

ATTAINMENT OF THE 7-POINT AGENDA IN NIGERIA THROUGH SCIENCE AND TECHNOLOGY

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Abstract

The 7-point agenda of the Nigerian President, Musa Umaru Yar'adua is a suitable road map to the quick modernization and industrialization of Nigeria. The agenda touches on the most important aspects of the needs of the people of this country. For instance, adequate supply of power and energy, the effective modernization of education at all levels from primary to tertiary, the beefing up of the system of transportation throughout the country, the departure from the dependence on crude oil to new areas of employment and wealth creation such as in agriculture and solid minerals and the assurance of security especially in Niger Delta zone of the country – all these will give this country a new lease of life never experienced before.

This paper, therefore, contains analysis of the bone of contention of the 7-point agenda as enumerated by the president himself. Namely, power and energy, food security, wealth creation, transportation, land reform, education and security as epitomized in the Niger Delta situation. The purpose of this paper is to critically examine the issues involved in achieving the agenda, or otherwise, show the strengths and weaknesses of the various proposals, in relationship with the existing science and technology in this country at the moment, and finally draw conclusion and make recommendations.

The science and technology available in this country has already produced very formidable manpower that can handle Nigeria's current state of development. If, however, there are certain rare areas where suitable technology is not available, the country is rich enough to pay for technology transfer from outside. The re-branding of Nigeria now in progress, though not part of the 7-point agenda, has created excellent opportunities for smoothening the rough edges of the agenda and, hopefully, will act as icing sugar and finishing touches to it.

Keywords: Science and technology, the 7-point agenda, development, Nigerian government and the masses.

Introduction

Science is knowledge acquired by careful observation, deduction of the laws which govern changes and conditions and by testing these deductions by experiment. It is empirical. It sets facts that can be observed and tested. The laws of science stand out clearly and are true at all times and in all nations, at least until some other facts and truth emerge that can fault the last theories. Thus at all material times the laws of science stand firm until new and more factual ones are proposed, tested and proved. Great scientists and innovators existed from very ancient times. Some are: Greek Pythagoras who lived from 580 to 500 years B.C

and discovered a mathematical theorem among other things. An Italian scientist, Galileo Galilei, 1564-1642 AD who made many scientific inventions especially the discovery of the pendulum and the telescope, etc.

With regard to technology, it is the science of technical processes in a wide, though related field of knowledge. Thus, industrial technology enhances the mechanical and physical sciences as these are applied in industrial processes. In other words, technology makes use of scientific theories to develop mechanical and industrial processes and applies such discoveries to use. It means adopting in practical terms the fruits of scientific discoveries.

The benefits of scientific discovery are reaped through the development of technological innovations. For instance, with the discovery of the wheel, rapid development in technology took place in England during the Industrial Revolution of the 1700s. The mechanization of industry followed generally in Europe especially in England, France, Belgium, Germany and later in the United States of America. Locomotive engines, steam ships (instead of sailing ships) emerged in the world scene. Other magnificent technological inventions followed including the aeroplane built by the two brothers, Wilbur and Orville Wright of the United States of America in 1903. Today great technological developments are taking place in the Eastern parts of the world- in China, India, and Japan etc. and in South America especially in Brazil. There are also relatively technological developments in some parts of Africa like South Africa. Nigeria is still in its embryo, that is, in trying to find its feet, technologically.

Agenda can be described as: “things to be done, a list of things to be discussed in a business meeting, a memorandum book” apt for discussion. The 7-point agenda is the list of things to be done by the government. At this point we will turn and examine the Nigerian Federal Government’s 7-point agenda. The incumbent president and Commander-in-Chief of Nigeria, Musa Umaru Yar’dua immediately he was sworn-in as Nigeria’s Head of State on 29th May 2007 declared that he had a 7-point agenda to tackle for his country-men and women including himself. There was no equivocation in his speech. There were no ifs and buts, he knew the direction he was going in the task he set up for implementation by his government, the points are taken one by one, examined and evaluated in this paper.

Power and Energy

The action needed in this critical sector, through the development of sufficient and adequate power supply, will be to ensure Nigeria’s ability to develop as a modern economy and an industrial nation by the year 2020. The above is the government’s policy target on energy and power supply. But the government seems to forget that the year 2020 is only eleven (11) years away from now. The question therefore is: what is the amount of power supply that will make Nigeria self-sufficient and able to sustain a modern economy with a projected population of about 200,000,00 people by 220 and very large land

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mass. Nigeria needs at least 30,000 mega watts of electricity by the year 2020. With a population of about 50,000,000 and less land mass, South Africa now generates about 50,000 mega watts of electricity and Ghana with less than 20,000,000 people enjoys about 10,000 mega watts of electricity. She recently celebrated ten (10) years of no power outage.

Nigeria currently has less than 4,000 mega watts of electric power supply which it hopes to raise to 6,000 mega watts by the end of December 2009 and to 10,000 mega watts on 1st January 2011. At the rate Nigeria is technologically growing, how can it generate 30,000 mega watts of energy by the year 2020? By the end of the last civilian administration in 2007, the federal government was parading, on television screen, a network of about 15 min power stations which would take Nigeria far in power supply when totally connected. This was a sham. Nothing actually was practical on the ground. The military government had earlier promised Nigerian that by the year 2000 Nigeria would be self sufficient with power supply. That was in vain. Even the power stations that were available were operating below full capacity. Such stations are at Egbin in Lagos State and Shiroro in Niger State. The 30,000 mega watts station at Oji River in Enugu State has not been reactivated since the end of the Nigerian civil war, 39 years ago, due to lack of political will.

Finally, the question arises “what technology is the government to employ to meet its promise to Nigerian in 2020. The answer appears simple. Even though the provision of power and energy is one of the commanding heights of the economy, the federal hold on power and energy supply should be decentralized. Each State government that can invest in and produce power should be encouraged to do so, but its use must not be shackled. Electric power from buoyant States like Lagos, rivers, Akwa Ibom, Enugu, Kaduna, Kano, Delta, Plateau, Niger etc. should be allowed, by deliberate policy, to flow into the national grid. Alternatively, the federal government should provide large power stations in each of the six (6) geo political zones of the country and share the output equitably between all the States. The Rivers State stations at Omoku and other centres of the state. The federal government should also explore other sources of power supply such as wind power, solar energy, power from saw dust, apart from the traditional hydro-electric and thermal power generation. By applying these new sources of power generation, modern science and technology come into play and make the government to achieve its industrial and social targets. Nigeria is capable of doing this even with its current level of technological development.

Food Security

This reform is primarily agrarian-based. The emphasis on the development of modern technology, research, and financial injection into the production and development of agricultural inputs, will revolutionize the agricultural sector leading to about fifty percent increase in yield. This will result

in massive domestic and commercial output and to technological transfer to farmers.

The above is the government view about food security. It sounds quite alright on paper. But implementation is the crux of the matter. Nigeria has a vast area of arable land between the mangrove forests of the South-South zone and the desert belt of the far North. Virtually every kind of crop can grow in the variegated zones of the country, but our farming system is very poor. Most areas of the country practice very ancient types of land tenure, resulting in insufficient land for cultivation by a farmer in the midst of large expanse of land. Land holdings are too meager for mechanized agriculture. Farming with hoes and knives is primitive and cannot give rise to abundant harvest for the teeming population of this country. The country needs better land tenure system. The Land Use Act promulgated at the end of the Nigerian civil war can no longer serve the interests of farming in this country. That Act therefore needs urgent review, if the country will achieve food security for its citizens. In a country like Nigeria, about seventy percent of the population is rural and based on agriculture as occupation. The introduction of mechanization would have filled the entire nation with food stuff for domestic consumption and for export, but we are yet to reach that level. With the level of science and technology available to research institutes like Cocoa Research Institute at Ibadan, the NAIFOR at Benin and the Veterinary Research Institute at Vom near Jos, agricultural out-put would have been abundant were farmers able to benefit from the research results by way of improved seedlings and species. Fertilizer needs to be supplied to farmers at the appropriate time and at affordable prices. The technology of irrigation if properly applied should have made Nigeria produce food stuffs at all seasons, not seasonally as at present. The technology of preservation is yet to be widespread as this would have made seasonal crops, mangoes, available at all seasons.

With the abundant arable land available everywhere, if Nigeria takes time to apply the technology of merchanzization, it is capable of producing not only for domestic consumption but also for export of such consumable stuffs as rice, fish, potatoes, maize, as well as our traditional agricultural exports like cocoa, palm oil and kennel, groundnut, cotton, sugar, timber etc. Revisiting the Farm settlement system as organized by Dr. Michael Okpara' Eastern Regional government and other regional governments in the first Republic, is recommended. These measures are possible with our level of technology. It is however consoling that Nigeria is at present the highest producer of cassava tubers in the world and exports the produce. Care must however be taken in the case of cassava production, that Nigeria does not repeat its pitiable experience with regard to palm produce, to wit: Malaysia, an Asian country bought palm nuts from Benin City in Nigeria about 1956 and went back and developed the nuts to industrial and commercial proportions and for export. Today Nigeria is

going back to Malaysia to pay and learn the technology of palm produce. It is even importing palm oil! From the same Malaysia.

Wealth Creation

By virtue of its reliance on revenue from a mono-economy (crude oil) Nigeria is yet to develop industrially. The policy here is focused on wealth creation through diversification of production especially in the agricultural and solid minerals sectors.

The dependence of Nigeria on crude oil has made the nation lose sight of other lucrative sources of wealth. We have already dealt with agriculture which would have given us abundant wealth where we applying adequate technology in that sector. The solid minerals sector represents another untapped sector/area of abundant wealth. Nigeria is very rich in minerals like coal, tin, cobalt, columbite, table salt and even rare ones like uranium for nuclear power. Due to dependence on crude oil, the government did not attach any importance to these. They would have created plenty of employment and produced consequent wealth.

Has Nigeria not been flaring its gas for many years? It is only now that the policy makers have seen it right by building the gas producing factory, the liquefied natural gas at Finimah in Bayelsa state. We know that gas is not in the group of solid minerals but it represents an area of abundant wealth creation which was neglected at first even though our level of technology could have carried it adequately.

On the recent gas flare-out deadline, which has been shifted several times, the petroleum minister, Dr. Rilwanu Lukeman said the government had come up with a gas master plan, which would systematically and profitably flare-out gas. He said, “if you want to stop oil production too. But we cannot do so because oil production is our lifeline. So we must have a programme that would flare-out gases in reasonable time and also enable us to continue to produce oil”. Nigeria needs to make other sectors her lifeline, not only crude oil.

What the government has said is that it is going to give some prominence to local use of gas. Essentially, certain percentage of the gas produced now will be devoted to domestic use, particularly for power generation. Let us hope this will work. Right now Nigeria uses only about 25 percent of its domestic gas for cooking purposes. This should increase to at least 75% by the year 2020 in order to preserve our ecosystem being destroyed for firewood.

A recent audit was made of crude oil lifting with concession and leases by ministries, departments and agencies at the nation’s airports, seaports and railways to ascertain how revenues derived were utilized. The aim is to be block leakages in the overall revenue generation process on sustainable basis. One million barrels per day (1ml bpd) of production has been shut in as a result of recent escalation of the Niger Delta crisis cutting current output to 1.6m bpd compared with total capacity of three m.bpd. The above president’s directive followed a proposal by the Minister of Finance Dr. Mansur Muktar, in which he

sought approval to plug leaks and rectify “certain institutional shortcoming” in the oil sector and enable revenue generating agencies, such as The Nigerian Customs Services, meet ambitious targets for taxes, duties and other allied revenue sources. The oil sector audit is to confirm the accuracy, integrity and validity of costs, volumes and mass balance, hydrocarbon flows and other indicators to review, vet and reconcile export lifting of petroleum products. It will also involve a process audit of past remittances of operating surpluses and other internally generated revenue to ensure full compliance and timely remittance by relevant agencies. President Yar’adua has also ordered a closer look at the areas where the federal government is making huge payments including destination inspection arraignments at the nation’s ports to block leakages and see how considerable savings might be made. The basis for the confiscation of oil acreages (eg oil prospecting lease 289 formerly Oil Mining License 64 which was sold to a Chinese firm in the 2006 bid round. Though it was owned by the National Petroleum Development Company, the oil prospecting arm of the NNPC) from the Nigeria National Petroleum Corporation with a view of possible recovery and also to “prevent the imminent collapse of the NNPC on account of its rising debt stock” is worth reviewing.

However, there is the claim by the oil companies that they are not being carried along in the process of the reforms.

Transport Sector

The transport sector is another area that was allowed to decay. The railway was one of the business that gave this country its initial wealth in cash and in employment, but was abandoned when it was needed most for lifting goods like crude oil to the refineries, and finished products (petrol etc) to depots through-out the country. At independence in 1960, Nigeria inherited a few good roads from the colonial master which he used to transport export products from the hinterland to the coasts. The country did not follow-up with more roads and did not even maintain the ones she inherited.

When the Queen of England, Queen Elizabeth II, visited Nigeria in 1956, there were only two ship berths for her to commission in the Lagos harbor. At the same time nobody paid enough attention to Port Harcourt, Calabar, Warri where thee were other sea ports. There was practically no civil aviation at independence in 1960. The Nigerian government started the Nigeria Airways as a civil and commercial airline and could boast of twenty commercial aircrafts by 1980. However, the effort just crashed. By the year 2000, the country had no commercial airline of its own. What a tragedy! The Airways depended on hiring aircrafts in what is technically called “wet lease.” Today efforts are being made to resuscitate the industry through “Virgin Nigeria.”

In the past we made efforts to rescue the railways through the hiring of Indian railway engineers and technologists but the effort was stultified. The present government has invited Chinese experts to handle the railways by laying

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standard-gauge tracks instead of our former narrow gauge tracks. One hopes that the proposal will materialize.

There is also serious effort of dredging the major rivers (Nigeria and Benue) for internal transportation and the establishment of River ports at Warri, Brutu, Onitsha, Lokoja, Makurdi, etc. It should be recalled that when the United African Company (UAC) set up business in this country in the 19th and early 20th centuries, its main means of transportation was through the big rivers. But Nigeria neglected this system after independence.

The country decided to maximally use the roads after it abandoned the railway and the river transportation. But the tragedy was that we also failed to maintain the roads talk less of building new ones. Our road networks were always North-to-South except the one the transversed from the east through the west from Onitsha to Lagos. Railways and roads should have been built vertically and horizontally but that was not to be. The direction, in each case, has been north to south.

The pity of the sorry transport situation is that Nigeria has enough engineers and technologists to take care of its needs but for the Nigerian factor-corruption. Otherwise, why did the earlier flourishing railways, airlines, river ports and even the major ports collapse in the presence of our relative high level engineering manpower.

Land Reforms

While hundreds of billions of naira have been lost through unused government-owned landed assets, changes in the land laws and the emergence of land reforms will optimize Nigeria's growth through the release of lands for commercial farming and other large scale business enterprises by the private sector. The Land Use of Act mentioned above appropriated all lands into the hands of the federal government of Nigeria but the same government would appear not to know what to do with its wide powers. It allowed the primitive land tenure in vogue before the law to continue to operate. The government would have used the opportunity to set up large scale agricultural settlements in various sections of Nigeria. It would have created conditions to enable private businessmen and women, including multinationals, to go into manufacturing by making land available free of charge, or at very minimal price. Government or private businessmen and women could have taken land to build housing estates to accommodate Nigerians unable to build their own houses. There was enough technologists to establish agricultural settlements, industries and housing estates. Government may now remedy the situation by reviewing the Land Use Act so as to appropriate large tracks for development purposes under the 7-point agenda.

Security: The Niger Delta Situation

The crux of the 7-point agenda is security. Without internal security there will be an unhealthy climate for development. Insecurity hinders progress not

only in Nigeria but internationally. Foreign investors will not step into the country because every investors wants to reap where he/she has shown his/her capital. Insecurity has the effect of reducing the people's standard of living and the national income. We should take example with what is happening in the Niger Delta area of the South-South geopolitical zone of Nigeria. Nigeria should have been producing about 3 million barrels of crude oils per day but at present it is producing less than 2 million because of the dastardly activities of youths blowing oil pipelines, oil installations, kidnapping, arson etc.

The establishment of the Federal Ministry for Niger Delta matters and the retention of the Niger Delta Development Commission are salutary steps in right direction. Government should also use dialogue instead of the force of arms of douse the insecurity in the Niger Delta area, for after every warfare there follows discussion. Why not discussion first? Government cannot attain peace by the military option in the Niger Delta area.

Until October 2009, Nigeria was virtually fighting another civil war, though undeclared. Aggrieved youths of the Niger Delta who felt that their areas were grossly neglected even though their land produced the proverbial golden egg for Nigeria – crude oil which gives the country about 90% of its Gross National Product. The “war” was raging in the area as active pipeline were blown up, flow stations disrupted, staff of kidnapped, and some killed; huge ransoms were demanded by the “boys” and paid. The destruction affected a very important oil installation in Lagos by the middle of 2009 and threats to attack the major cities in the South and North were made. Crude oil production fell drastically and Nigeria was no longer able to maintain its budget forecasts.

Problems of lack of development and deliberate government neglect affected the whole or parts of the oil producing States of Abia, Akwa Ibom, Bayelsa, Cross River, Delta, Edo, Imo, Ondo and Rivers. The oil fields so degraded life in the affected areas that there was no land for agriculture any more; the aqua culture (fishing) faded because of oil pollution of the water ways, no drinking water, and dependable hospitals, the ecosystem was simply destroyed. The federal government and oil companies were only interested in evacuating crude oil to other parts of the country especially the big cities. For instance, it is no secret that the massive and huge overlapping concrete flyovers built in Lagos in the 1970s were the result of income from crude oil. Compare the scenario with the fact that the town of Oloibiri, from where the first shipment of crude oil was made in 1957, had no tarred road and no electricity, etc. till about two years ago.

Previous governments tied in vain to quell the activities of Niger Delta youths by the military option, only to provoke the youths and spur them into greater action. However, President Yar'adua included this national score as one of his seven point agenda. In August 2009, the President came out with a package which he called “Amnesty for warring youths of the Niger Delta” if they drop and surrender their arms by 4th October 2009. With good promises in the package

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including rehabilitation of the youths, provision of jobs, rapid development of the Niger Delta area, etc. and good press publicity, the amnesty programme is working. Arms have been surrendered and the war has been halted. Rehabilitation has started and very large sums of money running into hundred of billions of naira has been released for civil works including roads, bridges, schools, hospitals, universities, electricity in the areas. Reconstruction of blown oil pipelines has started. The kidnapping and demand of ransom has stopped in the Niger Delta areas. Crude oil has once more started to flow and it is expected that soon Nigeria can meet its OPEC quota which it had not done for many years in the recent past. If the Amnesty package is properly implemented, Nigeria's development will assume a new lease of life and the general objectives of the 20-20-20 (i.e. Nigeria being one of the twenty leading developed economies in the world by the year 2020) can be achieved. Thus, Yar'adua has achieved with the biro pen what machine guns and bombs could not do. It is however necessary to warn against a shoddy implementation of the Amnesty policy as Nigeria often does with very nice policies articulated on paper, but with zero implementation activity. Nigeria's current level of technology can see to the effective implementation of the programme which will restore peace to this nation in a major way.

Other security problems of the country such as armed robbery, kidnapping, motor accident, examination malpractice, bribery and corruption, cultism etc. are also serious issues, but the police and other security agencies can easily handle them.

Education

The interplay of science and technology is better achieved through educational development. In the past, that is before the Nigerian civil war, education was in the concurrent list. Consequently both the Federal Government and the Regional Government created enabling conditions for educational development and allowed Voluntary Agencies and few individuals to own and manage schools. There were however, very few government school. After the civil war, the situation changed and State Government seized Voluntary Agency and private schools and managed them. Even the Federal Government-built and managed the so-called 'unity schools' –two in each state. The decay in education set in after a few year's of "excellent" performance by the appearance of examination malpractice epitomized in live examination paper leakage, year in year out, with the monster eating deeper and deeper each year. At the beginning, it mainly involved students, but now many invigilators, headmasters, headmistresses, principals, parents and even the examinations' central organ or agency are all involved. The malady is no longer confined to secondary schools but has touched elementary schools and tertiary institutions.

Despite the high level attained in science and technology in Nigeria, another monster plaguing education is the neglect meted to educational

development. School structures often built local communities and handed over to the government to manage especially in southern Nigeria were left to deteriorate by the governments after the state takeover of the 1970s. No maintenance culture was applied to the structures. Equipment, especially science laboratory and intro-tech equipment in these schools were either stolen by “unknown” persons or were allowed to deteriorate. Where the laboratories existed there were no reagents. There was no apparatus or teaching aid.

The pitiable situation in this country is that Nigeria has so many scientists, technologists and educationists that one would have expected that if the nation is not proficient in any other field, it should have been in education. With over 100 universities and many polytechnics and other tertiary institutions, the turn-out of high level man-power should have been formidable. But the cankerworm of corruption and the inadequate consideration for staff of tertiary educational institutions have led to constant strikes thereby watering down even the little imparted to students.

Conclusion

The Nigerian government’s 7-point agenda is laudable if implemented. The government carefully close areas where Nigerians are pinched most. There are other untouched areas anyway. The key point is the area of power and energy. If this area becomes adequate, majority of Nigeria’s problems will show evident signs of improvement, if not total solution. In this country science and technology has not developed sufficiently. But we are not a nonentity with regard to science and technology. We have enough scientists, engineers and technologists commensurate with our level of development. What we do not appear to have is the will to develop ourselves and our infrastructures. The political will is not there. Motivation of our experts is lacking. The government does not appear to have identified the problems or to address them if they have been identified. That is the reason for the brain-drain from this country to greener pastures in the diaspora.

It now appears that in the implementation of the 7-point agenda, the federal government is determined to remove all the obstacles that hitherto hindered Nigerian scientist, engineers and technologists from staying behind in Nigeria to help develop this country for the benefit of all. The next few years will prove whether we have learnt our lesson or not. If we minus corruption and add political will, the 7-point agenda can succeed and Nigeria will achieve the objectives of the millennium development as well as the vision 2020. If the re-branding policy of the government is carefully pursued the 7-point agenda will succeed even better.

Recommendations

No doubt, Nigeria is a giant in population and in self advertisement compared with other nations in Africa and of the black world generally. Inspite

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of the above fact, Nigeria appears mesmerized and confused by its high level of natural resources both in human and material means. Hence other smaller nations around us have overtaken us in development despite our claims of being a giant. Part of our national malaise has been mismanagement of the resources God has bestowed on us. A Nigerian leader once stated that Nigeria had enough resources but that our problem was how to manage the resources. Consequently, the 7-point agenda must not be mismanaged otherwise the nation will be worse for it.

Corruption has been the major bane of Nigeria's development. For instance, what is technologically called "oil blocks" are conceded to prominent politicians and individuals to own oil wells and privately lift the crude for themselves and their families, with the result that such persons are actually billionaires and trillionaires in the midst of a very poor populace. If we do not devise a mechanism to halt corruption, the 7-point agenda may fail – God forbid!

Lack of political will is also one of Nigeria's worst problems. If the 7-point agenda is not driven with practical and visible political will, Nigeria will pay a great prize for its inactivity. For instance, if the Amnesty programme is not strictly implemented, youths of the Niger Delta may take up arms again to the chagrin of the nation. Thus, good management, avoidance of corruption and astitute political will are recommended in order to achieve the 7-point agenda and the development of Nigeria.

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