

HARNESSING INFORMATION AND COMMUNICATION TECHNOLOGY (ICT) FOR THE MANAGEMENT OF UNGOVERNED SPACES IN NIGERIA: POLICY AND STRATEGIC WAY OUT

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Abstract

Since 2008, the Federal government has witnessed series of security challenges predominantly Boko Haram insurgencies, banditry, kidnapping, separatist agitations and piracy operating from thick forests, largely ungoverned. Efforts by the government to eradicate these criminals have been taking serious economic hardship on the government and the people. This paper interrogates the need for the use of technology-driven approach (drones) to the management of ungoverned spaces in order to make government more responsible to the people in those territories as well as handle the miscreants therein now. This study therefore investigates how Information and Communication Technologies (ICT) can be used as a driving force to curtail criminal activities in these spaces and examine the existence of policies to drive utilisation of these technologies. The study carried out a field study on the subject matter and observed that interagency corporation, funding, data gathering and a holistic policy document addressing utilisation of comprehensive approach to the management of ungoverned spaces are ways forward in Nigeria.

Keywords: Ungoverned spaces, Security, ICT, Policy and strategy, Drones

1.0 Background

In recent times, Nigeria has been bedevilled with myriads of security challenges, ranging from Boko Haram insurgencies, banditry, kidnapping, herder/farmer clashes and piracy. These insecurities are occurring almost simultaneously with a common shelter for these crimes being the forest – an ungoverned space. Nigeria is blessed with a total land area of 91,077,000 Ha (910,770 km²), a total forest area of 11,089,000 Ha (110, 890 km²), which is

12.18 percent forest cover (FAO, 2019). These forests are blessed with multifarious ecosystems and diverse biodiversity, which should have been utilised to achieve sustainable livelihood, industrial raw materials, food security, reduce poverty and hunger in the land.

Nigeria, for administrative purposes has equally divided the total land area into units, divisions, zones for effective policing. All the security, intelligence and military institutions are also distributed to cater for everywhere. The implication of this division is that there exists no single land that is not covered by country defence, security, intelligence and police machineries. In terms of governance, the 774 local governments in the country were also created to ensure even development of their domain. Thus, there is no section or unit of land that does not belong to a local government, and these areas are equally manned by security, police and intelligence agencies in the country. The question therefore is why any part of Nigeria would be an abode for criminals and national security threatening activities.

It could be understood that these ‘ungoverned spaces’ were as described by the Office of the Foreign and Commonwealth (2015), where they are regarded as a territory, physical or non-physical, wherein control and effective state sovereignty is non-existent. It further stated that they are places where state institutions and rule of law perform insignificant or no function. Thus, these ‘ungoverned spaces’ serve as criminal safe havens where they ‘organize, plan, raise funds, communicate, recruit, train, transit, and operate in relative security’ (Villarosa, 2011). In the foregoing, Nigeria has a large land area in the form of forest nature, desert nature or water nature such as Sambisa forest in the North-West, the creeks in the South-South and similar areas in Nigeria are left un-manned and un-catered for by civil government or security agencies and have now been used by criminals and bandits in Nigeria. These areas do not have the presence of a security agent/force and not manned with technology, therefore providing a great opportunity for criminals/militants/bandits to use such areas as hideouts and camping ground to perpetuate all kinds of activities that affect national security. These areas are ‘underdeveloped with no structures (Banks, Communication etc.), located in remote locations, poorly controlled land or maritime borders or airspace; or areas within otherwise viable states where the central government’s authority does not extend’ (Rebasa et al., 2007).

This paper argues that despite these challenges, these ‘ungoverned spaces’ can be manned by Information and Communications driven Technology (ICT). It is posited that ICT could play a major role in manning/protecting these ungoverned spaces in Nigeria. One of such technology is the use of drones to monitor and police such spaces and raise a red alert to the central/state/local government when any suspicious activity is noticed in such spaces. A drone, also known as an Unmanned Aerial Vehicle (UAV), is an aircraft that operates without a human pilot on board and operates with autonomy that is under the remote control of a human operator (ICAO, 2016).

This technology has being used in Indonesia, to peruse a forest area to obtain the vastness of the forest area, human activities in and around the forest and other relevant information. According to Chamberlain (2018), drones have been used by United States on the battlefield as well as for counterterrorism purposes. Also, United Kingdom used drones to track Reyaad Khan, a British citizen, who was an Islamic State terrorist based in Syria, as targeted missiles to the purported places of hiding yielded no result (Guardian, 2015). The implication of this suggestion is to place Nigeria in the world map of those using drone

technology in manning areas where they cannot place soldiers on a 24-7 basis, and fight against terrorism.

This paper proceeded by examining the extent to which technology has been used to man the ungoverned spaces in Nigeria and the adequacy or otherwise of policies in manning ungoverned spaces in Nigeria.

2.0 Technology, Policy and Ungoverned Spaces: A Conceptual Overview

The literature review proceeds with the examination of scholars' discussion on three major concerns of this paper: the definition of ungoverned spaces; management and mismanagement of the ungoverned spaces and its implications; and the role of technology and related policy in the management of the ungoverned spaces. Several scholars have written on the concept of ungoverned spaces; however, the focus of this paper is to bring out the salient issues on some of the descriptions that have been provided by the scholars and apply it to the case of Nigeria. The Ungoverned space is regarded as a physical or non-physical landmass where there is non-existence of state's presence and lack of capacity to control the space (Whelan, 2006). Although there are other definitions, this definition is adopted in this investigation because of the current situation in Nigeria and the challenges currently faced in the North Eastern part of the Country.

The physical space can be land area, such as forest areas that cover from the Cross River forest, connecting Sambisa forest in Maiduguri via Bauchi - Jos axis to Katsina, Zamfara up to Kebbi State in Nigeria. It can also be the Niger Delta area that is marshy and unliveable; or maritime areas, such as the Atlantic Ocean. By non-physical space, Whelan (2006) opined that this is a financial space where the criminals, bandits or terrorists raise and move monies and other resources without any impediment; whether technological driven or legal. This paper agrees with Whelan (2006) in his inclusion of financial space as part of the ungoverned space. Until recently, Nigerian government through the Nigeria Communication Commission (NCC) fined the MTN telecommunication for inability to provide details of registration of SIMs that were purportedly been used by terrorists in the North East region of the country after the deadline given by the NCC. It was argued that the SIMs were used to upload information on you-tube and other social media but their non-registration prevented their traceability.

Similarly, the United States Department of Defence described an ungoverned space as 'a place where government at all or any level is incapable or unenthusiastic to control, effectively administer, or have an influence on the local population' (OUSD, 2007). The US Department of Defence further described the space as a location where a sovereign government does not fully govern. That is under-governed or ill-governed, as a result of measures, not limited to issues like lack of capacity to govern, deficiency in political will, acceptability of the government, unresolved conflict, or restrictive norms of behaviour. This definition, not only defined the ungoverned space but went ahead to state reasons why they may remain ungoverned. It is noteworthy to state that all the reasons raised as responsible for the creation and existence of this space are applicable to Nigeria and most of the regions in Africa.

As alluded to earlier, despite the classification and assignment of all parts of the country for management by the Local Government, State Government and the Federal

Government, government agencies like Police, State Security Agency, Civil Defence Agency also have their jurisdiction clearly covering all parts of the country including these spaces referred to. The reality is that these spaces are still in existence, and serve as breeding ground for criminals and terrorists. One of the most striking issues in the description of US Department of Defence is the lack of enthusiasm and incapability to influence the local population which can only be achieved if there are deliberate measures (political will) to involve them in decision making. However, the leadership in Nigeria pride themselves in the capacity to do or achieve whatever they want without the support of the local population. Thus, the threat emerging as a result of under-governed and ill-governed spaces was the aftermath effect of the way the place is governed.

However, competing needs in governance have been blamed as the reasons a state may be unable or reluctant to manage effectively certain areas of its territory (Foreign and Commonwealth Office, 2015). For instance, lack of adequate resources to implement extensive education programmes across the length and breadth of a state and reliance on Federal government by the local and state governments slow down external support to education and health of Nigeria children.

Also, a reduction in State Government internally generated revenue as well as federally generated revenue due to decreased crude oil exploration and the global economic meltdown, have implications on the number of projects to be executed. Lacuna in legal regimes of the State, coupled with corruption and selectivity in the enforcement of law, open the opportunity for the exploitation of legal rights and principles in the country. A situation whereby criminals apprehended are dealt with according to the rule of law will send good signals to other people and ensure compliance.

The Foreign and Commonwealth Office (2014) also raised other management issues that are responsible for the creation of ungoverned territories. These are the impact of the collapse of the local government and the inability of the state government to take charge. Some other management issues are unresolved pre-existing social and cultural opposition to government authority. In Nigeria, many socio-cultural groups emerged and operate with semblance of governance and military offshoots. This sometimes creates confusion as to who is actually ruling the state. Thus, it is easier for criminal/terrorist groups to emerge using existing grievances as a foothold. More so, there are various regional and tribal grievances which sometimes are hijacked for ethnic or regional fight. In all this, as expanded by the Office of Foreign and Commonwealth Office (2015), Nigerian State does not have the monopoly of force

There is the existence of Odua People's Congress (OPC), Movement for the Actualisation of Sovereign State of Biafra (MASSOB), Northern Arewa Youths, with access to arms and the implication for criminality increases the likelihood of terrorist presence. Thus, a local population with allegiance to their tribal and regional group having access to arms, could be overrun by criminals and serve as armed recruits. Other issues highlighted that affect the management of the ungoverned spaces were poor border control that allows criminals/terrorists to move freely between countries favourable demographics, as it is obtainable in the North East, Nigeria; a pre-existing state of violence (politically and religiously mediated) among others (Robert, 2012).

In terms of the role of technology and technology driven policies and their implication on management of ungoverned spaces, it was established that generally the presence of/or lack of an adequate level of infrastructure pose a threat to the management of ungoverned spaces. Since, according to the Office of the Foreign and Commonwealth (2015), criminals/terrorists work best with technology in deserts, mountains or caves. The criminals utilise communications infrastructure to maintain contact with their group, other like-minded groups and potential new recruits. Thus, provision of access to telephones and the internet to everyone will reduce the impact of the criminals since their attacks can be reported, tracked and escalated. The same argument applies to transportation, which can allow access to receive fighters, goods, and weapons, as well as for counter attack purposes. However, to what extent can the ungoverned spaces be accessed in terms of communication, transportation, existence of a bank and in fact security? More worrisome is the fact that most of the security apparatus, good road network, communication and internet are concentrated in the urban areas. The miscreants can afford the use of sophisticated communication gadget like cellular phones and can be on motorcycles in the rugged areas. Would it then be possible to carry out counter attack with cars on rugged road and no sophisticated communication gadget in the jungle?

Then what about the policies to manage the ungoverned spaces by putting them under states' control? According to Keister (2014), most policies developed in the United States were to encourage host states to integrate these areas to improve the government's provision of services and political representation. Specifically, Keister (2014) suggested replacing or reforming them; out-competing for locals loyalty; or co-opting and using them as local governance contractors. However, one of the technologies that have been employed for military and counterinsurgency in the world today is the drone. According to Kailash (2011), drones are the weapons developed after the post-Cold War to predict international troubled environment. Drones are designed to move with speed through vast geographic spaces, and are therefore used as a mechanism for a global policeman to maintain order over distances. According to Kailash (2011), America utilised drones in Iraq for surgical strikes and a counter-terrorist effort because of its timeless and space-less potentials and lack of casualties, which shields the use of drones from public opinion.

The application of drones spans across various fields and countries have applied it to numerous areas; according to WHO (2019), the Rwandan government utilised a drone named 'Zipline' to enhance the service delivery in the health sector by delivering blood to patients in areas where they were needed urgently from blood banks. This feat saved numerous lives and reduced the number of hours required to deliver blood to sick patients in remote and rural areas. Thus, Nigeria government can be more responsible and responsive to the need of the people in the ungoverned spaces with the utilisation of drones for the delivery of some basic amenities thereby gaining the loyalty of the masses in the area. This will go a long way in winning these people to the fold of the government and make recruitment difficult for the miscreants.

However, one area of concern is the availability of law, spelling out the rules and regulations for the management of the drone technology utilisation in Nigeria. At the moment, the operation of these drones is regulated in most countries by National Civil Aviation Authority. The United States of America has law code named New Small UAS Rule

(107), which is regulated by the Federal Aviation Administration. The rules state that all drones weighing between 0.55lbs and 55lbs must be registered and must operate within a visible line of sight, during the daylight. In addition, the operator of the drone must have a pilot certificate and be at least 16 years of age (Dhande, 2016).

For countries in the European Union, each member state has its national law binding every drone pilot or flyer. The European Union having recognised various forms of laws regulating the use of drones in the Europe countries, made effort to harmonised law for effective control of the use of drones. However, the usage of drones in United Kingdom is governed by Civil Aviation Authority. The Agency stipulates that drones weighing 20kg or less are meant to fly within the altitude of 400 and 500 meters, while commercial purposes drones are to be registered and licensed before use. The law further stipulates that if a drone has cameras attached to it, the drone must not fly within 150 meters in congested areas in the United Kingdom. In the Asia, Australia's Civil Aviation Safety Authority (CASA) states that all drones used for commercial purposes must be registered and certification issued; though drones weighing up to 25kg are allowed for use with registration and approvals (Dhande, 2016).

Nigeria has also enacted rules to govern the use of drone technology for all kinds of purposes. The Nigerian Civil Aviation Authority (NCAA) was saddled with the responsibility of setting-up rules to ensure the safety for the drone users, the populace and the government at large. The rules and regulations include: all foreigners/nationals that want to use Remote Pilot Aircraft (RPA) must request for license from NCAA to fly. The licence will be given upon presentation of certificate to operate a RPA, registration, airworthiness, insurance certificate and any other certificates deemed fit for the flight operation (NCAA, 2019). These rules and regulations in line with international best practices are meant to drive drone technology in Nigeria.

The challenge of interest to this paper is that even though in some of the European countries and United States they utilise drones for some military purposes, how such will operate in Nigeria is still a concern. The NCAA agency is not a military agency and utilisation of drones, as suggested in this paper, will be for military and defence purposes. This purpose, especially to fight terrorism might require secrecy that those in non-military arena may not ensure. Thus, could the coordination of this drone utilisation override the Defence Space Agency or Nigeria Airforce, especially for the military purposes?

This paper proceeds with descriptive data gathering to find out the extent to which drone has been used and the existence of necessary policies to drive its utilisation in Nigeria.

3.0 Methodology

The study adopted a purposive sampling technique, distributing 30 copies of questionnaire to top ranked officers of the military and paramilitary with the ranks of Colonel and its equivalent in other agencies which include the Nigerian Army, Nigerian Navy, Nigerian Air force, Road Safety, Defence Intelligence Agency, NIA, Department of State Service and the Nigeria Immigration Service. The reason for adopting this methodology is to get a first-class opinion of the subject matter from these agencies. Twenty-four copies of the questionnaire were retrieved and were valid. Also, the paper utilises the content analysis of some newspaper and reports to back the result/findings of this work.

The study also used statistical package for social sciences (SPSS) to analyse the data gotten from the field and carried out Key Informant Interviews with a Colonel in the Nigerian Army and a Group Captain in the Nigerian Airforce; reason being that the Armed Forces is charged with the responsibility of maintaining territorial integrity. The following section presents the findings from the study.

4.0 Results and Discussion

The study showed that most of the respondents are male which clearly reveals that males dominate the military/paramilitary sample space and are within the age range of 41-60 years. The study further revealed that all the respondents possessed Ph.D/Masters or B.Sc/HND degrees, which also affirms the respondents were knowledgeable in the area of ungoverned spaces in Nigeria having served the Federal Government of Nigeria within 21-35 years.

a. Extent to which Drones are used in Nigeria

In a bid to ascertain the existence of ungoverned spaces and the level of deployment of these technologies for security intelligence gathering in Nigeria, respondents were asked if ungoverned spaces existed and the extent to which drones are used to man ungoverned spaces in Nigeria. The study revealed that 65.20 percent of the respondents cumulatively concurred that there exist ungoverned spaces in the Nigeria State (Figure 1). This clearly shows that there is urgent need for the FG to find ways to ensure such spaces are properly manned. Some of the ways to achieve this is to employ more security personnel, adopt the use of drones and come up with other developed technology driven approaches to man these spaces.

In addition, 91.3 percent of the respondents (Figure 2) cumulatively admitted that there exist technologies that could be used to man ungoverned spaces in Nigeria. This implies that the presence of ungoverned spaces in Nigeria could be manned using either home grown technologies or adopted technologies ranging from drones, helicopters, CCTV cameras and satellite. This is in concordance with the Nation (2019), where it was clearly stated that ungoverned spaces have been an epicentre of torment to the country and that existing satellite and military helicopter have been helping in aerial surveillance. However, non-presence of government in these areas has served as inhibition to the performance of basic functions such as provision of basic amenities. Thus, as rightly pointed out by Campbell (2018), such lack of presence has supported its exploitation by terrorists who hide there and perpetuate all kinds of nefarious activities across the Nigerian State.

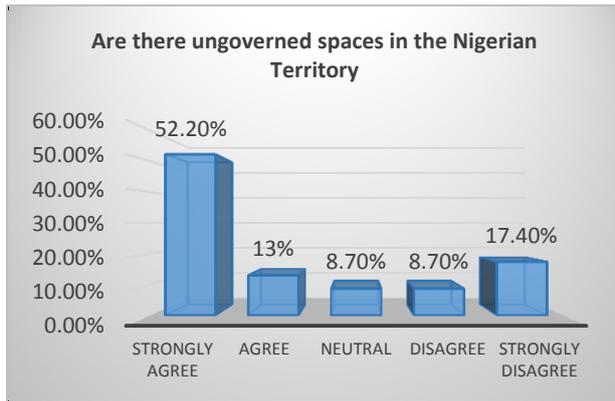


Fig 1: The Existence of ungoverned spaces in Nigeria

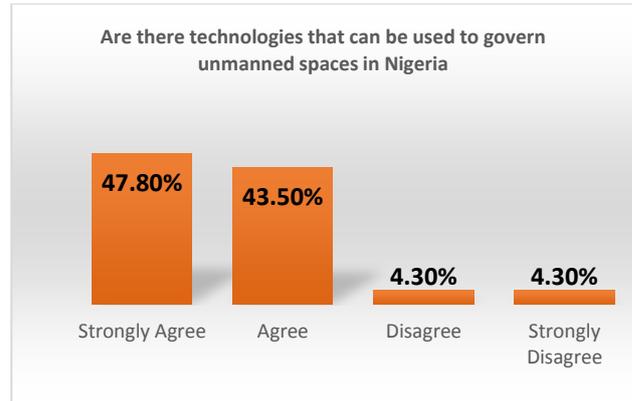


Fig 2: Technologies that can be used to govern unmanned spaces in Nigeria

Interestingly, the Nigerian Minister of State for Aviation, Sen. Hadi Sirika reported that the use of drones in Nigeria has limitless applications (film making, agriculture, surveillance, information gathering). He emphasised that the drone industry is capable of selling about four million drones and generated revenue amounting to about one billion dollars. He further stated that Nigeria will benefit from the drone technology and industry with a strategic collaboration between the International Aviation Organisation and the Nigerian Federal Ministry of Transportation. He however calls for stakeholders support to enhance the modalities of Remotely Piloted Aircraft System operation in Nigeria (Punch, 2017).

Figure 3 depicts that the Nigerian government has not been proactive (52.1 percent cumulatively) in the application of technology to man ungoverned spaces in Nigeria. This implies that the security threats currently ongoing in the State will persist unless the FG decides to be proactive and use the latest technologies to man these spaces. Also, in Figure 4, 29.50 per cent of the respondents indicated that they use helicopters, 21.30 per cent of the respondents indicated that they use drones, 18 per cent of the respondents indicated that they use satellite and 31.10 per cent of the respondents indicated that they use CCTV in surveillance. This is in line with **Agbata** (2018), who posited that the Nigerian government is not doing enough in the adoption of technology to handle security challenges such as in intelligence gathering and also using same to solve the herder/farmer menace.

In furtherance, Ogedebe and Jacob (2012), postulate that Nigerian security challenges can only be managed if the government adopts the use of technology (state of the art surveillance systems) in fighting these challenges. Thus, if Nigerian military and paramilitary agencies use these technologies, the security challenges may be reduced. The argument that they use satellite, CCTV, helicopter and drones is a clear indication that either the data gathered for these technologies are not interpreted accordingly and timely or the personnel using these technologies are not equipped with the technical knowhow to man these technologies.

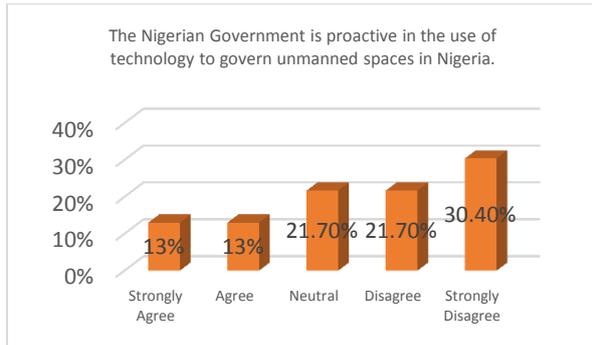


Figure 3: The Nigerian Government is proactive in the use of technology to govern unmanned spaces in Nigeria.

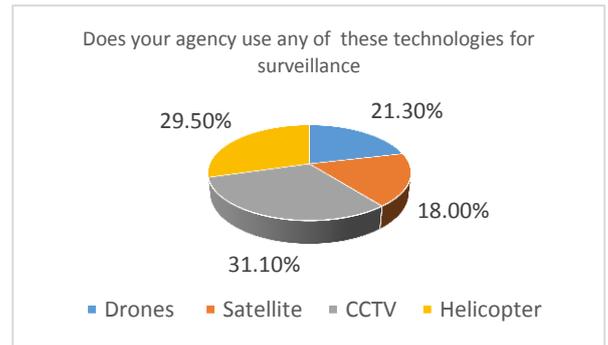


Figure 4: Does your agency use any of these technologies for surveillance

Table 1 shows that the military/paramilitary uses mostly helicopter (25.8percent) and CCTV (41.9percent). Unfortunately, these unmanned spaces are desert / water ways that require the use of drones and satellite for adequate manning and surveillance, and the leaves of the trees in the forest provide shield in the forest, so helicopters would find it extremely difficult to detect any unusual activity in the forest.

Table 1. Frequency of Usage of Technologies

		How frequent do you use these technologies		
		Responses		
		Often	Seldom	Never
	Drones	12.9%	25.0%	42.9%
	Satellite	19.4%	22.2%	21.4%
	CCTV	41.9%	22.2%	21.4%
	Helicopter	25.8%	30.6%	14.3%
Total		100.0%	100.0%	100.0%

The survey shows that the Nigerian government lacks the political will in using technology to drive the security challenges in the country. In a population of over 190million (WHO, 2019), adoption of traditional way of surveillance and policing will continue to stretch and endanger the lives of the security personnel. The use of technology will augment some of the jobs these security agents perform, and make decision making in security matters faster. The use of the technology in Nigeria, according to the survey carried out, calls for immediate action and emergency, especially for effective and efficient surveillance of the unmanned spaces towards achieving better security for the Nigerian state. Generally, findings

revealed that the existing technologies used for surveillance need to be doubled with more attention paid to drones.

b. The Existence of Policies to Drive Drone Utilisation in Nigeria

In an interview conducted, a military officer who pleaded to be anonymous opined that “the Nigerian Government and the aviation industry need to come up with practicable and implementable laws to support the usage of drones both by the government and citizens”. He further stated that “Nigeria was a developing country and that the existing laws on drones were not aligned with international best practices thus, the need for more policies to drive the emergent drone industry with the aim to provide jobs, enhance agricultural practices, surveillance and information gathering” (Interview with a Male Military Officer, 50yrs).

The study further investigated the existence of policies to drive the usage of drone technology in Nigeria and to ascertain if there exists a policy document on the usage of these technologies in ungoverned spaces. Figures 5 and 6 clearly show 95.8percent of the respondents cumulatively concur that information sourced from these technologies are reliable and 75percent of the respondents cumulatively agree that there exist policies that drive the use of technologies in manning ungoverned spaces. Some of the policies or laws referred to were: the Nigerian constitution, National Security Act, FRSC establishment Act, NAMA regulations, Police Act, Nigerian Army Signals Act, Armed forces Act 2003 and NCAA regulations. Unfortunately, these policies are not sufficient and comprehensive enough, especially in creation of enabling environment for the use of technologically driven security equipment like drones to police ungoverned spaces in Nigeria. This is so because none of these policies was setup to directly manage ungoverned spaces in Nigeria. NCAA is however, currently working on a policy document that will allow drones to operate legally and monitored likewise.

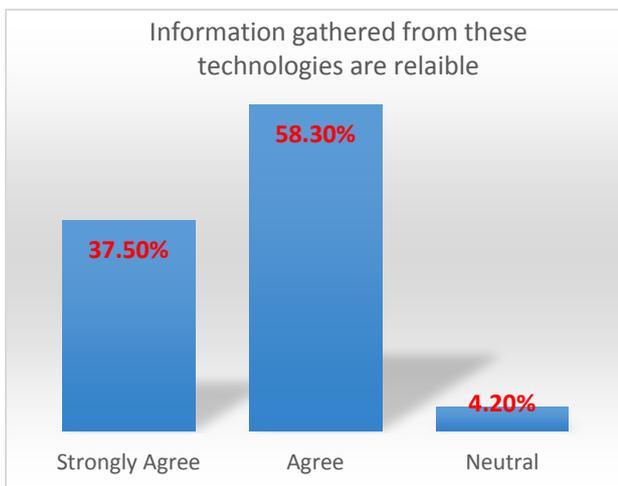


Figure 5: Information gathered from these technologies are reliable.

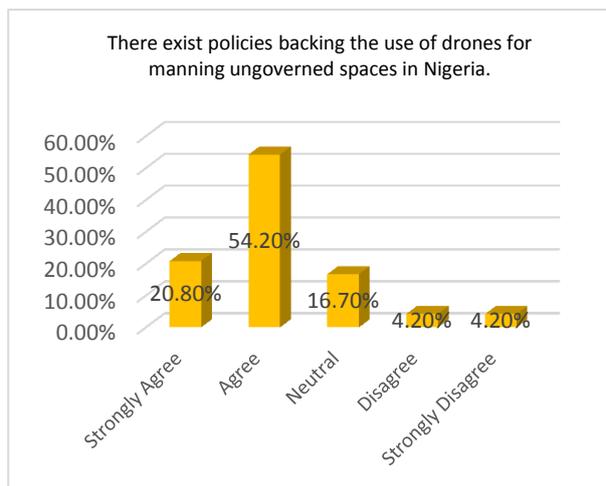


Figure 6: There exist policies backing the use of technology for manning ungoverned spaces in Nigeria.

Finally, Figure 7 shows that the challenges faced by these military/paramilitary outfits include: non- availability of technologies, inadequate manpower, inadequate training to use these technologies, inadequate funding and inadequate policy/legal backing.

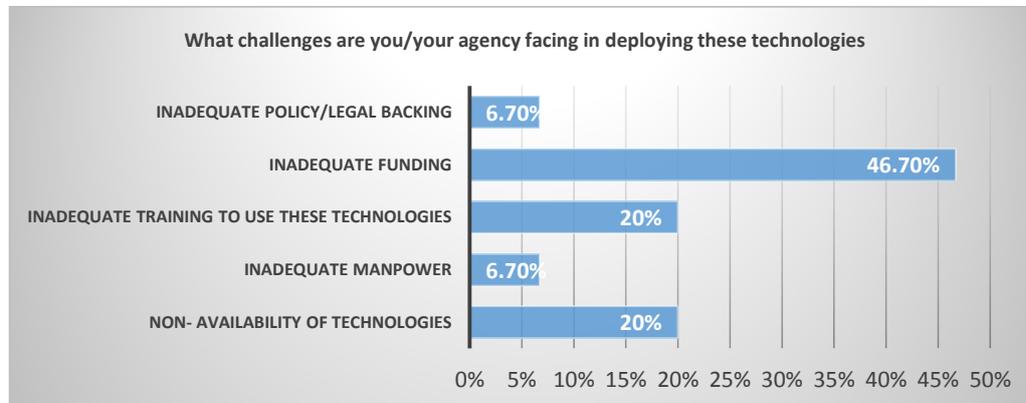


Figure 7: Challenges faced in deploying these technologies

5.0 Conclusion

This study concludes that Nigerian people are aware that they are surrounded by ungoverned spaces and the level of deployment of technologies, especially drones for data gathering in Nigeria is limited. The respondents would be willing to support the Federal Government in the utilisation of drones in managing the spaces especially encouragement of development of either home-grown drone technologies or adopted technologies including helicopters, CCTV cameras and satellite. In return, these technologies would be used to perform basic functions such as provision of basic amenities to people as well as gathering intelligent security data among other functions they can offer. This would be a proactive measure from the government in the manning of ungoverned spaces in Nigeria.

This paper agrees that using technology to drive the security challenges in the country has to do with political will, it is therefore proposing that, in view of low finances and the concept of gradualism, the federal government can mix the traditional way of surveillance and policing with the use of technology to reduce loss of jobs. The paper affirmed the existence of policies that drive the use of technologies in manning ungoverned spaces. These policies include but not limited to: the Nigerian constitution, National Security Act, FRSC establishment Act, NAMA regulations, Police Act, Nigerian Army Signals Act, Armed forces Act 2003 and NCAA regulations. Unfortunately, these polices are not sufficient to police ungoverned spaces in Nigeria as evidenced in the state of security challenges at the moment. A more robust policy needs to be developed for the purpose of holistic management of ungoverned spaces in Nigeria. The paper equally affirmed that the challenges being faced in the deployment of drones and related technologies, were non- availability of technologies, inadequate manpower, inadequate training to use these technologies, inadequate funding and inadequate policy/legal backing. The government should strengthen NCAA and military institutions to influence the utilisation of IT driven technology and reduce the cause of security challenges in Nigeria.

6.0 Recommendations

Based on the results and discussion above, the following recommendations are proffered.

- i. The need for the Federal Government of Nigeria to develop a single holistic policy document addressing the issues of ungoverned spaces in line with the constitution of the Federal Republic of Nigeria.
- ii. The urgent need for the FGN to fund technologies in the security sector, which is to be used as a major means of manning ungoverned spaces in Nigeria
- iii. The need to train and retrain the personnel of the military/ paramilitary on how best to use these technologies as well as interpret data gathered from them.
- iv. To establish a central data generating/storage centre for the military/paramilitary as regards ungoverned spaces and thereafter constitute a joint task force to act on the information gathered.
- v. Institutions should be strengthened to achieve proactive governance and prevent re-occurrence of security challenges.

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