

A SYNERGY APPROACH AS A VIABLE OPTION FOR HARNESSING THE DEVELOPMENT POTENTIALS OF NASARAWA STATE, NIGERIA

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ABSTRACT

Synergy is seen as a mutual arrangement between two or more public, private or non-governmental organizations to achieve a jointly determined goal or objective, or to implement a jointly determined activity, for the benefit of the society. The paper focuses on synergy approach as a viable option for harnessing the development potentials of Nasarawa State in Nigeria as they relate to growth and development. This is due to the inability of the State government to harness these potentials. Data for this paper were generated through field survey, focused group discussion (FGD) and secondary sources. The development potentials of Nasarawa State encompasses solid minerals, agriculture, tropical climate, tourism potentials, livestock, water resources, forest resources and land resource. The study of this approach will no doubt place the State Government in a better position financially to create a vibrant economy that would have a lot to offer in terms of wealth and income generation, employment creation and infrastructural development with poverty alleviation as a consequence. This paper concludes by strongly recommending public private partnership as a viable option for the state government to employ to be able to harness these vast development potentials given their lean resources.

Keywords: *Synergy, Viable, Harnessing, Development, Potentials*

INTRODUCTION

Located in the central part of Nigeria, Nasarawa State was created out of Plateau state on October 1st 1996 with its headquarters in Lafia and it is tagged “The Home of Solid Minerals” due to abundant mineral resources. The State lies between latitude 7 45’ and 9 25’N of the equator and between 7 and 9 37’E of the Greenwich meridian and it covers a land mass of 27,862km² with a population of 1,863,275 people according to 2006 provisional census spread in the thirteen (13) local government areas of the state namely Akwanga, Awe, Doma, Karu, Keffi, Kokona, Lafia, Nassarawa Eggon, Nassarawa, Obi, Toto and Wamba. The state shares boundary with Kaduna state in the North, Plateau state in the East, Taraba and Benue states in the south and Federal Capital Territory and Kogi state in the west. Nasarawa state is located in the middle climatic belt that is generally very warm and humid with dry and rainy seasons. It has a mean temperature range of 25 ° C to 35 ° C, a mean rainfall of 1120mm to 1500mm relative humidity of 60-80% and falls within the guinea savannah kind of vegetation that houses a lot of merchantable tress (Greater Lafia master plan, 1998; Meteorological dept, 2018).

Nearness of the State to Abuja, the Federal Capital Territory of Nigeria, gives it greater prospects for growth and development considering its strategic location, abundant tourism potentials, abundant solid mineral deposits, predominant tropical climate, rich agricultural potentials, great potentials for animal husbandry, vast land resource, and large water bodies.

STATEMENT OF PROBLEM

In spite of these potentials, the State is backward in terms of human capital development, physical transformation and other infrastructural development owing to narrow internal revenue base. This is attributed to lack of a viral political will and a novelty option in harnessing these development potentials.

Agriculture remains the primary and predominant occupation, with over 90% of its working population involved with little or no mechanization to the neglect of other development potentials. This paper therefore aims at focusing on synergy as a viable option in harnessing the development potentials that exist in Nasarawa state.

JUSTIFICATION OF THE STUDY

This study will be of interest to both the State government and the private sector as we are witnessing a global economic down-turn that requires the need to chart a new course for our survival. Thus, inventory of the State development potentials and the dissemination of these information become necessary in order to attract public private partnership to different sectors of the economy in the State. It will help the state government to diversify in this area of lean resources and global crashed of crude oil prices and to make more viable investment decisions that will lead to proper harnessing of the State host of natural resources that will

ultimately lead to improvement in the living standard of many families at the grass root, create employment and reduce youth restiveness.

OBJECTIVES OF THE STUDY

1. To take inventory of the State's development potentials and where they could be found.
2. To state the industrial uses of these development potentials.
3. To create a framework of synergy for the harnessing of development potentials
4. To state the likely benefits that would achieve to the participating stakeholders.

MAJOR RESEARCH QUESTIONS

1. What are the development potentials of Nasarawa State and where could these be found?
2. What are their industrial uses?
3. In what possible ways could the government synergize with the private sector in harnessing development potentials of Nasarawa State?
4. What are the likely benefits of this framework of synergy to the stakeholders?

METHODOLOGY OF THE STUDY

The data used in this study were variously generated through field survey of where these development potentials are located; Focused Group Discussion (FGD) with experts of these development potentials, some of whom are not necessarily members of the local communities where these development potentials are identified. A total number of 10 experts were drawn from the following fields of study; Geography, Geology and mining, Crop production, Fishery, Animal husbandry, Forestry, Business Administration, Economics, Hotel and Tourism management most of whom were drawn from the State ministry of trade, commerce and industry and the State tertiary institutions of higher learning and whose opinion forms the basis for a framework of synergy on how these potentials can be properly harnessed. Data were also obtained from secondary sources; websites, journals, magazines, Government gazettes, textbooks and unpublished materials. Meanwhile data organisation and analysis were made possible with the aid of descriptive statistics where tables were used.

CONCEPTUAL FRAMEWORK

At the dawn of the twenty-first century, the concept of synergy has emerged in the development discourse: synergy and participatory development. Synergy approach has been gaining popularity both in the developed and developing countries as a viable option for harnessing natural resources.

Mitchell (1997) defined synergy as: ...a mutually agreed arrangement between two or more public, private or non-governmental organizations to achieve a jointly determined goal or objective, or to implement a jointly determined activity, for the benefit of the environment and society. The concept of synergy represents a new type of challenge for government. Addressing them is not just about adopting new policy and institutional arrangements, but is rather a matter of changing values in the State apparatus and society as a whole, and to recognize new stakeholders as partners in the development process. The core of this concept is therefore a shift in balance away from the public sector towards the private sector and a shift towards sharing tasks and responsibilities (Kooiman, 1993).

According to Nelson and Zadek (2000), the idea of synergy implies people and organizations from some combination of public, business and civil constituencies who engage in voluntary, mutually beneficial innovative relationships to address common social aims through combining their resources and competencies. As such, synergy could mean government working together with a wide range of social partners at the national and local level to plan, implement and evaluate policy and actions for socio-economic development.

Dwivedi (2002) as captured in Yaro and Ebuga (2013) asserts that the natural resources of a country which include rivers and lakes, forest, landscape, oil and gas, and solid minerals are the major determinants of its growth and development. He argues that countries that are rich in natural resources have much longer growth potential than those lacking natural resources. He however asserts that it is the harnessing of environmental resources with the aid of manpower, capital and technology that brings about growth and development. According to him, these are the factors that had contributed to the rapid growth and development of USA, UK, France, Canada, Australia and other developed economies.

Alluding to the above, Barau (2004) said that physical environment of any country provides both problems and opportunities for the inhabitants. The available opportunities include soil type, forest, climates, water bodies amongst others, which if harnessed will help in improving quality of life of the citizenry.

PRESENTATION OF DATA WITH POSSIBLE AREA OF SYNERGY

AGRICULTURE

Nasarawa State lies in a lowland region, which is very fertile for agricultural practice; hence the primary occupation of the inhabitants is farming. Despite inherent problems in the sector with respect to storage and mechanization owing to difficult terrain and high cost of procurement and maintenance, the state produces a wide range of crops with lots of opportunities in the areas other than construction of modern silos as presented below.

Table 1: Major agricultural crops with synergy and industrial potentials

S/N	Crop	Production Capacity (000mt)	Production Area (000HA)	Synergy Potentials
1.	Maize	108.69	58.83	Maize flour, custard powder, baby food, livestock feeds.
2.	Rice	105.63	31.24	Rice milling plants
3.	Sorghum	1117.72	86.92	Flour, malt confectionaries
4.	Millet	14.21	13.53	Grain processing
5.	Cowpea	5.20	12.19	Processing plant
6.	Soya beans	1.97	2.09	Soya milk, Vegetable oil, soya flour.
7.	Yam	1198.20	67.34	Yam flour, chips pellets, pounded yam.
8.	Cassava	164.32	17.49	Flour chips, pellets starch, glucose/dextrose
9.	Sweet potato	3.43	0.32	Dextrose, glucose, chips
10.	Irish potato	1.43	0.22	Chips.
11.	Orange	750,000	25,000	Fruit juice
12.	Mango	180,000	10,000	Juice production
13.	Cashew	300,000	2000	Oil solvent, edible nuts
14.	Oil palm	75,000	500	Palm oil, palm wine, cosmetics
15.	Coconut	65,000	400	Coconut oil
16.	Ground nut	123.80	104.10	Oil processing plant
17.	Beniseed	6.24	13.13	Confectionary, edible oil
18.	Melon	NA	NA	Mellon milling

Source: www.nasarawastate.org

SOLID MINERALS

Exploration and mining activities in Nigeria as extensively studied by Akwa, et,al (2007) show that Nasarawa state is one of the leading mineral deposits states in the country. Solid minerals are found virtually in all the local government areas of the state. Except for barite, clay, glass sand and marbles with inferred reserves of 730,000 tones, 9.1 million tonnes, 2.54million tones and 4million tones respectively. Other minerals are yet to be quantified (www.nasarawastate.org).

Although mining is a major area of synergy in the state, these, will therefore provide good facilities for the processing of these minerals. Synergy opportunities therefore exist in the solid mineral sector of the state as detailed below.

Table 2: Distribution of Solid Minerals in Nasarawa State

S/N	LGA/locality	Minerals
1.	Akwanga	Cassiterite, Clay, Columbite, Mica, Grannite, Limenite
2.	Awe (Azara, Wuse, Alosi)	Baryte, Clay, Galena, Salt, Limestone
3.	Doma	Clay, Silica sand
4.	Keana	Baryte, Galena, Salt, Zinc, Lead, Limestone.
5.	Karu(Panda)	Clay, Glass sand, Granite, Tantalite, Mica
6.	Keffi(Ungwar Doka, Tudun Jenjela)	Clay, Tale, Gemstone(Tourmaline, Aquamarine, Sapphire)
7.	Kokona(Bakin-Aini, Rafin Gabas)	Mica, Chalcopryrite, Gemstone (Tourmaline and Aquamarine)
8.	Lafia (Shabu)	Clay, Silica sand, Gemstone (Topaz)
9.	Nassarwa Eggon (Wana, Alogani, Mada station, Ungwar Gyawa)	Quartz, Mica, Granite, Gemstone (Emerald, Aquamarine, Heliodor, Topaz, Amethyst)
10.	Obi	Baryte, Clay, Coal
11.	Nassarawa(Udege-mbeki)	Cassiterite, Clay, Columbite, Tantalite
12.	Toto (Ugya)	Marble, Iron ore, Mica
13.	Wamba(Randa, Gongon)	Cassiterite, Tantalite, Granite, Columbite, limonite, Aquamarine

Source: Nasarawa State Ministry of Commerce, Industries and Cooperatives Lafia.

Table 3: Synergy Opportunities in the Solid Mineral Sector

S/N	Synergy Opportunities	Viable Locations
1.	Baryte Processing	Azara
2.	Solid Minerals buying centres	Lafia, Akwanga and keffi
3.	Lapidary Plants for Gemstone	N/Eggon, Garaku
4.	Glass making	Shabu
5.	Marble processing	Toto
6.	Salt Factories	Keana, Ribi
7.	Burnt Bricks Factories	Keffi, kadarko, Akwanga, Karu
8.	Cement Plants	Kadarko, Keana
9.	Coal briquetting enterprise	Obi
10.	Battery manufacturing	Keana
11.	Electric/Energy generating plants	Obi, Keffi, Wamba, Nass/Eggon
12.	Ceramics and Bricks works	Akwanga
13.	Terrazo/Tiles making and marketing company	Gadabuke, Toto

Source: Adopted from Yaro, O.O (2005): Developing Solid Minerals Deposits for Rural Development in Nigeria

TOURISM POTENTIALS AND POSSIBLE AREAS OF SYNERGY

Nasarawa State has abundant tourism landmarks and sites cutting across the thirteen local government areas which are in need of development as distributed in the table 4 below:

Table 4: Distribution of Tourism Resources with synergy Investible Potentials in Nasarawa State.

S/N	Tourist Sites	Location	Size	Possible Areas of synergy
1.	Peperuwa Lake	Peperuwa East of Lafia	7 x 3.8km	Picnicking, Camping, Viewing, Hotel Business.
2.	Malloney Hills	Keffi	Long	Picnicking, Camping.
3.	Oku-Akpa	Nasarawa	Long	Picnicking, Mountaineering, Hunting.
4.	Umaisha River	Umaisha (Toto)	Large	Fishing, Swimming, Boating, Regatta
5.	Akiri Warm Spring	Akiri (Awe)	Large	Curative Powers, Water Spring Plant.
6.	Doma Dam	Doma	2km x 300m	Irrigation, Fish Farming.
7.	Lafia Dyeing Pits and Calabash Carving	Kofar Pada (Lafia)	-	Traditional Cloth Weaving, Calabash Weaving.
8.	Akiri Salt Lake	Akiri (Awe)	Large	Salt Deposits
9.	Hunki Ox-bow Lake	Tunga (Awe)	7km x 70m	Picnicking, Boating, Fishing, Game viewing.
10.	Farin Ruwa Falls	Farin Ruwa (Wamba)	150 x50m	Hydroelectricity, Water spring, Wildlife.
11.	Eggon Hills and Caves	Nassarawa Eggon	300m high	Quarrying, Hotel Business
12.	Ara Rocks	Ara (Nassarawa)	150m high	Leadership Training, Camping, Mountaineering
13.	Keana Salt Village	Keana	Large	Salt Deposits
14.	Numan Rocks	Andaha (Akwanga)	Long	Camping, Leadership Training, Mountaineering

Source: www. Nasarawastate.org and Field survey, 2018.

WATER RESOURCES AND POSSIBLE AREAS OF SYNERGY

The State is richly endowed with abundant water resources estimated at 36 billion cubic metres. Table 5 below captures the major water resources of Nasarawa state with their locations besides several ponds that exist along the major river valleys.

Table 5: Major water resources and locations

S/N	Water Resources	Location
1.	Mada River	Nass/Eggon Mada Station
2.	Gudi River	Akwanga (Gudi Station)
3.	Arikya River	Lafia (Arikya)
4.	Maisauri River	Keffi (Maisauri)
5.	Amba River	Kokona (Amba)
6.	Umaisha River	Toto (Umaisha)
7.	Uke River	Karu (Uke)
8.	Antau River	Keffi (Antau)
9.	Awonge River	Doma (Awonge)
10.	Mararaban Kogi	Lafia (Mararaban Kogi)
11.	Akiri Lake	Lafia (Akiri)
12.	Hunki Lake	Lafia (Hunki)
13.	Doma Dam	Doma
14.	Akwanga Dam	Akwanga
15.	Nassarawa Dam	Nassarawa
16.	Farin Ruwa Falls	Wamba (Farin Ruwa)
17.	Akiri Spring	Lafia (Akiri)

Source(s): www.Nasarawastate.org, Ayih, 2003, Abimiku, 2009.

Note: Despite these rich water bodies, portable drinking water and edible fish are not within the reach of rural dwellers while agriculture is dominantly rain-fed. Thus, possible investments and synergy in this sector include private water supply companies, water treatment plants, bottled water factories, irrigation farming systems, hydroelectricity plants, fish farming, spring water processing plants, fish processing equipment like cold room and boating facilities.

FOREST RESOURCES AND POSSIBLE AREAS OF SYNERGY

Forests resource exist in Nasarawa state particularly in karu, Toto, Wamba, Nassarawa Eggon, Doma and Awe local government areas with merchantable species. Few of such trees include mahogany, iroko and obeche in large quantities. In this area, synergy and investment is possible in saw milling, furniture making, paper making, and agriculture and game reserve.

CLIMATOLOGICAL RESOURCES AND POSSIBLE AREAS OF SYNERGY

The climate of Nasarawa is predominantly tropical with an average temperature of 25° C – 36° C and an average rainfall of 1300mm. There are two major seasons, wet and dry season. The former begins from April and terminates in October with August and September as the wettest months. The latter starts from November and ends in March, with February and March as the hottest months (www.nasarawastate.org). The synergy and investible potentials

arising from these forms of resources include development of wind turbines for electricity generation through wind energy, solar panels for energy generation among others.

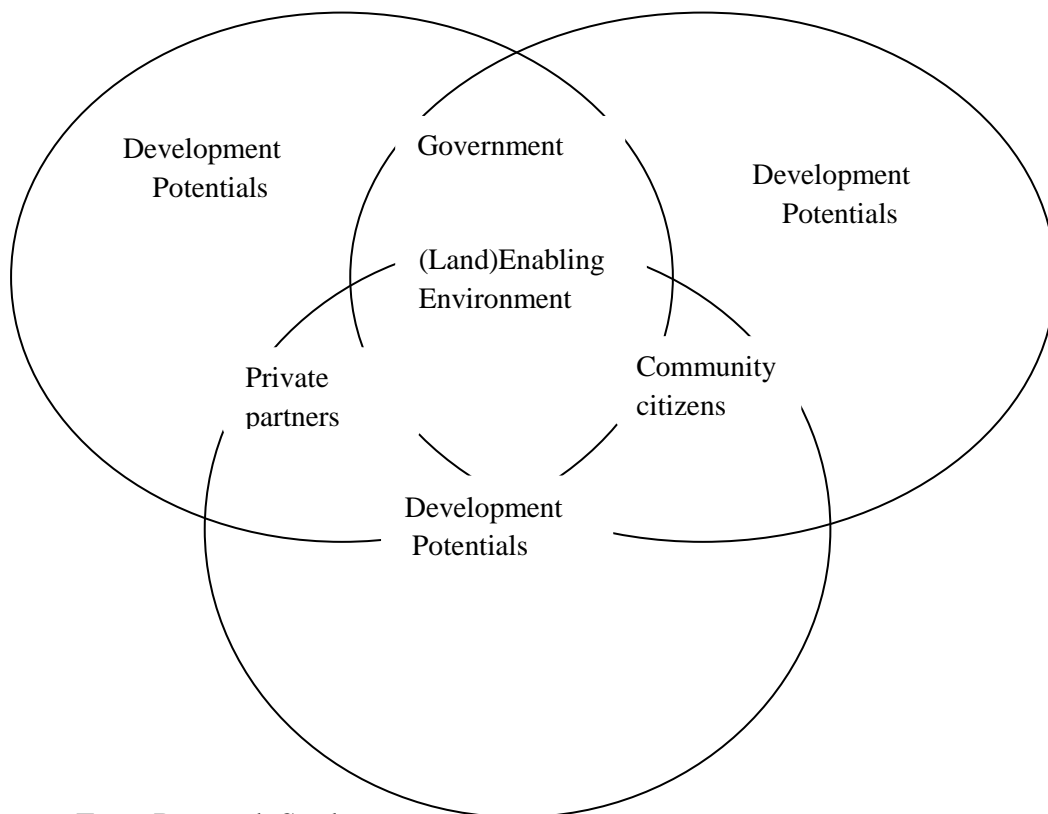
PROXIMITY OF THE STATE TO FCT AND POSSIBLE AREAS OF SYNERGY

With the vast land resource, strategic location and nearness to Abuja, Nigeria's Federal Capital City, International market structure and hotel business would be a viable venture (Abimiku, 2009). Already, hotel business is springing up rapidly for the comfort and convenience of visitors especially in Lafia, Keffi, Akwanga, Nassarawa and Karu. With synergy more resources would be invested and this will boast tourism, small and medium scale enterprises and property development in the state.

DISCUSSION OF FINDINGS

A synergy model in harnessing the development potentials of Nasarawa State.

Figure 1: Framework of the model



Source: From Research Study.

A strategic proposal is conceptualized for proper and a sustainable synergy in areas of these potentials. Here, the government forms the focal point of discussion since government has control over land and land resources based on the Land Use Act of 1978. These potentials can be harness when government create an enabling environment for private sector participation.

This paper envisages a whole study package of the following actors:

1. Government
2. Private sector
3. Stakeholders (Community participants or citizens).

Based on the framework above, First, government as the focal point will ensure minimizing financial cost, efficiency in management and protection against technology obsolescence. Secondly, Private partners will ensure reliable stream of revenue, provision of skilled labourers and access to technology and innovation in the development of these potentials and also creation of employment.

Thirdly, Citizen of the community will be employed and the operations will boast economic activities where these potentials are situated.

The table below specifies how government and the private sector could synergise on the basis of their competencies and comparative cost advantage.

Potentials	Government responsibility	Private Sector responsibility	Community (citizens/participants) responsibility
Solid minerals	Provisions of access roads Issuing of licence Provision of water e.g dams, rivers and ponds	Provision of modern tools and machines e.g lapidary Exploitation of solid minerals and the marketing	Provision of labourers to perform the tasks and boosting the economic well being of the community.
Water resources	Creating an enabling environment in the provision of water resources for electricity generation	Provision of technology for power distribution, rearing animals, processing of fish, technology for irrigation system of farming, conveyance of people and goods across water bodies	Provision of labourers to perform the tasks through employment

Tourism resources	Electrification of tourist sites, provision of security and construction of roads network and provision of wildlife parks	Construction and management of hotels and other catering facilities	Provision of labourers by the community
Agriculture	Provision of land, equipment and processing plants. Provision of storage facilities, warehouses and marketing board for the standardisation of prices of farm produce.	Provision of technology for the processing of these agriculture produce. Provision of modern farming tools.	Provision of labourers by the community.
Forest resources	Provision of game reserve and forest reserve.	Provision of recreational facilities, Investment in saw milling, furniture making and paper making.	Provision of labourers by the community for employment
Climatological resources	Creating an enabling environment for electricity generation	Development of technology for wind turbine and solar panels for power generation	Provision of labourers by the community

CONCLUSION

This paper has highlighted and exposed the development potentials that exist in Nasarawa State of Nigeria for both the government and the private sector/entrepreneurs. However, for maximum exploration and utilisation of these potentials, the paper recommends a synergy of efforts between government and private sector or between private individuals in such areas that require huge capital outlay. Again, cooperative approach is reputable for comprehensive and realistic feasibility reports that would win the confidence of funds donors.

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