

ASSESSMENT OF WORLD BANK INTERVENTION IN COMBATING POVERTY IN BAKOLORI IRRIGATION SCHEME IN NIGERIA

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ABSTRACT

The quest for robust food production and the importance attached to it for a productive population as well as the interventionist role of one of the supra international financial organisation; the World Bank, concatenate with a view to eradicating poverty, generating employment and checkmate the incidence of rural-urban migration in the Bakolori Irrigation scheme. The work adopts both primary and secondary sources of data. For the primary method the research uses questionnaire and In-depth interview while for the secondary data the work adopts the use of text books, journals, reports, documents and other relevant information sourced from the internet. The shrink of the role of the state after the 1980s led to the takeover of liberal internationalism as an instrument of free market, deregulation and privatisation, hence the work adopts Neo-Liberal Theory whose proponents include Kant, Hayek, Oakeshot, Friedman and Harvey. The theory emphasises the centrality of free market based on the reduced role of the state in economic decision making and the participation of international financial institutions like the World Bank for individual entrepreneurial development. The population of the study area covers smallholder irrigation farmers in the Bakolori irrigation area, comprising three Local Government Areas namely, Bakura, Maradun and Talata Mafara with total population of 38,400 farmers covered under the Transforming Irrigation Management in Nigeria, TRIMING programme. The sample size of the study stood at 400. Thus, three hundred and eighty copies of questionnaire were distributed, while twenty respondents were interviewed. For the In-depth interview the key informants were officials of the TRIMING Programme at Talata Mafara, staff of the Bakolori Irrigation Scheme and some prominent farmers under the programme. Findings discovered that youth especially graduates paid a lip service to irrigation farming in the area. Secondly, the work discovered that poverty in Bakolori irrigation is reduced to a bearable level due to the World Bank programme. Insecurity likewise threatens the smooth operation of the World Bank Transforming Irrigation Management in Nigeria TRIMING programme. This work therefore concludes that the impacts of World Bank intervention especially the TRIMING programme are both positively and negatively felt. Thus, it is recommended that more efforts should be intensified to educate the irrigation farmers especially the youth on how to boost their obtainable yields. Agro-allied processing plants should also be sited in the area in

order to resuscitate the already ailing agro economy of the Bakolori dam and security situation should be given a serious concern so that the robust food production could be maintained.

KEYWORDS: Bakolori, Poverty, Trimming, World Bank.

INTRODUCTION

The World Bank has become the major international agency that prescribes economic development policy to the world's nation-states in the last 74 years. It was strategically placed to offer advice to Sub-Saharan African countries after achieving national independence in the second half of the 20th century (Havnevik, Bryceson, Birgegard, Matondi & Beyene, 2007). Generally, the goals of the World Bank are anti-poverty inclined. Gros and Propokovych (2005) noted that a policy that emphasised poverty reduction did not necessarily contravene the World Bank ideology, inasmuch as such a policy relied mainly on market methods and continued to equate economic growth, especially in the agricultural sector, with development (Gros and Propokovych, 2005). Abbass (2014) submits that since its establishment in 1946, the World Bank, as part of its policies over time has evolved a policy of granting loans for the development of agriculture with a view to combating poverty (Abbass, 2014).

The Bank is owned by its shareholders, and was set up with a subscribed capital of \$ 37 billion, in which one tenth (\$ 3.7 billion) is paid in. The Bank operates by borrowing, mostly from the US, Japan, West Germany, Switzerland and the OPEC countries (Hodd, 1996). Its programmes on agriculture such as Agricultural Development Programmes, National Fadama Development Project and currently Transforming Irrigation Management in Nigeria, (TRIMING), are all aimed at reducing poverty and empowering the rural populace.

Another World Bank programme on agriculture in Nigeria was the Avian Influenza project which was carried out in 2006. It was a \$ 50 million emergency project with a three – year implementation horizon. Its objective is to help reduce the health risk to poultry and humans from highly pathogenic avian influenza. The project attempts to control the disease at the source in domestic poultry by setting up early detection and response systems for reporting the disease in both poultry and in humans.

The specific programme of concern in this study is Transforming Irrigation

Management in Nigeria (TRIMING) which is also a World Bank project in agriculture. It is a seven-year collaborative effort of the Federal Government of Nigeria with World Bank to diversify welfare improvements for the Nigerian citizens through improving access to irrigation and drainage services and strengthening institutional arrangements for integrated water resources management and agriculture service delivery in selected large-scale public irrigation schemes in Northern Nigeria (Abdurrahman, 2019). The International Development Agency (IDA) has approved a credit facility for the Federal Government of Nigeria (FGN) towards the cost of Transforming Irrigation Management in Nigeria (TRIMING) projects. The project is funded by Nigeria's Federal Ministry of Water Resources and the World Bank (<https://www.acdivoca.org/projects>). With Nigeria's projected population reaching 200 million (www.macrotrends.net), TRIMING under Bakalori Irrigation Project constitutes a strategic conduit for national food security that would guarantee Nigeria's sustainable economic growth and even produce more agricultural outputs for global consumption, hence lubricate the locomotives of the country's wheels of development in her quest to put priority on agriculture as an instrument of conducting international trade

and as a crucial silver lining as seen in the Doha Round of Trade in 2001 and an instrument of food diplomacy. TRIMING is currently impacting on the irrigation farming programme in the Bakalori Irrigation scheme. The introduction of this programme and specifically its launch under the Bakalori irrigation scheme is expected to alleviate poverty.

1.2. Statement of the Research Problem

Despite the strategies and various agricultural policies put forward by successive administrations in Nigeria in general and Zamfara state in particular, including TRIMING, there remains a food deficit and food insecurity, as there still exist, households that persistently lack the ability to either buy food or to produce their own. This work intends to find out the role of the World Bank's TRIMING programme in boosting irrigation farming under Bakolori Irrigation scheme with a view to identifying the factors militating against effective implementation of the programme.

Nigeria is the world's largest producer of cassava, yam and cowpea. It is also a major producer of fish. Yet, it is a net food-deficit nation and imports large amounts of grain, livestock products and fish. The average agriculture output growth between 2011-2020, which stood at 3.5% against the

backdrop of over 2.6% population growth rate, accounts for the present food insecurity, hunger and malnutrition in Nigeria (Aiyedogbon, Anyanwu, Hezekiah, Petrushenko, Zhuravka, 2022). Transforming Irrigation Management in Nigeria (TRIMING) Programme as one of those strategies initiated by the Federal Government in collaboration with the World Bank expected to address the problem of food deficit, poverty, and welfare improvements for the Nigerian citizens through increasing access to irrigation. The low performance of irrigation under the Bakalori project, despite the previous World Bank intervention led to the emergence of TRIMING. Therefore, the focus of this research is to examine the policy of TRIMING as a means of addressing food deficit, rural –urban migration and poverty. It should be noted that irrigation farming generally consists of the production of such crops as onions, rice, tomatoes, watermelon, maize, wheat, pepper, cucumbers, livestock rearing and fishing. Therefore, the work intends to fill the gap in the literature which preceded this research by examining the World Bank intervention in Bakalori Irrigation Scheme, specifically the TRIMING programme.

The research thus raised the following questions:

iHow has the World Bank (TRIMING) Programme in the Bakalori Irrigation Scheme impacted on the development of irrigation farming in Zamfara State?

iiWhat are the factors responsible for the World Bank TRIMING Programme in the Bakalori Irrigation Scheme in Zamfara State?

Aim and Objectives of the Study

The aim of the research is to assess the role of World Bank intervention in combating poverty in Bakalori Irrigation Scheme. It is therefore designed to achieve the following objectives:

1. To investigate ways in which the World Bank (TRIMING) programme has impacted on Bakalori irrigation scheme in Zamfara state.
2. To identify the factors militating against effective implementation of TRIMING.

Assumptions

1. World Bank TRIMING programme affects irrigation farming positively in the Bakalori irrigation scheme.
2. The World Bank TRIMING programme affects irrigation farming negatively under the Bakalori irrigation scheme.

Significance of the Study

In the Bakalori irrigation scheme, the World Bank has become key player for the development of irrigation farming. This work would investigate the tendencies of the Bank interventions specifically the TRIMING programme in the Bakalori irrigation project especially as it differs from the literature consulted which did not deal with the impact of the programme on Bakalori irrigation project. Thus, it's centered on the researcher's intention to fill the existing gap in the literature.

LITERATURE REVIEW AND THEORETICAL FRAMEWORK

Introduction

The role of the World Bank intervention and its effect have become like a wild fire or a common household name globally as the international financial institution stakes virtually in every sector of the economies of developing and less developed countries ranging from education, environment, agriculture, health and climate change. From Kathmandu in the south East Asia to Buenos Aires in the Latin American sub-continent to Kaduna in north western Nigeria, World Bank had played and is still playing roles that are critical to the economic development of

these countries. Some of its impacts were positively felt while majority accuses the Bank of conniving with the international finance capital to ruin and subjugate the countries struggling to throw away the yoke of poverty. However, the mandarins of the Bank and of course its apologists defend it as an institution ready to extend the tentacles of liberal credo to help the poverty –stricken parts of the world to combat poverty.

World Bank Intervention on Agriculture in the Third World Countries

Agriculture according to Titilola, is of great strategic importance to the nation and must be recorded the highest priorities in development plans and programming because food is essential for national survival. Titilola even reveals that historical evidence shows that there are few cases of successful national economic development in which agricultural growth and development; and abundant food security did not precede or accompany national development (Mbachu and Yesufu, 2007). This may be a reason why the Bank intervenes to help the Less Developed Countries LDC's developmental stride especially in the agricultural sector. Most African countries have implemented World Bank development policy and African

agricultural sector, in effect; demonstrate through continuous low growth rates and deepening rural poverty the impact of World Bank policies. Meredith (2006) points that Senegal in 1976 became the first African state to obtain a 'structural adjustment' loan from the World Bank. One by one, others followed (Meredith, 2006). However, the Bank activities have been criticising as destructive in transforming African farming systems and African peasantries (Bernstein, 1989). Thomas in Taylor and Williams (2004) notes that the IMF and World Bank will not be able to do their job effectively if they remain tied to structures that reflect the balance of power of the Second World War. These Bretton Woods institutions are accused of being power domineering hegemony, vehicles for the exercise of 'G-7 economic priorities or even for the pursuit of US foreign policy (Taylor and Williams, 2004). Similarly, Hentz in Taylor & Williams (2004) argues that the IFIs continue to be an important proxy for US interests in Africa (Taylor and Williams, 2004). The crux of the matter is the advanced capitalist nations of Western Europe and the United States carry out policies out of these institutions and implement them through. The major organ of international finance capital, where the state serves as an intermediary is the World Bank.

The state therefore is an agent of capital (Abbass, 2014). To bring into picture how state and international capital relate, the position of Gerald Berthoud is here desideratum. He posits that development has been promoted by two institutions; the state and the market, indissolubly linked by the project of modernity. He notes that, even as a welfare agency the state does not work against the market. Rather, it is a complementary institutional device which promotes the extension of the market (Sachs, 2010). Moreover, the IMF and the World Bank are label as agents promoting a dominant role for market forces in the economy, deregulation, devaluation of national currencies, retrenchment of workers in the public and private sectors, privatisation of public property, withdrawal of subsidies and government retreat in the area of social provisioning and welfare services (Toure, 2006). African states (including Nigeria, emphasis mine) and the World Bank have collaborated albeit as sometimes uneasy partners, in the pursuit of agricultural modernisation; moreover, the technical packages and detailed planning of agricultural projects have been supplied by the World Bank as well as other aid agencies (Bernstein, 1989). The World Development Report, 2008 emphasises the relevance of

agriculture as a key to poverty alleviation, especially for African smallholder farmers. It maintains that agricultural growth has unique potential to alleviate poverty in agrarian-based economies (Havnevik et al, 2007). However, rural development strategies (Cheru and Modi, 2013) throughout Africa have mainly benefit local elites, middle-class farmers and their foreign partners, to the detriment of the small-scale farmers in whose name these strategies were implemented (Cheru and Modi, 2013). Abbass (2014) contends that, the World Bank's solution of removing traditionalism for modernization (westernisation) with a belief that traditionalism impedes development is catastrophic. Hence, he notes that whenever the funding stops, the images of the mirage of rural development automatically cease and vividly unfold to its barest realities (Abbass, 2014). Moreover, there are instances in which government indifference hampers agricultural and rural development. Gros and Prokopovych, 2005 maintain that the powerlessness of poor farmers, vis-à-vis wealthy local landlords and their lack of voice in the national political process, government corruption by which aid for the poor such as fertilisers, seeds and credit are intercepted (Gros and Propokovych, 2005). Abbass (2014) clarifies that the major

features of the World Bank projects are all geared towards lending of money for a variety of projects in the under-developed regions of the world. One of the major challenges agriculture and especially irrigation farming is facing in the Third World Countries, is the exogenous interference of the Global Financial Institutions especially the World Bank. This Bretton woods institution has been playing roles that from the Third World perspective is perceived as a capitalist incursion in the agricultural production. Xi and Li, 2013, submit that in Sub-Saharan African countries (including Nigeria), agricultural development strategies and policies have been either externally or regionally (Africa) initiated, and have been poorly implemented at the country level (Cheru and Modi, 2013). For example, (Adejumobi, 2006) explains that the economic crisis, which manifested by the early 1980's in many African countries prompted the involvement of International Financial Institutions of the World Bank and the IMF in the design of economic policies in those countries. As a result, the Structural Adjustment Programme SAP emerged. He maintains that SAP was meant to deconstruct the barriers that stifled rural agricultural production, increase the income level of the farmers and adjust government expenditure

profile that was excessively in favour of the “parasitic” urban population. Adejumbi frowns at the SAP’s policies on agriculture. He notes that first; the SAP has succeeded in dismantling of administrative controls on the agricultural sector by abolishing state produce marketing boards. He points the aim was to yield higher income levels for the export producers. Secondly, he based it on exchange rate deregulation. According to him a state controlled exchange rate regime subsidised imports for urban consumers who have insatiable appetite for imported goods (Adejumbi, 2006). Gros and Propokovych (2005) vigorously argue that there were very few occasions in which the World Bank involvement in the rural sector went to the roots of rural poverty. They maintain that the poor farmers were denied access to such things as fertilizers, seeds and credit by the wealthy local landlords (Gros and Propokovych, 2005). Abbass (2014) holds similar view that the expectations of an overall food sufficiency and an enhanced condition of living towards alleviation of poverty have further become as elusive as ever (Abbass, 2014). Part of the reasons why the sector is performing low, one could argue may be in conformity with what Gros and Propokovych (2005) call “greater control”. They note that the Bank in the 1980’s moves

away from funding projects to funding policies. Furthermore, African countries imports fertilisers, tractors and water pumps, nearly every input that is needed to increase agricultural output (Gros and Propokovych, 2005). However, these implements are bought from industries in the parent headquarters where the Bank resides creating suspicion that the Bank may be deriving benefits from the sweat of the Third World Countries. Meredith (2006) holds a view that in comparing the state of agriculture between Africa and Europe, he noted that; determined to protect their own producers, industrialised countries operate a system of subsidies and tariff barriers that have a crippling effect on African producers. He implied that the total value of their agricultural subsidies amounts to 1 billion dollars a day - \$ 370 billion a year. Bellman (2019) reveals that in the U.S state of California, the Central Valley of California received up to \$416 million per year in federal water subsidies for the production of fruits and wine. Also, in India the state of Andhra Pradesh provides significant subsidies to develop irrigation for rice production. Studies however show that annual subsidies for irrigation projects in Andhra Pradesh were estimated at \$ 282 million per year between 2004 and 2008 (Bellmann, 2019). What this implies is,

developing countries, Nigeria most especially should rather devise means of applying subsidy on agriculture instead of relying on World Bank to do everything for them; so that their agricultural produce can be able to compete with the rest of the world agricultural produce in a competitive global market, while still retaining lower cost at the home market. This will help reduce the dumping of and insatiable appetite for foreign agricultural products at home.

World Bank Interventions on Agriculture in Nigeria

The place of agriculture for human development is unquantifiable. In Nigerian specific example, it has been explained that development in country is incomplete without special focus on agriculture (Yahaya, 2002). Different scholars differ on the roles or impacts the World Bank plays on agriculture in Nigeria. Akinola (1995) laments that scholars of Nigerian agriculture and political economy differ on the extent to which programme outcomes are influenced by the Bank or by local circumstances. He further reveals the most vocal view being that espoused by Marxist or Marxian academics and supported largely by macro data or northern Nigeria material. He maintains that

the scholars have suggested that the Bank's increased presence in Nigerian agriculture since the 1970's have reflected a global campaign to 'self-liquidate' the peasantry in order to promote capital-intensive agriculture. Another school of thought that, Akinola points was that of Ibadan University and other institutions. According to him this school of thought describes the Bank presence as a price worth paying to make peasant food-farmers more responsive to technical change or to make incentives. The third perspective sees the Bank as a *hobble giant*, global in outlook but lacking its own executive agency as well as the institutional capacity to assist the poorest even if (or where it) had wanted to do so (Akinola, 1995). Ekong (1992) explains that the World Bank's first post-independence association with Nigeria's agriculture had been in 1971 when it assisted the then government of Western Nigeria in the rehabilitation of its cocoa farms. By 1985, the World Bank had been involved in twenty seven (27) agricultural and rural development related projects. With these projects consuming almost U.S \$ 1,367.7 million, he maintained that the World Bank has become the single most prominent multilateral organisation in Nigeria's agricultural scene (Ekong, 1992). Dunmoye expresses similar view when he

notes that the Bank's involvement in agriculture started in 1974, and by 1978 it had given thirteen agricultural related loans to the tune of \$ 292.2 million out of a total loan of \$ 947.9 million which covers other sectors, such as education, transport and electricity. He describes Nigeria as (then) by far the largest recipient of the World Bank's loans in Sub – Saharan Africa (Dunmoye, 1982). The World Bank begins its second phase of agricultural projects in 19 states in September 1980. The Bank established projects in Kwara, Niger, Oyo, Ondo and Ogun states (Oculi, 1986). Titilola (2007) maintains that soon after 1983, the agricultural domestic supply began to fall short of demand due to the evolving structural changes in the Nigerian economy as a result of the distortions affected the agriculture and food production, he further posits that such a situation created a gap between production and supply of food and agro-industrial raw materials. The situation he opines led to the introduction of the structural adjustment programme (SAP) in July 1986 (Mbachu and Yesufu, 2007). In the area of food policy, Oculi (1986) demonstrates the influence of the World Bank in Nigeria's Ministry of Agriculture especially on agricultural policy in general, and food policy in particular (Oculi, 1986). Wallace (1980) reveals the

extent at which the Bank relates to Nigeria: the three World Bank Projects in Sokoto, Bauchi and Kaduna states were funded by World Bank loans, state and Federal Government and focus on improving wet season agricultural output by supplying seeds, fertilisers, pesticides to farmers within their existing farming system. The outputs as Abbas elucidates has been persistent shortage of food production in rural Nigeria which has also been attributed to the application of such chemical fertilisers, pesticides and they are also responsible for soil erosion etc which are injurious and harmful to the farms. He therefore blames the agricultural programs like RBDAs, ADPs and Dam constructions as the causative agents for the crisis (Abbas, 2014). The loan as posits by Oculi is tied to purchasing the technological inputs and in this way consolidating the linking of Nigerian agriculture directly with the industrial-export sector of the multinational corporations (Oculi, 1986). This neoliberal economic institution partakes in most of the country's economic affairs notably agriculture. To back this argument Wallace (1980) notes that, the World Bank projects involve extensive foreign loans and both involve dependency on imported machinery, expertise and agricultural inputs such as fertilizer,

pesticides and new seeds. She defends the Bretton Woods institution as being the one promoting agriculture in Nigeria. Wallace explains that; World Bank projects and modern irrigation schemes tackle the problem of increasing the production of surplus food for the urban market by altering the cropping patterns. She also implies that, these projects greatly increase the penetration of commercial farming into the rural areas, and attempt to force the farmer to use his land primarily to make money –to grow crops for sale, rather than agriculture with food as priority (Wallace, 1980). High Yielding rice and wheat seeds (Akinola, 1995) elucidates that they produce ‘a large edible proportion in the total dry matter’ per unit weight. He maintains that High Yielding Variety increased output to both labour and capital and without much input HYVs produce higher yields than unimproved seeds. He also notes that they are less labour intensive (Akinola, 1995). The High Yielding Variety of crops introduced by the World Bank has significantly affected the quality and proteineous content of the food produced and as such relegated the local variety of crops Wallace (1980). But Abbass (2014) notes that the HYVs are more of chicken fed than human consumption. Both Wallace and Abbass agree that the World Bank projects

have favoured the growing of maize crops, primarily for animal feed as it is not very palatable. Furthermore, Abbass unequivocally submits that the World Bank is the major thrust of the agricultural and rural projects in Nigeria. However, he locates the Bank’s fault as being the imposition of external forces on Nigeria’s drive to development. Thus, the withdrawal of local variety seeds compatible with the local environment or conditions was the greatest tragedy the peasantry is paying dearly (Abbass, 2014). Indeed, the peasants are rendered irrelevant even to their own rural communities.

To further expose the conspiracy of international capital and neo –liberal economic policies of the western capitalist societies, Rodney (1972) reveals how the west rejected anything that has to do with African agriculture, he exposed that in Nigeria, the oil was still sent to Europe as a raw material for industry, but European industrialists did not then welcome even the simple stage of processing groundnuts into oil on African soil (Rodney, 1972). Hence, spatting on the corpse of agriculture in the country, thus the relationship between Nigerian agriculture and capitalism was a long one. In the first place, (Abbass, 2014) the agricultural sector was gradually

incorporated in the main stream of the world capitalist market economy. Secondly, the state power was used to force or reorient peasants' allocation of factors of production to suit the colonial exigencies (Abbass, 2014). It is with strong point one would argue that the contact Nigeria had with the international finance capital does not in any way aided the agricultural development in terms of robust food production, as farming in Nigeria is still largely carried out manually. Rodney (1972) points a similar argument that; in centuries before the contact with Europeans, the overwhelming dominant activity in Africa was agriculture. However, this vital economic activity is sunk into the quicksand of economic destitution and relegated to the background. He notes that the only change agriculture witnessed in Africa was the introduction of iron tools, such as axe and the hoe (Rodney, 1972). The point here is Rodney was rhetorical in the narrative as such implements are no longer relevant in exploitation and tilling of lands to meet the demands of modern age. The World Bank gangsterism on the Nigerian economy is obvious; the latent collaboration between the state and the World Bank on Nigerian agriculture was in the area of granting loans by commercial banks. Under the structural adjustment program preached by the bank,

commercial banks were directed to give up to 35% of their loans to manufacturing sector and 40% of the merchant bank loans, against agriculture which was allocated 15% of commercial bank loans and 10% of merchant bank loans (Ake, 1996). Hence, agriculture in Nigeria has long been regarded as a neglected stepchild of Nigeria's development. Based on the above, Ake concludes that "agriculture has not been given the importance it deserves, and agriculture policy and development have tended to disappear in the struggle between the state and political elites".

In order to exonerate itself from the accusing fingers of the third world countries, the World Bank uses two of its reports; the Berg report entitled *Accelerated Development in Sub Saharan Africa: An Agenda for Action (1981)* and the *World Development Report 1982*. These reports (Havnevik et al, 2007) identify African state policy intervention, particularly in the form of producer subsidies and parastatal marketing as key problems to resolve in order to achieve higher agricultural productivity (Havnevik et al, 2007). In another perspective, to construct a link between Nigeria's agriculture and the World Bank, Titilola (2007) argues that in Nigeria, the increase in food prices occasioned by the structural adjustment programmes (SAP) led

to violent crisis and threatened the security of the state. Abbass supports this view that, the expansion of the rural bourgeoisie paved way for the social erosion of the rural poor with phalanxes of state machine which have all together produced new dimension for appropriation, accumulation, class alliances and class struggles (Abbass, 2014). Thus, it can be argued that the Bank's intervention in the agricultural sector fans the embers of insecurity and posed challenge on the corporate existence of the Nigerian state by widening the gap between the owners of capital and the poor small holder farmers. Benazir Bhutto once remarks that: huge economic disparities between social classes in a society strain national unity, creating a gap between the rich and the poor (Kegley and Raymond,). cheru and Modi, 2013 argue that no country will enter into industrial age without developing the agriculture (Cheru and Modi, 2013). In Nigeria the sector is not only neglected but underrated as an activity of rural dwellers and peasants. The issue of non-performance of agriculture should not be taken as an excuse because in the past other countries had the same challenge but they overcome it. Xi and Li, 2013 note that the so-called emerging countries such as China, India and Brazil, experienced long periods of chronic hunger and food insecurity as a result

of the underdevelopment of their agricultural sectors (Cheru and Modi, 2013). As a result of their commitments they were able to transform their countries to industrialisation thereby becoming important players in the global economy. Lack of coherent and sustainable policies on agriculture in Nigeria starve her of fighting hunger and poverty one could argue. for example in the Bakalori, the land is enough to produce what can feed a significant population, however this could not be realised. Simply put exogenous interference of institutions such as the World Bank and of course the intervention of strong men representing the neo-liberal credo of the Bank in collaboration with the state agency to empower the capitalist incursion in the country's agriculture as opposed to the peasants affects the activity of agriculture in Nigeria. This is why Oculi strongly accuses and locates the ostensible intention of the Bank as the creation of capitalist farmer-class in rural Nigeria, he proved that the Bank did the same in the Phillipines in 1971 (Oculi, 1986). Xi and Li, 2013 argue that because of her good policies on grain production and food policy, China grows sufficient food to meet the needs of a fifth of the world's population on less than a tenth of the world's arable land and with a quarter of its global water resources (Cheru and Modi, 2013). In

conformity with the position of Xi and Li, Oculi cites the development of agriculture in China to the Chinese minimization or elimination of the dependence on foreign technology for equipment and spare parts (Oculi, 1986). Comparatively, the Bakalori dam is neglected by the Nigerian state waiting to be taken care of by the World Bank. However, as the most expensive water reservoir in West Africa, it could not feed even people of Maradun. Thus, hunger, poverty, unemployment and the spillover effect of rural-urban migration are ubiquitous in the area. In terms of heavy dependence and the lip service paid to agriculture, without considering the growing population, Nigeria could best be described as a 'grown up man still wearing diapers'. Quintessentially, Ake (1976) describes this kind of dependence as an exploitative relationship which impoverishes Africa materially and spiritually (Ake, 1976).

Irrigation Farming in Nigeria

Irrigation as a method of efficient and prudent management of water for agricultural purposes is not a new phenomenon in Nigeria. The colonial administration started irrigation pilot projects in Nigeria in 1925, although with limited success.

The impact of the World Bank on irrigation especially rice farming was captured by Odihi (1993) that with the aid of the Bank, a dam was constructed on the Alau lake about 14 km south of Jere in Borno state during the second half of the 1980s. He maintains that the result was an admixture. While the rice farmers were the target for increase production, on the other hand it intensified the aridity thereby causing food scarcity and financial insecurity. He opined that these were as a result of frequency, extent, depth and duration of floods in Jere Bowl (Proceedings of National Policy Workshop, 1993:2). However, Atala and Voh (1993) recognise the utilisation and sustainability of Fadama with particular reference to input and extension delivery. They also locate the centrality of water pumps and fertilisers (Proceedings of National Policy Workshop, 1993). The Bank also supports a number of other analytical studies, including a review of the rural and agricultural sector institutions (prepared together with the African Development Bank and the International Fund for Agricultural Development) an inter study of agricultural research and extension services and a report on the forestry sector. It is likewise noted that the highly successful Fadama II project is the only major Bank operation that has attempted to tackle the

agricultural issues in Nigeria. The report maintains that it was to allow communities on Fadama land (low lying plains) to determine their own needs and invest in infrastructure needed to raise agricultural productivity such as farm- to market roads, shallow wells along livestock trails or irrigation improvements. The International Food Policy Research Institute evaluation which involved the 12 Bank funded Fadama states, reveals that household incomes of beneficiaries increased by about 60 percent within one year of the initiation of the project (Nigeria Country's Assistance Evaluation, 2010).

The Bakalori Community and the Irrigation Project

Bakalori is the name of a rural community (Yahaya, 2002) in Sokoto (now Zamfara state) North West Nigeria. The community which is situated in Maradun Local Government Council of Zamfara state is an agrarian area with rich fertile soil for both wet and dry season farming. It consists of predominantly peasant population whose major occupation is farming. The nature of their farming has been subsistence and hardly makes a market profit. The Bakalori irrigation project was commissioned in 1979 and construction of a major portion of the

scheme was completed by 1983. In total 23,000 hectares were developed, of which 15,000 ha were planned for sprinkler irrigation and 8,000 ha for surface irrigation by gravity. The sprinkler systems installed in the area developed for pump irrigation are no longer operational. The area with functioning irrigation is therefore limited to 7,500 ha irrigated by gravity. The site hosts approximately 22,000 farmers. Recently information indicates that there are a total number of 38,400 farmers across the three local governments of Maradun, Bakura and Talata Mafara (ESMF-Proposed TRIMING Project Final). Current crops being cultivated include rice, maize, cowpea, Sweet potato, groundnut, vegetables, sugarcane, millet and guinea corn. Fishery activities are ongoing in the area (ESMF for proposed TRIMING project –Final). Adams (1985) the Bakalori dam is situated on the western edge of the basement complex rocks across which the River Sokoto flows in its upper reaches, and stores water to irrigate the 30,000 ha irrigation scheme constructed on flood plain and terrace land downstream, the Bakalori Agricultural Project. The farmers in the area specialised in cereal and vegetable farming. Given the abundant water resources in the country and its potential for increasing agricultural production in Nigeria, the

Federal Government established the River Basin Development Authority (RBDA) (Yahaya, 2002). Bakalori irrigation scheme (Oiganje, Igbadun, Ahmed & Oliver 2015) is directly being supervised by the Sokoto Rima River Basin Development Authority (SRRBDA). Bakalori Reservoir is being fed by Rivers N'kaba and Tarka within Niger and join river Rima after entering Nigeria. It has a capacity of 450 million m³ lake area and length of 8000 Ha and 19 km and a spillway discharge of 1650 m³/s at the time of construction in 1979. The dam had 450 million cubic meters water storage capacity but its capacity is estimated at 351,010,027 m³ in 2013. The Bakalori irrigation scheme has its project office in Talata Mafara, Zamfara state and was commissioned in 1983. A huge dam on the Sokoto River at Bakalori, built by the Italian consortium that constructed Ghana's Volta River dam. More than three miles long, including its earth-filled flanks, the dam is longer than Aswan. It is the most expensive irrigation project in West Africa. Yet its main purpose is to irrigate a mere 70,000 acres. The project (Oiganje, Igbadun, Ahmed & Oliver, 2015) covers three local governments: Talata Mafara, Bakura and Maradun, commanding 23000 hectares; 65% irrigated by sprinkler system (15000 ha). They reveal several

setbacks within the irrigation system at Bakalori. They explain complete nonfunctioning of the hydroelectric power station at the Dam. Failed sprinkler system originally covering 15000 hectares of which 3000 ha is now converted to surface irrigation through the use of tube wells. The failed dyke close to the rice area needs urgent intervention, de-silting of the drainage ditches across gravity fed areas needs to be done, because it has made the drainage ditches indistinguishable from adjacent farm lands; hence farmers now use drainage section for farming operation which was not the primary purpose which was rather to remove excess water from the system (Oiganje and Igbadun, Ahmed & Oliver, 2015).

The original goal (Yahaya, 2002) of the project was to supply irrigation water to the estimated population in the project area of about forty to fifty thousand farm families. The majority of the peasant farmers on this valley engage in both rain fed and traditional irrigation farming in the dry season. Yahaya noted that the project was designed to support agricultural and economic development in the region. The project was designed to supply irrigation water to 11,200 km area by gravity and 12,000 ha area by sprinkler and power capacity of 12,000 KVA of electricity.

It also involved in the construction of 200 km road network and assisted farmers by providing them with needed inputs (Yahaya, 2002). The economic appraisal of the scheme Adams (1985) points that was depended on the possibility of double – cropping throughout the area, on the development of a commercial sugar estate, and the production of tomatoes for local processing facilities which it was hoped would develop. The reservoir of the dam he noted covers over 4000 ha, storing 414 mm³ of water (Adams, 1985). But the production of both sugarcane and tomatoes in the Bakalori is not yet to any appreciable level.

Yahaya, (2002) maintains that the dam has 450 million cubic metres water storage capacity. The reservoir he explained covers 8,000 hectares and extends some 119 km up stream, he elucidates that, during the 1979, the project was completed. Fifteen km - supply canal carries water from the dam down streams of irrigation area where the water is distributed through several hundreds of kilometers secondary and tertiary canals.

The Bakalori irrigation project was described as a ‘confluence of devastation’. A serious clash erupted when people of the area were forcefully compelled with the power of a barrel of gun to vacate their residents ready to be taken over by the dam construction.

Yahaya (2002) elucidates that the fracas resulted in the death of fourteen farmers, a police man and fifteen others. However, the escalation of the crisis by the end of June 1980, led to further loss of less than three hundred and eighty six people, the looting of property and burning of valuables such as granaries, houses and vehicles (Yahaya, 2002). This situation was an attempt by the peasants to demand for justice. The above scenario captures exactly the statement of Sachs (2010) that economic growth is of cannibalistic nature; it feeds on both nature and communities, and shifts unpaid costs back onto them as well (Sachs et al, 2010). Any benefit that the Bakalori dam may bestow on the poverty stricken people of the north are unlikely to offset the tragic damage that has already begun. People in forty villages and a town of 14,000 inhabitants are being uprooted; it appears that only a minority are to be moved into the irrigated area. The inevitable failure of corrupt officials to pass on compensation money to those disposed of their land caused a riot at the end of August 1978, which put several police in hospital. When the construction of Bakalori Dam began, the people of Maradun area including the neighbouring villages were shocked when they were given an order to leave for new settlement. Worse still was the

inability of both the government and the company in charge of the project to compensate them considering that leaving their old settlements would mean losing their means of survival. Beckman in Yahaya (2002) accuses the Italian firm for bringing suffering to the project area since 1975 when it entered the area. (Oculi, 1986, Bangura, 2020) flatly reveal how the project cost the people of the Bakalori farming community. They opined that the project disorganised the farming lives and systems of 60,000 well-established farmers at Talata Mafara and drowned under water the homes, farms and fruit trees of another 13,000 people at Old Maradun in an area covering about 4,200 hectares. They also contend that it had disrupted water supply to 20,000 hectares of land that was traditionally farmed by river-bed irrigation (Fadama) downstream from Talata Mafara to Argungu. As a result Oculi concludes 24,000 hectares of fertile land have lost to well establish farming systems in order to irrigate 25,000 hectares. He notes the hardship encountered by people of the area, as a result of resettlement as pathetic, such that due to lack of water in the New Maradun, many families sold their small animals (goats, sheep, chickens) in order to buy water for their wives; while those who were farming had to travel eight to ten kilometers

away to the farms. As a way of compounding their situation, in October 1979, guinea corn was destroyed when it was almost ready for harvest, with no compensation paid, warning or justification to the farmers (Oculi, 1986, Bangura, 2020).

The number of peasants had been decimated, many of them got the meagre payment and migrated, yet others abandoned farming altogether (Dunmoye, 1982).

The World Bank intervention on agriculture especially with particularistic example of the Bakalori irrigation should reflect what Samir Amin referred to as “economic miracles of crop expansion”. Amin notes the miracles of groundnut on the economy of Senegambia, cocoa on the Ghanaian economy and multi-crop production on the Ivory –Coast economy in the 1950’s and 1960’s (Freund, 1981).

The ESMF document exposes the state of Bakalori dam as deplorable in its propose TRIMING project; the Bakalori Irrigation Scheme has depreciated badly primarily due to a lack of maintainance. Agricultural produce extensively cultivated within the scheme, are not adequately exploited due to the increasing lack of access roads to the farms, lack of storage or processing facilities and ineffective Water Users Association (WUAs) which have been established in the

Bakalori irrigation area, but which appear to be unable to fulfill their intended purposes. It further describes the failures of the dam which is located on the River Sokoto and designed to function as multi –purpose dam for irrigation, water supply, hydropower generation, flow regulation and flood protection has been reduced to a moribund structure facing challenges ranging from general lack of maintainance, loss of the hydropower generating capacity, silting of the primary, secondary and tertiary canal systems, breakdown of parts of the primary canals and secondary canals, weeds growth in the canals and pests infestation of the project, especially quella birds, rabbits and termites (ESMF for proposed TRIMING – Final,).

Gaps in the Literature Review

There are factors which have necessitated this research on the Assessment World Bank intervention in combating poverty in Bakolori Irrigation Scheme in Nigeria among which is the extant literature which have preceded this work, talk more on the Bakalori irrigation scheme and the World Bank. For example, Wallace (1980), Dunmoye (1982) Adams (1985), Yahaya (2002) and Abbass (2014) have established the position of irrigation as central to the development of

agriculture and even economy generally. Their writings are classics as far as the political economy of Nigeria is concerned, but are limited in investigating the effectiveness of the role of World Bank intervention in converting poverty: A focus on Bakalori Irrigation scheme with a specific emphasis on the World Bank programmes and policies such as the Transforming Irrigation Management in Nigeria TRIMING. This research is aim at bridging the gap identified in the said literatures and make its own contribution to knowledge.

2.10. Theoretical Framework

This study was conducted using a Neo-Liberal Theory of Development. The proponents of this theory, according to Raymond Plant study of neo-liberal state is based on the writings of Hayek, Oakeshott and Nozik (Venugopal, 2015). By the early 1980s, neo-liberalism was used in a very different way, as it came to describe the wave of market deregulation, privitisation and welfare state withdrawal that swept the first, second and third worlds. By the early 1990's, neo-liberalism had become elevated to an epochal phenomenon, and was often used as loose short hand for a prevailing dystopian zeitgeist. Neo-liberalism draws on the

conclusion of orthodox neoclassical economics and rational choice-based theory of human behaviour to advocate a tightly delimited role for the state in regulating economic activity (Venugopal, 2015). Belief in the moral necessity of market forces in the economy therefore, defines the core value of this theory. According to the liberal perspective, the world economy is beneficial factor in economic development, interdependence and economic linkages of advanced economies with less developed economies tend to favour the latter societies. Through trade, international aid and foreign investment the less developed economies acquire the export markets, capital and technology required for economic development (Gilpin, 1987).

According to the theory therefore, its central arguments are:

- i. At least, ideally, politics and economics exist in separate spheres. Markets should be free from political interference for the sake of efficiency and growth (Smith, El-Anis and Farrands, 2011).
- ii. Markets are allowed to operate freely.
- iii. States should be able to trade openly with each other.
- iv. The role of the state in economic affairs should be kept to a minimum.

- v. The role of the international norms and institutions in facilitating international cooperation.

Relevance of the Neo-Liberal Theory of Development to the Study

Thus the link becomes glaringly obvious in an attempt to explain human liberation through entrepreneurial freedoms. For example, to justify this nexus, Harvey (2005) adumbrates neoliberalism as ‘a theory of political economic practices that proposes that human wellbeing can best be advanced by liberating individual entrepreneurial freedoms and skills within an institutional framework characterised by strong private property rights, free markets and free trade’ (Regmi, 2016). Through the IMF and World Bank, Neo-liberal ideas have translated into a “package of measures” which proved to be very liberal and exalt the virtues of the market, which are then offered to the developing countries through aid and structural adjustment. Thus the World Bank intervention under Bakalori irrigation project is being supported by the Bank in order to liberate the farming community to become self-sufficient in their entrepreneurial activities which may alleviate poverty and sustains prosperity.

Criticisms of the Neo-Liberal Theory of Development

The theory is criticised on the issue of cooperation. The realist opprobrium on the theory was how it is possible to assess realistically the possibilities for cooperation and peace between states unless we recognise the role of anarchy in creating suspicion and distrust. The realist contends that if one ignores or reduces the importance of such considerations, thinking can quickly become utopian with little relation to reality.

Realists also argue that states often have fundamentally different interests in which the drive for relative material gains makes conflict inevitable and part of the eternal landscape of international relations. The theory is also criticised on the basis that market reform policies fail to meet their own criteria for success in terms of stabilisation and growth, and point to de-industrialisation and the lost decade of development in Africa and Latin America during the 1980's as evidence. Another critique is that neoliberal policies are excessively technical, economic, 'cookie-cutter', context-blind, and politically naïve.

Additionally, neo-liberal institutions have a potential inherent in them to subvert the state sovereignty. Thus, the neoliberal model of development (Neilson 2020) has been

accused of delivered recurring global accumulation crises, deepening ecological instability, destructive zero-sum competition between unevenly developing nation states, and escalating social security and inequality. However, the theory could be described as an instrument of humanitarian gesture aim at liberating human race from the dicey tendency of poverty and encourage individual sacrifices aim at prosperity for economic liberation of human wellbeing.

The theory is also a factor for checkmating executive highhandedness of some leaders especially in the third world countries who are known to have developed a 'rent seeking' culture. The spread of democracy is just one factor that liberalism cites to account for the rise of complex interdependence.

After the World War II, wealth began to be distributed around the world to more economies as well, instead of being concentrated in Europe. The spread of wealth by the United States through its aid packages such as Marshall Plan to war torn Western Europe is an example and by the 1980s, newly rich economies sprang up in Asia: in South Korea, Taiwan, Singapore, and Indonesia. This new distribution of wealth meant that more countries and their economies were tied together more than ever before.

In fact, Neo Liberal Theory helps in strengthening democracy and encourages social justice in the allocation and distribution of resources in the society.

METHODOLOGY

Research Design

This work is a case study survey as such applied primary method including questionnaire and interview. The primary data were collected through the use of questionnaire and oral interview as well as personal observation. For the interview method, the technique enabled the researcher to generate extensive information that would otherwise not easily be derived by using the questionnaire technique and it allows the expression of opinions freely. The study adopted cluster survey method because the area under study has a large population. The application of this design is paramount considering the fact that a significant percentage of the data is presented in a statistical form. Cluster Survey method which involves the collection of data from a selected portion of large population so as to deduce information about the population as it is very difficult to study the whole population. This is based on the fact that a

proportion of a large population can represent the whole population.

Location of the Study Area

The study area which is Bakolori Irrigation area is located in Zamfara West in Zamfara state comprising mainly three neighbouring Local Government Councils of Bakura, Maradun and Talata Mafara. The dam area is covered around the three Local Governments and the area is largely populated with large scale irrigation farmers.

Population of the Study Area

The dam land area covers 4000 ha; storing 414mm³ of water (Adams, 1985). However, Yahaya (2002) the reservoir covers 8,000 hectares and extends some 119 km upstream. The population of the study covers smallholder irrigation farmers in the Bakalori irrigation area, comprising three Local Government Areas. The LGAs are Bakura, Maradun and Talata Mafara with total population of 38,400 farmers covered under the TRIMING project (ESMF for proposed TRIMING project –final: 39). Two groups of respondents were identified in the course of conducting this work viz:

1. The farmers covered under the Bakolori Irrigation Scheme.
2. The officials of the World Bank office as well as staff of the Bakolori Irrigation Project at Talata Mafara.

$$n = 400 \times 38. \frac{38,400}{38,400}$$

$$n = 400$$

Based on the above formula computed, the sample size stood at 400.

However, to have a proportion of the respondents, the formula is also used to determine the number of copies of the questionnaire distributed to 400 respondents.

$$\frac{n \times n_i}{N}$$

Where n= sample size

n_i = population of the local government

N= Population size

Sample Technique and Sample Size

The sampling size is a portion population of the study. Using Taro Yamane formula (1967) for the determination of sample size, purposive sampling technique is employed in selecting the sample from the study population. There are 38,400 smallholder farmers and are dispersed among the three Local Government Councils.

The Taro Yamane formula is arranged as follows:

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

Where n= the sample size

N= the population size

e= error of sampling (0.050)

$$n = \frac{38,400}{1 + 38,400} (0.05)^2$$

$$n = \frac{38,400}{1 + 38,400 \times 0.0025}$$

Sample Size Determination

The research used purposive sampling technique. Thus, cluster sampling technique was employed.

Therefore, nine Villages from the three outline Local Government Councils were randomly selected with 44 copies of the questionnaire administered in each Village. In Bakura Local Government Rini, Birnin Tudu, and Yar Kufoji were selected. While in Maradun, Gidan Kano, Maradun North, and Dosara were selected. And in Talata Mafara, Mafara, Tungar Miya, and Mutuzgi were also selected.

Methods of Data Collection

The instruments used in this work include the administration of questionnaire and conduct of in depth interviews (IDI).

The Questionnaire

The copies of the questionnaire were used in conducting this work and administered to the respondents. It was prepared to get information from farmers as beneficiaries of the World Bank TRIMING programme.

The In-depth Interview

The in-depth interviews were also used. Snow ball technique was applied which enabled the researcher to be linked with one respondent after another. The method allowed the researcher to source information about the assessment of World Bank intervention in combating poverty in Bakolori Irrigation Scheme in Nigeria. The method of questioning that was employed in conducting the interview was open ended questions; questions where respondents were allowed to express their views freely on the topic. The respondents under this method are officials of the TRIMING programme, staff

of the Bakalori irrigation project and some prominent farmers under the programme.

Research finding

The data is presented using triangulation because the research which happened to be a case study uses mixed method which includes quantitative and qualitative data as well as personal observation. The aim is to enhance in the overall conclusions drawn from the study.

Analysis of Tables

Table 1: Gender Distributions of

Respondents

S/N	Variables	Frequency	Percentage
1.	Male	318	79.5%
2.	Female	82	20.5%
	TOTAL	400	100%

Source: Survey Research, 2024

Table 1 which dealt with the gender distribution of the respondents clearly shows how male gender dominates irrigation activity in Bakalori irrigation area under the World Bank Agricultural Programme called TRIMING, this is because 79.5% of the irrigation farmers fall under the category of masculine gender which commands majority

of the irrigation farmers while remaining 82 farmers i.e 20.5% are females.

Table 2: Occupational Distributions of the Respondents

S/N	Variables	Frequency	Percentage
1.	Rain fed irrigation	242	60.5%
2.	Dry season irrigation	158	39.5%
	TOTAL	400	100%

Source: Survey Research, 2024

The above table indicates that out of 400 farmers, 242 are rain – fed irrigation farmers, i.e the rain – fed irrigation farmers form 60.5% of the entire population of the irrigation activity under the TRIMING programme. Thus, the dry season irrigation farmers under the Bakalori irrigation Project are 158 with 39.5% percent.

Table 3: Age Category of Respondents

S/N	Variables	Frequency	Percentage
1.	Below 20years	113	28.25%
2.	21 – 30 years	173	43.25%

3.	31 – 40	112	28%
4.	41 – 50 years	02	0.5%
	TOTAL	400	100%

Source: Survey Research 2024

Age category of 21 – 30 years dominated the irrigation activity as represented in table 4.3 with the percentage of 43.25% while age category of below 20 years follow it with 28.25% and 28% fell on the age category of 31 – 40 years. The least age category that is not actively participating under TRIMING programme is 41 – 50 years with a minuscule percentage of 0.5%.

Table 4: Educational Distributions of Respondents

S/N	Variables	Frequency	Percentage
1.	S.S.C.E	90	22.5%
2.	DIPLOMA	76	1.9%
3.	B.sc & H.N.D	38	09.5%
4.	None of the above	196	49%
	TOTAL	400	100%

Source: Survey Research 2024

Educational qualification of the respondents as represented in table 4.4 shows those without formal education dominating the irrigation farming under the TRIMING

programme in the Bakalori irrigation project. They form 49% of the active farmers followed by those with S.S.C.E result with 22.5%; while university and polytechnic graduates having only 09.5% in the activity. Diploma holders control 1.9% of the irrigation farmers. What this connotes is; much has to be done to enlighten educated people especially the teaming unemployed graduates to embrace the age – old economic activity.

Table 5: Farmers Awareness about TRIMING

S/N	Variables	Frequency	Percentage
1.	Yes	397	99.25%
2.	No	03	0.75%
	TOTAL	400	100%

Source: Survey Research, 2024

It can be argued that TRIMING has done well in sensitising the farmers in creating awareness on the programme as table 4.5 revealed that out of the 400 respondents, 397 i.e. 99.25% responded in affirmative noting that they are aware of the World Bank Programme. However, three farmers with 0.75% revealed that they are not aware of TRIMING.

Table 6: World Bank (TRIMING) Specific Interventions to Farmers

S/N	Variables	Frequency	Percentage
1.	Agro chemicals	153	38.26%
2.	Improved seeds & extension services	91	22.75%
3.	Monetary incentives	156	39%
	TOTAL	400	100%

Source: Survey Research, 2024

Table 4.6 noted the impact of the World Bank specific intervention under the TRIMING programme. 38.26% of the respondents confirm the receipt of agro chemicals from the Bank as intervention, while 22.75% received improved seeds and extension services; however, 39% noted that they received monetary incentives under the programme.

Table 7: How World Bank Incentives affect Irrigation Farming

S/N	Variables	Frequency	Percentage
1.	Positively	178	38.26%
2.	Negatively	91	22.75%
3.	No effect	156	39%
	TOTAL	400	100%

Source: Survey Research, 2024

Table 4.7 has significantly provided a genuine reason how the incentives affect irrigation farming under the Bakalori irrigation project B.I.P. Thus, 44.5% of the respondents agreed that the incentives affect them positively while 31.75% disagreed; they opined that the incentives affect them negatively. There are others also who do not either been affected positively or negatively 39% form the basis of this category who have not felt any effect of the incentives given by the TRIMING.

Table 8: Whether Dam's Facilities Are in Good Shape

S/N	Variables	Frequency	Percentage
1.	Yes	363	90.75%
2.	No	37	9.25%
	TOTAL	400	100%

Source: Survey Research, 2024

The dam's facilities according to data in table 4.8 are in good shape. 90.75% of the respondents are of the opinion that the Bakalori dam which is the back bone of the project is in good shape; only 9.25% of the respondents argued that the dam is not in good shape.

Table 9: Whether the Dam's Presence Encourages the Development of Cities and Towns Surrounding It

S/N	Variables	Frequency	Percentage
1.	Yes	391	97.75%
2.	No	09	2.25%
	TOTAL	400	100%

Source: Survey Research, 2024

Table 4.9 revealed the nexus between the dam's presence in the area and development of towns and cities around. 97.75% of the respondents accept the cities and towns around the dam developed because of its presence while 2.25% argued that the presence of the dam does not encourage the development of cities and towns around it.

Table 10: The Performance of TRIMING in Food Production from 2017 – 2021

S/N	Variables	Frequency	Percentage
1.	Good	197	49.25%
2.	Very good	195	48.75%
3.	Poor	08	0.2%
4.	Very poor	NIL	0%
	TOTAL	400	100%

Source: Survey Research, 2024

Table 4.10 which essentially and basically can be said to be the most crucial of this work indicates the remarkable performance of TRIMING in food production from 2017 – 2021. 49.25% noted that the programme

performance in food production under the period mentioned above is good. However, 48.75% corroborates that performance of TRIMING is very good. Only a small percentage of 0.2 rated it as being poor.

Table 11: General Workings of TRIMING Programme around the Bakalori Irrigation Area.

S/N	Variables	Frequency	Percentage
1.	Excellence	73	18.25%
2.	Very Good	210	52.5%
3.	Good	109	27.25%
4.	Poor	08	0.2%
	TOTAL	400	100%

Source: Survey Research, 2024

The general workings of the TRIMING programme around the Bakalori irrigation area are very encouraging. This is contained in table 4.11. The data represented the views of the respondents as follows: 52.5% of the respondents are in support of the programmes working very well. Furthermore 18.25% pointed that the general workings of TRIMING are excellent, moreover, 27.25% described the World Bank's programme as good. But 0.2% lauded the workings of the programme as poor.

Recommendation

- i. Government should redouble its effort to ensure that farmers patronise their farms and engage in productive activities; this is particularly a function that is solely rests with it. The appeal is necessary looking at how insecurity became a Sword of Damocles in the state.
- ii. TRIMING should as a matter of necessity try to implement fishery farming especially in Jankarawa as proposed by the programme. This would boost their livelihood and prevails an opportunity for self-reliance. This is because fishery is not given the expected priority as observed by the researcher; something indicative of the negative effect of the TRIMING as captured by objective ii and iv of the work.
- iii. At this juncture the work recommends the linking of rural areas especially irrigated farms with feeder roads in order to make it accessible to market.
- iv. There should also be presence of agro-allied preservation method to avoid wastage of some farm produce.
- v. There is need to also encourage agronomic irrigation i.e production of

such produce as tomatoes, pepper, cucumbers, lettuce and carbage.

Conclusion

It is unequivocal to note that agriculture and specifically irrigation farming occupies an important place in the issues of International development, thus, the intervention of World Bank to improve the individual entrepreneurial development of farmers for self-reliance as occasioned in the neo-liberal credo is apt. World bank therefore, in collaboration with the Nigeria's Federal Ministry of Water Resources are making effort to improve major irrigation infrastructures and facilities in Northern Nigeria including the Bakalori Irrigation Scheme for robust food production with a view to fighting hunger and provide shield for food security.

Recommendations

The value and importance of agricultural activities to an economy cannot be overemphasised. This is why Arthur Lewis has pointed three simple ingredients that if they are put into considerations any economy can develop: adequate rainfall, a system of secondary education and sensible government. That is true as crops need water

to grow; thus there is need for enough and sustain water channeling throughout the year to avoid desiccation of farms.

This work recommends the construction of new feeder roads and rehabilitation of the existing ones for easy transportation of food from rural areas to markets in the cities.

There is need for more incentives especially fertilizers at affordable price in order to encourage the irrigation farmers.

There should also be provision of silos and other means of preservation of raw foods to avoid loss due to possible decomposition.

Zamfara State government should collaborate with the World Bank to extend the TRIMING programme to other parts of the state which could help in more positive impact of the World Bank presence in the state.

With the current population of 200 million in Nigeria the present land area of 23,000 hectares is not sufficient, the work recommends increase of more hectares so as to have more improved food production

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- ¹ Interview with a community leader, Idris Adamu Zango, in Minna, Niger State, November 10, 2023
- ² Interview with an elderly housewife and firewood vendor in Fuka town, Niger State, October 28, 2023.
- ³ Interview with a social historian and community leader in Minna, Niger State, November 10, 2023
- ⁴ Interview with a community leader in Paiko, Niger State, November 11, 2023
- ⁵ Interview with a housewife and firewood vendor in Gwam, Niger State, April 22, 2023. It is observed that men have recognized women as partners in household maintenance and women have accepted such responsibility across all households visited.
- ⁶ Interview with a social welfare officer and community member of Kuta, Niger State, November 25, 2023
- ^{vii} Interview with a house wife and community elder in Fuka town, Niger State, April 22, 2023
- ^{viii} Interview with a retired civil servant in Kuta, Niger State, April 20, 2023
- ^{ix}
- ^x Interview with a community leader in Gawu, Niger State, October 25, 2023.
- ^{xi} Interview with a community leader in Kuta, Niger State, November 14, 2023.
- ^{xii} Interview with a traditional title holder and community leader in Chanchaga, Minna, Niger State, April 10, 2023.
- ^{xiii} Interview with a housewife and firewood vendor in Ushafa Village, Federal Capital Territory, April 15, 2023.

- ^{xiv} Interview with a youth leader in Gawu, Niger State, November 12, 2023.
- ^{xv} Interview with social historian and community member of Kuta in Minna, October 28, 2023
- ^{xvi} interview with a farmer and community member of Gwam, Niger State, October 20, 2023
- ^{xvii} Interview with a female civil servant and community member of Chanchaga, Minna, Niger State, November 10, 2023.
- ^{xviii} Interview with a social historian in Ibrahim Badamasi Babangida University Lapai, Niger State, November 10, 2023
- ^{xix} Interview with a housewife and firewood vendor in Kafin Koro, Niger State, April 20, 2023.
- ^{xx} Interview with a business woman in Kuta, Niger State, April 25, 2023.
- ^{xxi} Interview with an elderly business woman in Kafin Koro, Niger State, April 20, 2023.
- ^{xxii} Interview with a social historian in Minna, Niger State, October 20, 2023.
- ^{xxiii} Interview with a social psychology expert in Ibrahim Badamasi Babangida University Lapai, Niger State, October 21, 2023.
- ^{xxiv} Interview with a woman activist in Ushafa, FCT, Abuja, April 20, 2023.
- ^{xxv} Interview with a firewood vendor in Lambata, Niger State, October 20, 2023.
- ^{xxvi} An interview with a firewood vendor in Lambata originally in Gbagyi Language but translated into English Language by an expert, November 10, 2023.
- ^{xxvii} Interview with a Gbagyi student in Niger State College of Education Minna, November 19, 2023.