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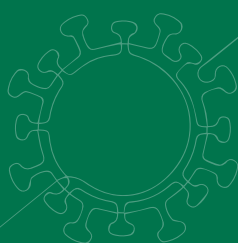
The Impact of COVID19- on Health, Education, Research and Development in Nigeria





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Abstract

Purpose

The purpose of this paper is to present a general observation on the impact of the dreaded COVID-19 pandemic on education and health in Nigeria, and suggests possible strategic plans for the future. We note the wonderful efforts of the President of the World Association for Sustainable Development (WASD), Professor Allam Ahmed, in holding a series of interactive panel sessions at international level on this timely and global topic. These debates were in preparation for WASD's International Conference of WASD held in July 2020 on this health pandemic. This paper contributes to the timely global sharing of information on the global effects of this pandemic.

Design/Methodology/Approach

The President of Nigeria, His Excellency Hummadu Buhari, established a Presidential Task Force (PTF) on COVID-19 with the Secretary to the Federal Government, Hon. Barrister Boss Mustapha, as the Chairman. The taskforce had the visibly active participation of the Federal Ministry of Health (particularly the newly created National Centre for Disease Control-NCDC, National Food and Drug Agency), Ministry of Education, and Ministry of Humanitarian Affairs, Social Development and Disaster Management, with various appropriate Agencies.

Findings

This disease arrived in West Africa in February 2020, and the whole region is at a standstill, like other parts of the world. Nigeria is no exception, and the initial epicentres are Lagos, Ogun State (with the index case) and the Federal Capital Territory Abuja. Except for Cross River State, all the 35 state capitals and Abuja, the Federal Capital, have reported cases, with Kano State becoming another big epicentre because of its population size. As of 30 June 2020, there were a total of 25,713 tested positive cases, with 9,745 discharged from hospitals and 590 deaths. At zoned levels, the South-West zone has the greatest number with 19,425 cases, followed by North-West (5,617), North-East (2,645), South-South (2,614), and North-Central (1,602), with South-East (1,502) having fewest incidences. These results are in reference to the global total of over 10,487,022 cases with 511,546 deaths. The data on the incidences in Nigeria, together with the impact on education at national, zoned, and state levels is planned for January 2021; these will be collated and accordingly published.

Originality/Value

These results give evidence to the presence of COVID-19 in Nigeria as part of the monumental global economic, educational and health crisis that has befallen humanity since December 2019, originating in Wuhan, China. We make imperative investigation into the future for Nigeria's sustainable education (with implications for the significance of e-learning), research and development post-COVID-19.

Keywords

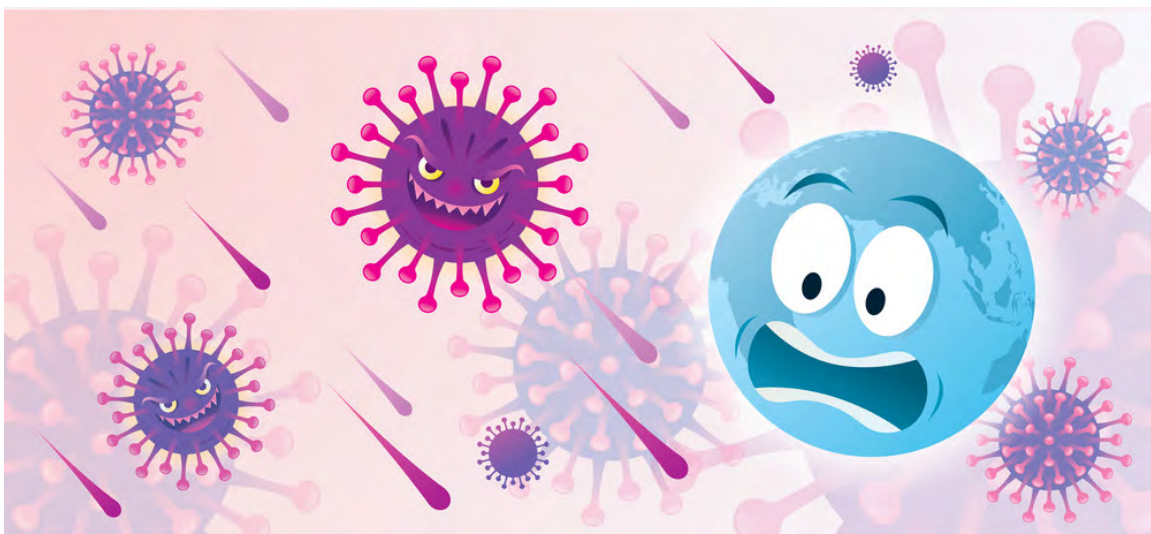
COVID-19, health, global pandemic, epicentres, impact on education, e-learning, research and development, Nigeria.

Introduction

The remarks of Honourable Dr Gale T.C. Rigobert of Saint Lucia earlier during a WASD panel discussion on the de-globalisation effects of the COVID-19 pandemic, indeed caught my attention. While she was right in that national leaders are now most concerned in managing their national health crisis, it seems as if the whole world is fighting the third world war against one enemy, the coronavirus that causes COVID-19. Everyone is concerned: the youth, the adults, parents and the aged; the super-rich, the rich, the poor and the super-poor countries are all in a state of hurt.

Except for the Second World War, no event in recent history has globally touched and brought humanity together in the past 100 years as COVID-19; it is as though this is a preview to the end of the world,

or the end of human civilisation. The world is now a huge village; any outbreak would reach every nook and corner of the world in no time at all. This disease reached West Africa in February 2020 and the whole region is at standstill, like other parts of the world. My country, Nigeria, is no exception; the initial epicentres are Lagos, Ogun State (with the index case) and the Federal Capital Territory Abuja. Except for Cross River State, all the 35 state capitals have reported cases, with Kano State becoming another big epicentre by June 2020 because of its population size. This paper is subsequent to keen observation and careful noting of events since the arrival of COVID-19 in Nigeria; we plan to continue to record these events until at least early 2021.



Design/Methodology/Approach

Much of the material for the paper was obtained through documenting information provided by print and electronic media, the daily national briefings of the Presidential Task Force (PTF) on the management of the Coronavirus (COVID-19) in Nigeria, especially the credible work and report of the Federal Ministry of Health (buttressed by its Agency, the Nigerian Centre for Disease Control (NCDC)). The electronic news media has become increasingly important in

view of national lockdowns that restrict movement of people and goods. The invaluable pieces of information from the Federal Ministry of Education and its many Agencies, Federal Ministry of Finance, Federal Ministry Foreign Affairs and the World Health Organization (WHO) have been utilised in developing the paper.

Findings

From the records so far, Table 1 summarises the incidence of COVID-19 cases at the State and zoned levels in Nigeria up to the end of June 2020. The table also shows that Lagos State is truly the biggest epicentre of the disease in Nigeria, affecting the business capital of the country. Of the total

19,425 cases in South West Nigeria, Lagos has 16,061 cases, representing 83% of the total (Figures 1-9). In fact Lagos accounts for 42% of all confirmed cases in the country. The South East has the lowest number of cases with 4% of the total.

Figures 8 and 9 show the magnitude of the problem in relation to the zone and state configuration.

Table 1: Zonal and State Incidence Of Covid-19 In Nigeria And Future Implications

		Monthly totals				
I	SOUTH WEST	March	April	May	June	Total (March to June)
1	Eketi	2	7	20	43	83
2	Lagos	75	644	4,832	10,510	16,061
3	Ogun	5	28	274	825	1132
4	Ondo	-	6	25	290	321
5	Osun	5	32	45	125	207
6	Oyo	7	17	252	1,380	1656
	Sub Total	97	734	5,448	13,173	19,425
II	NORTH EAST					
7	Adamawa	-	2	42	84	128
8	Bauchi	2	25	270	503	800
9	Borno	-	61	298	493	852
10	Gombe	-	51	160	503	714
11	Taraba	-	2	18	19	39
12	Yobe	-	1	52	59	112
	Sub Total	2	142	804	1,659	2,645

III	NORTH WEST	March	April	May	June	Total (March to June)
13	Kaduna	2	37	245	766	1,155
14	Kano	-	136	992	1,216	2,344
15	Katsina	-	29	373	557	959
16	Kebbi	-	-	32	79	110
17	Jigawa	-	5	285	318	608
18	Sokoto	-	18	116	151	285
19	Zamfara	-	4	76	76	156
	Sub Total	2	229	2,119	3,163	5,617
IV	NORTH CENTRAL					
20	Benue	1	1	7	53	62
21	Kwara	-	9	86	217	312
22	Kogi	-	-	2	4	6
23	Nasarawa	-	1	76	213	389
24	Niger	-	2	32	116	150
25	Plateau	-	-	103	382	485
	Sub Total	1	13	306	995	1,602
V	SOUTH EAST					
26	Abia	-	-	10	310	320
27	Anambra	-	1	11	75	87
28	Ebonyi	-	1	36	438	475
29	Enugu	2	3	18	261	284
30	Imo	-	1	36	332	369
	Sub Total	2	6	91	1,418	1,532
VI	SOUTH SOUTH					
31	Akwa Ibom	-	-	35	86	139
32	Bayelsa	-	-	21	205	226
33	Cross River	-	-	-	2	2
34	Delta	-	4	77	965	1,046
35	Edo	3	29	244	1,105	1,381
36	Rivers	1	3	178	1,056	1,238
	Sub Total	4	36	555	3,435	4,032
37	FCT	21	123	600	1,870	2,614
	TOTAL	126	1,283	9,923	25,713	37,467
	Discharged	-		3,007	9,745	9,745
	Deceased	-		287	590	590

Source: Devised by author

The impact of COVID-19 on the economy in Nigeria and the world is very bleak. By 13 May 2020 the following had happened in Nigeria:

1. hotels had lost so much business that laying off staff was the only viable option;
2. fund allocation to Federal, State and Local governments dropped by 10%;
3. some States had to shelve implementation of the minimum wage agreed upon;
4. there were fewer petroleum exports, and the price of the commodity dropped to US\$20/per barrel;
5. suspension of some capital projects and beginning of review of 2020 Budget downwards;
6. overhead expenses were cut by 50%;
7. suspension of employment indefinitely and foreign trips restricted;
8. all schools, colleges and universities were closed by third week of March 2020.

The above have had indelible negative effects on the economy. Currently, the world is already approaching the worst economic depression similar to that of the 1930s. The present situation is like a World War and this may negatively affect the 17 novel programmes of the UN Sustainable Development Goals 2030.



Figure 1: Incidence of COVID-19 in South West

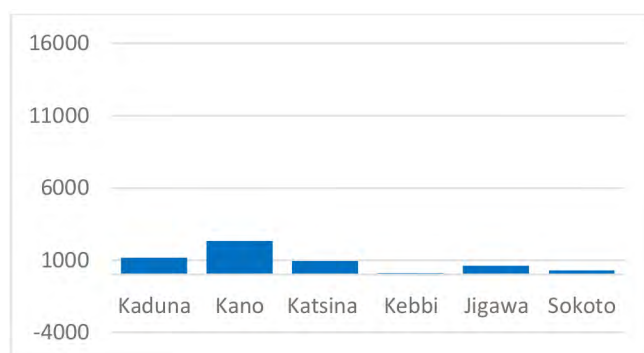


Figure 2: Incidence of COVID-19 North West

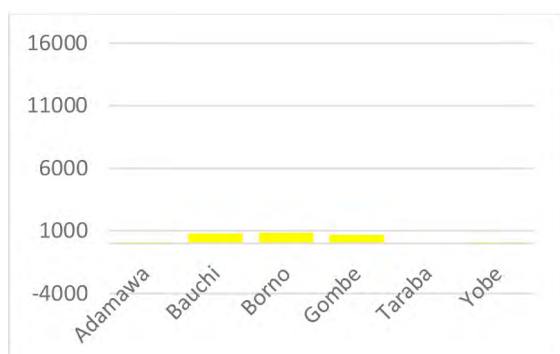


Figure 3: Incidence of COVID-19 in North East

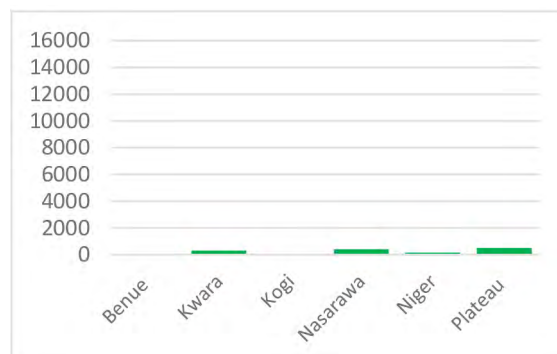


Figure 4: Incidence of COVID-19 in North Central

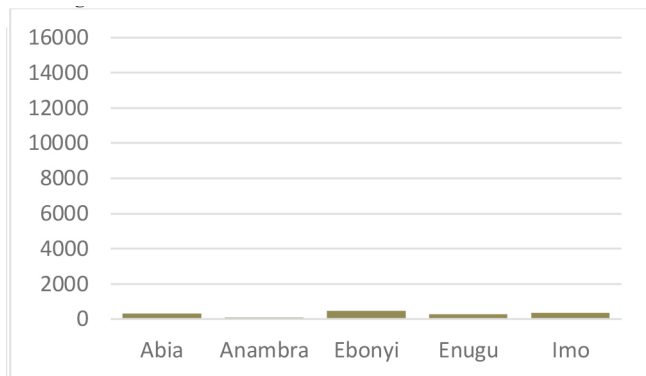


Figure 5: Incidence of COVID-19 S in outh East

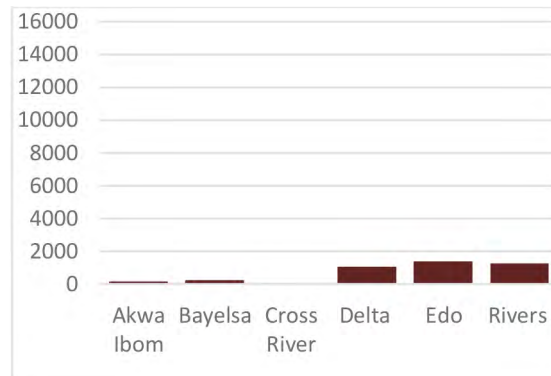


Figure 6: Incidence of COVID in South South

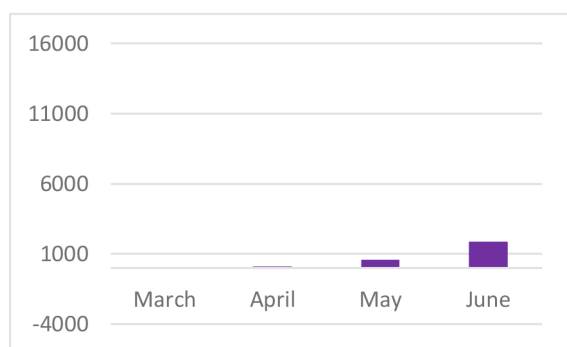


Figure 7: Incidence of COVID-19 in the Federal Capital Territory

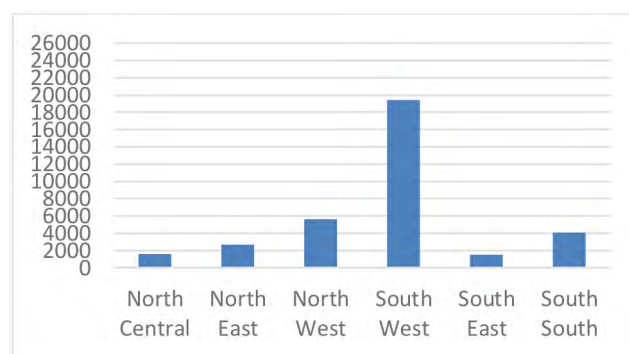


Figure 8: Total COVID-19 Incidence in March-June 2020

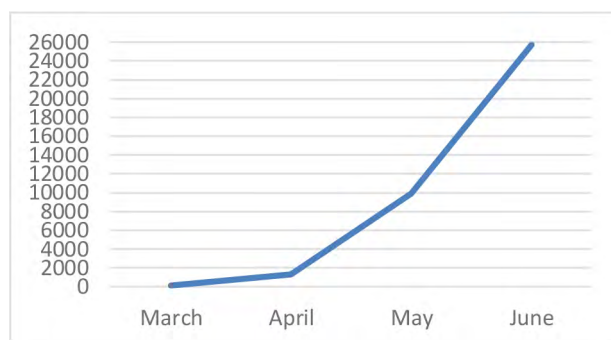


FIGURE 9: Total COVID-19 Incidence in Zonal and States of Nigeria, March-June 2020

The impact on education and research has been described as disastrous and the calendar year 2020/2021 is seen as a wasted academic year educationally. All schools are now closed, all Colleges and Universities have been closed since March 2020, and one cannot say when they will be opened in the future. Even if they are opened, it will take time for them to become stabilised. This is because disease spikes could happen in view of the uncooperative behaviour of the public regarding interventions such as social distancing, respiratory and hand hygiene. No one can tell when the disease will end. Therefore, there cannot be any normal teaching or lecturing for the time being. It is said that

there is some online instruction being carried out. It is not known who can sustain that system during lockdown, even at Open Universities or private Institutions. Can the required pieces of equipment, technology and materials be satisfactorily sourced for this purpose on an emergency basis? Even lecturers would need to be oriented and would have to adapt to the online system. In rural areas, Internet penetration is low and information and communications technology (ICT) equipment costs are inaccessible to those of lower socio-economic status. With losses in family revenue, more children are likely to drop out of school to support the family income.

Discussion and Conclusions

Any disruption in the educational process affects the quality of education, research and development; these are the real foundations of knowledge for innovative activities and development. In fact, it has recently been reported that the considerable technical and administrative progress made, especially by developing countries, has been wiped out by the arrival and the effects of COVID-19.

This problem has triggered debates, consultations, meetings and conferences, in particular the holding of a series of Panel Discussions and Debates chaired

by Professor Allam Ahmed, President of the World Association for Sustainable Development (WASD) with topics such as “Future of work in post COVID-19”, “The African continent challenges in dealing with COVID-19”, “Impact of corona like pandemics on higher education research and governance strategies” (in which I participated), “Increasing relevance of the knowledge economy in the post-COVID-19 era”, “The future of youth in post-COVID-19”, “Black lives matter”, and many others. This incited a huge global response and positive interaction.

At the local level, there was a One Day Virtual Interactive Conference on the Coronavirus Pandemic (COVID-19) and the University Education System in Nigeria at the University of Maiduguri (Dzivama, 2020); this provided an encouraging opportunity for a critical assessment of the problem by the public. Three key papers were presented:

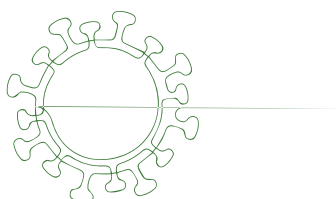
- COVID-19 and the University System, presented by Dr Dinder (2020): this stated that careful planning is key to the survival of the University system after the dreaded COVID-19 is over;
- Lessons and Strategies for Leveraging on Digital Transformation Tools, presented by Abdul-Aziz and Kanya (2020): this paper emphasised the need to develop e-learning to attain flexibility in sustaining educational activities in times of emergency; and
- University Education System and COVID-19: The American Experience, presented by Professor Esiobu of Florida Atlantic University: the paper explained that even in conventional Universities in America, e-learning has been strengthened to provide for increased capacity to reach students in possible lockdown situations in the future.



The fact that this was a virtual interactive conference with the erudite microbiologist Professor N. Esiobu (2020) speaking from Florida (at 5.00am), augurs well for huge successes for future virtual interaction.

The premier Vice-Chancellor of the National Open University of Nigeria (NOUN), Professor Emeritus Olugbamiro Jegede (2020), was elated when he strongly recommended open and distance learning for Nigeria throughout COVID-19 pandemic. He called for an immediate high-powered committee or task force to comprehensively plan for the massive introduction of online learning needed because of COVID-19, and to plan for future sustainable education. It was also with special appreciation when I, as the premier Pro-Chancellor of NOUN, accompanied him and the Registrar of the

University in 2006 to the Presidential Villa to register the former President, His Excellency Dr Olusegun Obasanjo for a course at NOUN; little did we know that the celebrated former President, noted as an workaholic, would go on to obtain his Doctor of Philosophy (PhD) degree at NOUN. We thank him for enhancing Open and Distance Learning (ODL) in Nigeria. The National Universities Commission that is responsible for quality programmes in the University system should encourage ODL in all Universities in the country in order to increase flexibility in education. The Tertiary Education Trust Fund may provide finance for procuring the very expensive pieces of ODL equipment.



Research Development

Regarding the current situation for research and strategic development, heightened efforts are concentrated on the development of a vaccine for protection against coronavirus and COVID-19. It is reported that 89 possible vaccines are at the developmental stage and some may be at field trials levels. In Nigeria, research is currently in a visible state of collapse because even the essential technical support groups have been ordered not to be on duty in the laboratories during the lockdown period. This is unfortunate because the Tertiary Education Trust Fund, an Agency of Nigeria's Federal Ministry of Education, is allocating huge amounts of money in support of research, development, and conference attendance.

It is understood that US\$75 billion has now been sourced by some committed nations for global management of the disease. A good percentage of this money should go to the World Health Organization (WHO) how have been praised by the Chairman of the African Union, HE President Ramaphosa of South Africa, for performing well during the pandemic. But for WHO guidance in this matter, one wonders what would happen to people in the world's poorest countries. Some percentage of this and national resources should provide insurance for the courageous and determined health workers of the world that are managing and taking care of the sick. Personal protective equipment (PPE) is a must for this group of committed workers, and this should urgently be provided for them through the national and global level by WHO. Apparently PPE is being provided by WHO through the global pipeline; this should be supported financially.

It must be mentioned that the policy of "One Health" being promoted by WHO must be taken seriously at national and regional levels (Gadzama, 2019). Therefore budgets for education, primary health care research and development should be favourably reviewed. According to the communiqué of the meeting of West African Ministers of Health, Environment, Agriculture and National Planning, the health of citizens, workers, farmers and their livestock (including wildlife with zoonotics), farmers' crops, the environment and other valuable plant

primary producers is now "One Health"..

Even when the COVID-19 pandemic is over, it will take time before normal conventional research is sustained because of the economic devastation caused by the disease. Already the world is approaching the worst economic depression similar to that of the 1930s. The present situation is like a World War and this may negatively affect the noble 17 programmes of the UN Sustainable Development Goals 2030.

Wuhan in China is luckier than Lassa in Nigeria because the Lassa viral fever was named after the town. As this pandemic has been named COVID-19, it is unlikely that the stigmatism experienced by Lassa will ruin all the scientific and business achievements in Wuhan. It is good that the WHO does not now encourage the naming of viruses after towns or places of first case detection.



Governance Strategies

Lockdowns are abnormal situations and not conducive to democratic processes; therefore they could easily trigger resentment such as seen in Lebanon and Hungary. National Assemblies are unable to easily carry out their oversight functions with irregular meetings during lockdowns.

- The financial burden of providing palliatives for the poor under lockdown is quite heavy and should be a collaborative effort between the executive central government and the States with less consideration of politics as lives are at stake. Because of the large number of people to feed and the poverty level, governments are now beginning to relax lockdown; however, this may be counter-productive as new cases may begin to peak, as seen in Ghana and the USA;
- As of June 2020, over 10,487,022 cases have been reported globally, with 511,546 deaths. In Nigeria, the virus has infected 37,467 people, killing 590 but with 9,745 recoveries.

Conclusions

It is indeed fair to conclude that the present experience should be a call to duty for humanity. This is particularly true for advanced countries with stockpiles of very dangerous weapons of mass destruction (WMD), nuclear, biological, biochemical, etc. The world is now a huge village; any negative outbreak would reach the corners of the world in matter of hours. What is most important now is to direct serious research towards scientific endeavours in vaccine development.

The disease reached West Africa in February 2020 and the whole region is at a standstill, like other parts of the world. Nigeria is no exception: the epicentres are Lagos, Ogun State (with the index case) and Federal Capital Territory Abuja. Except for Cross River State, all the other State Capitals have reported 37,467 cases with 590 deaths (1.5% of the total number of infections).

Once again our appreciation goes to WASD for the opportunity to share our thoughts and exchange ideas on this most important Coronavirus disease (COVID-19); a very topical global issue of the world.

Thank you; God Bless and may we be protected from COVID-19.



Conflict of Interest Statement

I declare that I have no conflict of interest.

Acknowledgements

I acknowledge and welcome the synergy provided by recent activities of national and international groups on Coronavirus and COVID-19; in particular the holding of a series of panel discussions and debates chaired by Professor Allam Ahmed, President of the World Association for Sustainable Development (WASD), and to Professor A. Dzivama for organising the One Day Virtual Interactive Conference on the Coronavirus Pandemic (COVID-19) and University Education System in Nigeria at the University of Maiduguri. Both represent encouraging signs of a critical assessment of the problem by the stakeholder public. Nigerians appreciate the work of the COVID-19 Presidential Task Force in Nigeria in managing the disease in the country. I also wish to thank Professor A. Rasheed (Executive Secretary of National Universities Commission), Professor S. Bogoro (Executive Secretary of Tertiary Education Trust Fund), and the University of Maiduguri for the encouragement and support for my presentation.



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Biography

Prof. Njidda M. Gadzama OFR, FAS is Emeritus Professor of Zoology and Environmental Science at the University of Maiduguri, Borno State, Nigeria. He is an academic leader having been pioneer Pro-Chancellor of the National Open University of Nigeria, Vice-Chancellor, University of Maiduguri, and the Acting Vice-Chancellor, University of Port Harcourt. He is currently the Chairman of the Standing Committee of Research and Development of Tertiary Education Trust Fund of Nigeria. He has a BA (Biology), from McPherson College, Kansas (1964), an MSc (Zoology), Long Island University (1967), and a PhD (Entomology), New York University (1971). He has more than 90 scholarly publications in refereed journals, conference proceedings, edited books, monographs and reviewed many scholarly journal publications. He is also the founding Director of Centre for Arid Zone Studies and Biotechnology Centre at University of Maiduguri.

