graduate student of Department of Public Administration Ahmadu Bello University, Zaria carrying out a research on the topic "The contributions of Sokoto Rima River Basin Development Authority to Rural Development in Sokoto State 2005 – 2010''

The SRRBDA was established to improve and expand irrigation farming in Sokoto State and raise the living standard of its rural communities. The persistent deteriorating living condition in the rural areas despite the establishment and operations of Sokoto Rima River Basin Development Authority (SRRBDA) is therefore a matter of great concern.

This questionnaire is designed to seek information on the performance and impact of the project on irrigation and agricultural development in Sokoto State. You are therefore kindly and most humbly requested to provide sincere and objective answers to the questions asked in the questionnaire. Please be assured that all the information supplied will be treated with utmost confidentiality and anonymity.

Thanks for your co-operation **Muhammadu Umaru Yabo**

Questionnaire for SRRBDA Staff

Section A

Personal Data

LGA

State

Highest Educational Qualification

Grade Level

Rank

Age

Sex

Section B

General information on SRRBDA

1. Catchment areas of SRRBDA you are working (indicate them)

2. Indicate number of projects under taken in the areas.

3. In your opinion is the projects rural based

4. What are the main occupation(s) of the people in the area?

Section C

Opinion of respondents on SRRBDA performance

5. SRRBDA was established to raise irrigation farming and productivity in Sokoto State. How do you rate SRRBDA in the performance of this objective

   a. Very high extent

   b. High extent

   c. Moderate extent

   d. Low extent

   e. Very low extent

6. Which of the following rural infrastructure have been provided by SRRBDA and to which level are they provided

S/N	Infrastructure	VHE	HE	ME	LE	VLE
a.	Rural roads					
b.	Portable water					
c.	Schools and clinics					
d.	Electrification					
e.	Production items					
f.	Household items					

7. Indicate what factors influence the choice of location of SRRBDA project

   a. Availability of fertile land

   b. Public demand for SRRBDA services

   c. Politics

   d. Federal/State Government interference

   e. All of the above

8. To what extent did funding affect the provision of irrigation facilities by SRRBDA.

   a. Very high extent

   b. high extent

   c. Moderate extent

   d. Low extent

   e. Very low extent

9. To what extent did the following affect the performance of SRRBDA?

S/N	Infrastructure	VHE	HE	ME	LE	VLE
a.	Lack of skilled manpower					
b.	Interference from the Government					
c.	Mismanagement					

d.	Corruption					

10 Nigeria has continued to depend on food importation despite the establishment of SRRBDA and other RBDA's because

a. RBDA's have not employed practical strategy.

b. Rural dwellers are uncooperative

c. There is problem of continuity of projects in Nigeria

d. Changing priorities of successive Governments.

e. All of the above

11 Should SRRBDA be scrapped or re-organised for effective performances?

a) Scrapped

b) Re-organised

c) Reinvigorated

d) None of the above

12 To what extent are rural communities involved in SRRBDA activities?

a. very high extent; b. high extent; c. moderate extent; d. low extent and e. very low extent

13 At what level are rural communities involved in SRRBDA projects?

a) Decision making

b) Implementation

c) Maintenance and sustainability of projects

d) All of the above

e) None of the above

14 In your opinion to what extent is the relationship between funding and control of flood and soil erosion by SRRBDA?

a, very high extent b, high extent c, moderate extent d, low extent e, very low extent

15 What measures are being taken to address these problems?

16 Are rural communities co-operative with SRRBDA in addressing this problem?

17 Have you any comments and suggestions towards enhanced performance of SRRBDA?

Questionnaire for SRRBDA Project Communities

Section A: Bio – data

i. Name of town/village

ii. Local Government Area

iii. Occupation

iv. Age

v. Sex

vi. Educational Qualification

a) Primary

b) Secondary

c) Tertiary

d) No formal education

vii. Membership of community or professional association

viii. Position in vii above

Section B: Performance of SRRBDA

1) Are you aware of SRRBDA?

a) If yes through which medium

i. Radio/Television ii. Print Media iii. SRRBDA services
iii. All of the above

2) SRRBDA was established to raise irrigation farming and productivity in Sokoto State. How do you rate the performance of SRRBDA in this objective?

a. Very high extent
b. High extent
c. Moderate extent
d. Low extent
e. Very low extent

3) Which of the following rural infrastructure have been provided by SRRBDA in your community and to which level are they provided? (tick as appropriate

S/N	Infrastructure	VHE	HE	ME	LE	VLE
a.	Rural roads					
b.	Portable water					
c.	Schools and clinics					
d.	Electrification					
e.	Production items					
f.	Household items					

4) To what extent did funding affect the provision of irrigation facilities by SRRBDA?

a. Very high extent
b. High extent
c. Moderate extent
d. Low extent
e. Very low extent

5) To what extent did the following affect the performance of SRRBDA?

S/N	Infrastructure	VHE	HE	ME	LE	VLE
a.	Lack of skilled manpower					
b.	Interference from the Government					
c.	Mismanagement					
d.	Corruption					

6) What do you think SRRBDA is trying to do?

a. Improve Agriculture
b. Provide jobs
c. Increase income
d. Raise the living standard of rural people
e. All of the above
f. None of the above

7) In your opinion to what extent is the relationship between funding and control of flood and soil erosion by SRRBDA?

a. Very high extent
b. High extent
c. Moderate extent
d. Low extent
e. Very low extent

8) What measures are being taken to address these problems?

9) Do rural communities co-operate with SRRBDA in addressing this problem?

10) To what extent are rural communities involved in SRRBDA activities?

a. Very high extent
b. High extent
c. Moderate extent
d. Low extent
e. Very low extent

11) At what stage are they involved?

a. At planning and formulation stage
b. At execution stage
c. At maintenance stage

d. All of the above

e. None of the above

12) In your opinion is there any relationship between community involvement in SRRBDA projects and its performance ?

a. Very high level

b. High leve

c. Moderate level

d. Low level

e. Very low level

13) Are SRRBDA officials very close to the rural populace?

a. Yes

b. No

14) What is the rate of utilization of SRRBDA services by rural populace?

a. Often utilized

b. Not often utilized

c. Insignificant utilization

d. None of utilization

15) What is your view about rural populace acceptance of SRRBDA projects?

16) How will you rate the extent of impact of SRRBDA projects on your community?

a. Very high extent

b. High extent

c. Moderate extent

d. Low extent

e. Very low extent

17) Should SRRBDA be scrapped or allowed to continue?

a. Strongly agree

b. Agree

c. Undecided

d. Disagree

e. Strongly disagree

18) Have you any suggestions or recommendations towards enhanced performance of SRRBDA?

_____

_____

_____

_____

_____

_____

Interview Scheduled For SRRBDA Staff

1. In your opinion what purpose do you think SRRBDA has been established to achieve?
2. Are you satisfied with the performance of the SRRBDA in respect of the following sectors?
    a. Irrigation development
    b. Flood and erosion control
    c. Community involvement and participation
3. Were funds adequately provided for SRRBDA operations and were such funds judiciously managed?
4. How have SRRBDA performance been impaired by the following factors?
    a. Corruption
    b. Lack of adequate and timely release of funds
    c. Lack of good leadership
    d. Political interference
    e. Lack of skilled manpower
5. At what level have the rural communities been involved in SRRBDA projects?
6. Should SRRBDA be scrapped or reorganize for effective performance?
7. What advice do you have for SRRBDA that could improve their service delivery to their project communities?

Jami'ar Ahmadu Bello

Zariya

TAKARDAR NEMAN BAYANI DA RA'AYI KAN AYYUKAN HUKUMAR GULABEN SOKOTO DA RIMA (SRRBDA)

SASHEN NA NA DAYA

i. Sunan Gari

ii. Karamar Hukuma

iii. Sana'a

iv. Shekaru

v. Matakin Makaranta

vi. Kungiya

SASHE NA BIYU - Tambayoyi Kan Hukumar Gulaben Sokoto da Rima (SRBDA).

1a. Ko Kasan da Kafuwar Hukumar Gulaben Sokoto da Rima?

1b. Ta Wace Hanya Kasan da Kasancewar Wannan Hukuma

i. Ta Kafafen Watsa

ii. Ta Ayukkanta a Garimmu

iii. Duka Wadannan Hanyoyi

2a. Ko ka taba amfani da ayukan wannan hukuma ta Rima

2b Ta wace hanya

a. Ruwan Sha

b. Aikin Gona

c. Hanyar Mota

d. Taki da Rance ga Manoma

e. Filin Noma

3a. A ra’ayinka wace manufa wannan hukuma ta Rima take son ta cimma

i. raya aikin gona

ii. samarda aikinyi

iii. talafama tattalin arzikin manoma

iv. duka wadannan

v. babu duka aciki wadannan

4. Ko hukumar Rima na samun isasun kudi kuma yaya tan a amfani da su?

5a ko hukumar Rima na Shawartar manoma kafin gudanarda ayukan su?

5b. A wane mataki suke tuntubar manoma?

i. kafin kirkiro da shiri

ii. wajen gudanarda shirye-shiryen su

iii. wajen kulawa da abubuwan da suka samara

iv. babu duka wadannan

6a. A ra;ayinka ko akwai wata dangataka tsakanin tuntubar mutane da cin nasarar shirye-shiryen hukumar Rima?

(a) (e) (b). a’a

7. Ko jamian hukumar Rima suna tuntubar manoma ko da yaushe?

8. Menene matsayin karbuwar shirye-shiryen hukumar Rima ga jama’a

9a. ko akwai wani cigaba daka samu daga ayyukan hukumar Rima

9b. ta wacen hanya

i. filin noma

ii. shawarwarin cigaba fanning kimiyar noma

iii. samarda ruwa da kayan aiki don noma

iv. duka wadannan

v. babu daya daga wadannan

10. ko ka taba samun daya daga wadannan matsaloli ayukan Gulbi Sokoto ko Rima?

a. Ambaliya

b. Canza Matsugunni

c. Zaizayar Kasa

d. Duka wadannan

e. Babu daya daga wadannan

11. Ko hukumar gulaben Rima na daukar mataki don hana wadannan matsaloli?

12. Wadanne matakai take dauka?

i. bada sabon filin noma ko gida

ii. biyan kuddin fili ko gona

iii. taimakawa wajen ingantar sababbin gonaki da kauyuka

13a. Ko ka gamsu da matakanda hukumatr Rima ke dauka a wajen ayyukanta?

13b. Saboda me?

14. A ra'ayinka minene matsayin ayukan hukumar Rima

i. da kyau kwarai

ii. da jyau

iii. da dama

iv. ba dama

v. Allah wadai

15a. Ko kana ganin yadace abar hukumar Rima ta cigaba

15b. Saboda me?

16. Ko kana da wata shawara ko korafi kan ayukkan hukumar Rima?

(a) e (b) a’a

Wace shawara ko korafi?

SOKOTO STATE FLOOD DISASTER VICTIMS

DEPARTMENT FOR ECOLOGICAL AND RELIEF MATTERS

DISPLACED VILLAGES/TOWNS

S/No	LOCAL /GOVT.	DISTRICT	DISPLACED VILLAGES	CAMP CREATION	NO. OF HOUSE HOLD	POPULATION	REMARKS
1.	Gada		Tsaro Maikasuwa Gidan sulli Gidan Ayuba Gidan Bawa Bidaki Gidan Gamji Tudun Barewa Diboni Maikansa (Goronyo) Gawa Kuke Gidan Bashara Gidan Aduwa Dagindi Karazube Gidan Garba Basana (Shinaka) Jingilma (Tistse) Kanaji	Tsaro Maikasuwa Camp Gidan Sulli Camp Gidan Ayuba Camp Gidan Bawa Camp Bidaki Camp Gidan Gamji Camp Tudun Barewa Camp Diboni Camp Maikansa (Goronyo) Camp Gawa Kuke Camp Gidan Bashara Camp Gidan Aduwa Camp Dagindi Camp Karazube Camp Gigan Garba Camp Basana (Shinaka) Camp Jingilma (Tistse) Camp Kanaji Camp	4,621	35,150	All of these victims are out of their main settlements to the outskirts of their villages where they made temporary shelters as camps.

2.	Goronyo		Kagara Giyawa Kawadata S/Garin Magaji Rimawa Takakume Tuluske Talata Danwuro Shinaka Goronyo Town Bare Balla	New LGA Quarters Goronyo Ahmad Adamu Muazu Sec School Goronyo LGA Secretariat Goronyo High Court Goronyo Junior Sec. School Goronyo Islamiyya Goronyo Prim. Sch. Goronyo Kawadata Primary Sch. Kawadata Mosque Kuda-kuda Prim. Sch.	3,518	40,110	Assessment Completed
3.	Kware		Gidan Shirgi Gidan Rai Rai Mankeri More Rugga Liman Badageni Ujuli	Gidan Shirgi Camp Neighbours Neighbours Neighbours Neighbours Neighbours Neighbours	1,352	9,678	The other affected victims moved to their neighbours
4.	Wamakko		Kwalkwalawa Girafshi Wamakko Town Tugar Basu Gwamatse Dundaye Bakin Gulbi	Neighbours Neighbours Neighbours Neighbours Neighbours Neighbours Neighbours	2,120	22,513	All the affected victims reside with their neighbors that are not affected.

5.	Isa		Old Kamarawa Tudun Wada Tafkin Fili	Neighbors Neighbors Clinic T/Fili	2,196	14,792	Assessment completed
6.	Silame		Maje Gaukai Chaofal Dankala T/Abdu Kwala Gitta Rana Tungar Tozo Tunda Atto Shabra Tungar Mudi Jekanadu Taka Kastine Kulalu Falanje Gidan na Ayya Wajje Tankara laini	171 Maje Camp Gaukai Camp Chaofal Camp Dankala Camp T/Abdu Kwala Camp Gitta Rana Camp Tungar Tozo Camp Tunda Atto Camp Shabra Camp Tungar Mudi Camp Jekanadu Camp Taka Kastine Camp Kulalu Camp Falanje Camp Gidan na Ayya Camp Wajje Camp Tankara Camp laini	4,521	31, 534	All of these victims are out of their main settlements to the outskirts of their villages where they made temporary shelters as camps.
7.	Wurno		Gidan Kamba Gidan Bango Gidan Mai Tunga	LGA's Quarters LGA's Quarters LGA's Quarters LGA's Quarters	252 236 185 44		

			Lugu Ragar Gizo Barayar Zaki Koliyal Gidan Magaji Gidan Shinkafa Kagawa Rafi Shiyyar Salla Ubandawaki Shiyar Garkuwa S/Garia G/Magori Duhuwar Maranawa Zayawa Sabon Garin doka Yar Wurno	LGA's Quarters LGA's Quarters LGA's Quarters LGA's Quarters LGA's Quarters Neighbours Neighbours Neighbours Neighbours Clinic Neighbours Neighbours Neighbours Neighbours Neighbours	52 87 177 90 17 29 20 48 (2001) 99 27 35 44 32 18 9	14007	
8.	Rabah		Kuoya Tsamiya Rara Gandi B. Dankammawa Riji Mai Kujera Gwaddodi Gidanbuwii Tursa Yarsakawa Gandi A. Tofa Kabal	Neighbours Neighbours Neighbours Neighbours Neighbours Neighbours Neighbours Neighbours Neighbours Neighbours Neighbours Neighbours Neighbours	74 73 117 76 73 90 43 74 118 73 (2200) 200/1011	(24000)	The victims relocated to the neighbouring villages.

9.	Gwadabawa		Huchi Salame			192791	

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