



Reducing Overcrowding in Nigerian Prisons: A Correctional Architectural Approach, Case Studies of Afikpo, Okigwe and Owerri Correctional Facilities.

Cheche, Kalu Kalu; Nwabuna, Nwokedi Patrick; & Ikpa, Ochea Uduma.

Department of Architectural Technology, Akanu Ibiam Federal polytechnic Uwanna.

Abstract

Designs cannot be created in a vacuum but is the result of solving clearly defined problems as expressed in the brief. The creation of the brief through intense discussion with client and deep understanding of the social and penal issues is as important a job for the architect as the actual design work that follows. A prison is neither expected to be exactly a bed of roses as inmates are there for penal purposes nor supposed to be a bed of thorns and thistles meant to snuff life out of the occupants. The prison as an institution does not attract a great deal of public attention, yet it remains a vital part of the structure of any civil society. The apparent neglect of this group of individuals and the conditions of the public prisons and other institutions mandated to manage this system can over time pose significant challenges to the well-being of the society at large. The primary goal of corrections in prison facilities is safety for the community and for those housed and working within the facilities. Correction in overcrowded environment is an impossible task and in recent years Prison overcrowding has become a serious problem indeed. The aim of this paper is to suggest ways overcrowding can be reduced in spaces occupied by inmates with a view to facilitate correction and bring to the fore the architect's role in prison design in reducing overcrowding and enhancing reformation. The

objective includes; x-raying the evolution of prison architecture and the relationship between overcrowding and architectural space and suggesting a design approach that reduces overcrowding and facilitates reformation. This research will be carried out through critical and in-depth study of books, periodicals, internet sources, statistical data mainly from Nigeria shall be obtained and applied, reports from government and relevant bodies or agencies shall be consulted other related literature and case studies will be carried out. Results shows that design approach have always played vital role in reducing overcrowding and could provide a veritable solution to inmate rehabilitation and correction.

Keywords: *prison, overcrowding, reformation, design, Architecture.*

Introduction

The world's prisons are home to an estimated 10 million people globally and this number is rising (Hight, 2016). Around a third of prisoners globally haven't even been found guilty they are on pre-trial detention. The world's prison population has gone up 10% since 2004, and in some countries, such as Nigeria the increase has been steady and consistent. These inmates are likely to be drawn disproportionately from the poorest and most marginalized groups in society, and in some places there are even children living in prisons with their parents in their thousands. These people are not necessarily hardened criminals, According to a recent report by Amnesty International, more than three of every five prison inmates in Nigeria have not been convicted of any offence; instead, they wait years

for their trial in appalling conditions. In developing countries, like Nigeria, they are typically crammed into buildings that are old and uncared for and poorly designed, this situation has led to overcrowded prisons and countless unwanted tragedies. Recently, there are strong accusations by critics that for the thousands of inmates in various Nigerian prisons, hell cannot be worse. This set of people believe that the sanitary condition is not only repulsive, but frighteningly demeaning and exposes the inmates to health hazards as inmates are forced to excrete in buckets and stay with their excreta for days. Feeding is a luxury, bathing is a rarity, recreation is zilch, reformation is non-existent and privacy is a privilege. Hence most people leave the reformatory, frail, fragile and with

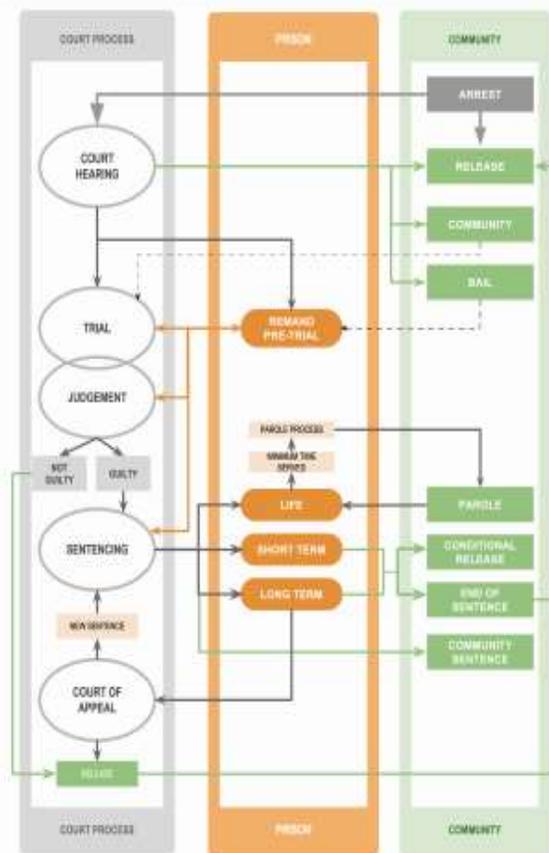
one debilitating disease or the other (New Nigeria, 2006). This runs contrary to what the prison experience is meant to accomplish in the lives of those who transit through them. Prisons are essentially correctional and reformatory, they are not institutions for the dehumanization for the incarcerated. According to the Nigerian prison Act of 1972, which spells out the goals and orientation of the Nigerian prison service, Prisons are charged with taking custody of those legally detained, identifying causes of their behaviour and retraining them to become useful citizens in the society. The present administration under the leadership of Gen Mohammad Buhari, in August, 2019 signed into law the change of name of the Nigerian prison service to the Nigerian correctional service this is in order to kick start the long awaited reform in the prison sector, this new image will make the prison function as a more correctional institution rather than a mere shelter for persons serving jail terms. Correction in overcrowded environment is an impossible task and in recent years Prison overcrowding has become a serious problem indeed; moreover it has become an elusive phenomenon, Overcrowding seems even to represent a characteristic, troubling the modern prison since its invention in the 19th century (Albrecht, 2018). Environmental irritants such as noise, lack of privacy and territory, overcrowding, and lack of color can lead to aggressive behavior, particularly in individuals already prone to violence (Churchman, 2002). Well-designed prison buildings are those which are fit for purpose. And can tackle the problem of overcrowding and correction. According to a British Politician and Prime minister of the United Kingdom of the 20th century, “We shape our buildings and afterwards our buildings shape us” (Wolchenkov, 2008). Leslie Fairweather, (2013) Opines that buildings affect people in so many ways, while some people are deeply influenced by their surroundings, others hardly will even notice their surroundings. Ojo, (2011) Opines, the prison community with its distinct culture and way of life epitomizes a complete design capable of changing the attitudes of individuals’ members for good or bad depending on the personal experience and the social network action. Over the years, Strategies to achieve the goals of reductions in admissions and length of stay in prison to forestall overcrowding has been in the front burner, these strategies in most cases has been purely legal and alternative to trial strategies which includes the use of alternatives to penal prosecution (diversion), the recognition of restorative justice approaches, the use of traditional justice system, decriminalization, reducing the numbers of sentenced prisoners through

effective co-operation between the police, the prison services and the courts to ensure speedy trials and effective case management, recognition of the last resort principle, better access to defense councils, setting targets for reducing the prison population, increased use of proven effective alternatives, imposition of sentences of imprisonment only for the most serious offences and as a last resort and for the shortest time possible, consideration of prison capacity when determining decisions to imprison and the length and terms of imprisonment, implementation of early and conditional release schemes, promotion of promising models for replication, promotion of regional and international Charters on Prisoners' Right etc. however, very little work has been done on architectural solutions and strategies to tackle overcrowding in Nigeria prisons and elsewhere. This study seeks to x-ray Nigerian prison architecture and proffer architectural solutions to the problem of prison overcrowding in Nigeria and establish a more effective design response for Inmates rehabilitation in order to meet the ‘correctional goal ‘ associated with the new name of the prison sector.

Fig 1: Role of prison in typical justice process. (UNOPS, 2016.)

Review of Evolution of Prison Architecture and function.

The early Catholic Church frowned upon the death penalty and other punishments directed at the body; early prison architecture appears to have been modeled after monasteries. For instance, St. John Climacus documented a sixth century confinement of a monk to a monastery or “house of penitents,” not to be released until there was evidence of divine pardon (Johnston, 2000). In 1298, Pope Boniface VIII published *Liber Sextus Decretalium*, therein



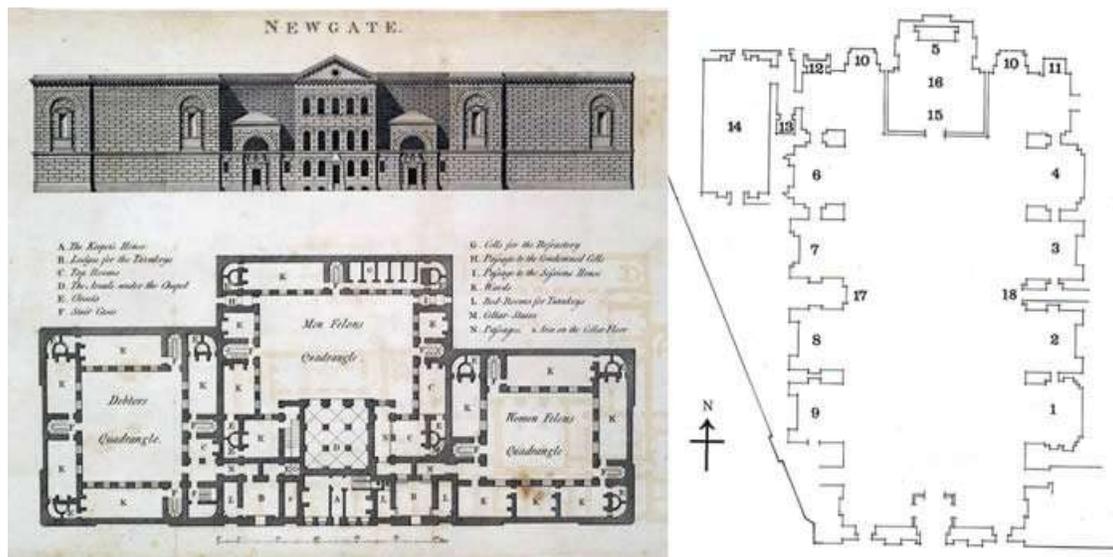


Fig 2. Architectural plans for New gate prison, London c.1800 (left) and church of st.Loch, Lisbon c.1578 (right). (Niyi, 2017).

Authorizing imprisonment as punishment in the general community. This introduction of imprisonment into law by Boniface VIII replaced brutal punishments such as executions and amputations, which had been practiced since the reign of Emperor Draco in 400 BCE (Morris & Rothman, 1998.), but it also likely had an effect on the development of prison architecture. Similarities between architectural plans of New Gate Prison, London (1800, shown above) and the Church of St. Roch, Lisbon (1578), with its cellular design typical of early prison architecture, support the idea that church and monastery buildings served as the template of early prison architecture.

Comparable to the architecture that characterized buildings from 1298 onwards, the earliest prisons were distinguished by thick walls, round arches, sturdy piers, groin vaults, large towers, decorative arcading and symmetrical plans. Externally, many of the early prisons resembled fortresses, and some—such as the Bastille prison in Paris—were in fact converted fortresses. Internally, however, the cells were built to resemble the “house of penitents” found in certain monasteries—bare rooms with a solitary window and a door that enabled inmates to be seen by their jailers.

The Chinese were known to utilize some form of incarceration as a means of punishment. The earliest Chinese prison dates back to 2000 BC. The Greeks also utilized imprisonment, beginning around 1100 BC. Greek prisons were used solely for those persons convicted of high treason or debt to the

government. The Roman Empire did not recognize imprisonment as a form of punishment, but still practiced confining persons charged with a crime prior to sentencing. Ancient prison structures were crude at best, and very few examples remain standing today. The Mamertine prison of Rome is one example of an ancient prison. It was constructed at some point during the third and first centuries BC and is located near the Forum. The holding cells are located on two levels. The lower level is believed to have housed those sentenced for life and can only be accessed through a trap door through the upper chamber, which held less serious offenders.

History of Nigeria prisons

Contrary to the assumption of many, the Prisons System has been around long before the amalgamation of 1914. From mere detention Centers to Native Authority prisons and to the current Federal system we have today, the Prisons in Nigeria have come a long way. The origin of modern Prisons Service in Nigeria is 1861. That was the year when conceptually, Western-type prison was established in Nigeria. The declaration of Lagos as a colony in 1861 marked the beginning of the institution of formal machinery of governance. At this stage the preoccupation of the colonial government was to protect legitimate trade, guarantee the profit of British merchants as well as guarantee the activities of the missionaries (Oluwakuyide, 2011).

The prisons in Nigeria are run solely by the federal government. This means that Nigerian prisons are governed by federal laws. In pursuance of the powers conferred on the position of the Controller-General of Prisons by Section 16 (1) (a) and (b), Cap. P.29 LFN 2004, the Nigerian Prisons Standing Order is brought into law. The Nigerian prison laws otherwise known as Nigerian Prisons Standing Order are divided into the following parts:

- Staff;
- Administration of Prison; and
- Organization and Control.

The Prison regulation was published in 1917 to prescribe admission, custody, treatment and classification procedures as well as staffing, dieting and clothing regimes for the prisons. These processes were limited in one very general sense. They were not geared towards any particular type of treatment of inmates. Instead they represent just policies of containment of those who were already in prison. Besides, they were limited in application to those who were convicted or remanded in custody by criminal courts of the British-inspired supreme or

provincial types. It was not until 1934 that any meaningful attempt was made to introduce relative modernization into the Prison Service.

There have been massive transformations in the Service since 1972. It has undergone some reorganization from its modest three Directorates in 1980 to six Directorates in 1993. There was the 1986 reorganization of the Prisons consequent upon the creation of the Customs, Immigrations and Prisons Board and centralization of the administrations of these paramilitary Services in the Board. There was also the removal of the Services from the Civil Service in 1992. It now has a command structure that boast of 8 Zonal commands, 36 State Commands, 1 FCT Command, 144 Prisons including farm centers and 83 Satellite Prisons. It also has 5 Training Schools, one Staff College and 3 Borstal Institutions. The big question is whether or not the Nigerian Prison system has lived up to its billings as a reformatory and correctional Institution and its attendant issues, recidivism, challenges, threats if any, in line with her objectives.

PURPOSE OF PRISONS.

The Nigerian prison institution, among others in Nigerian justice system perform three basic functions of; Keeping safe custody of convicted persons and suspect as well as execute sentence passed on individuals by the courts, ensuring the reformation and rehabilitation of inmates through moral training, education and offering them opportunities to develop other potentials and skills for effective reintegration into the society on discharge and ensuring the welfare of inmates through the provision of good health care, feeding, clothing and recreational facilities in order to create the enabling environment for reformation and rehabilitation programs (Eva, 2015). The Nigerian prison service was established not just to reduce crime in the society, but also to reform criminals to better persons (Jack, 2006). The purpose of Nigerian prisons can be broadly categorized as punishment, deterrence, isolation, reformation and reintegration. Though the change of name means that the government has become more concerned with rehabilitation of the offender, most prison still act as agent of punishment on behalf of the society. The idea behind isolation of the criminals is to prevent bad influence on law abiding citizens and to protect them from potential dangers to their lives and property.

Reformation has received a major emphasis in the recent years with advances in penology. The concept of reformation begins with the fact that deviant human behavior has specific physical, moral, mental, social, vocational or academic

causes. Therefore, if the cause for errant behavior can be ascertained, the offender can be treated by suitable psychological therapy and counseling.

Reintegration of the offender is only more practical and realistic extension of the reformation philosophy. Like the reformatory model, it views the offenders as needing help and at the same time realizes that errant behavior is often a result of disjunction between the offender and society. Reintegration thus attempts to bring the offender close to the society by exposing him to the positive elements of a free environment.

In the past, the prison architect was limited by relatively simple criteria, within which he or she has wide discretion to select the specific architectural solution to a general demand that undesirable offenders be segregated from other members of the society. Today, the task placed on prison architecture has been made much more specific. The architect has to design suitable structures for the function of integrating treatment offered in the outside community areas such as housing, recreational facilities, clinics, educational facilities, which brings about the much needed reformation and prevent overcrowding. The design must cater for offenders subjected to limited temporary control and must also cater for categories of offenders who have to be kept under constant control so as to avoid their escape or unwanted contact with the member of the community.

Architecture can thus effect the development, efficiency and usefulness of community prison interaction. On the surface, at least, the prison architect is faced with contradictory demands, that of physical control, and creating opportunities for community interaction.

Prisons are expensive buildings, security consideration make them so. It is worthwhile to make imaginative efforts to ensure that capital cost and recurring expenditure required for construction and operation of prisons be utilized for objectives rather than merely detaining inmates. There has to be a scope for education, training and opportunities for physical and mental growth of inmates leading to their reformation and integration within society as productive and responsible citizens.

Prisons have complex structure and must be designed after taking into account several factors, such as:

1. Secure accommodation.
2. Segregation of various categories of inmates.
3. Sanitation and hygiene.
4. Daily routines of inmates that has to do with their regimented lifestyle.
5. Opportunity for exercise and physical activity.
6. Medical services.

7. Education and religion.
8. Social behaviors and factors affecting it.

Architects need to become aware of problems associated with correctional facilities. With a better understanding of inmates, staff and user's needs, they can develop a model prison that runs efficiently and for the welfare of the users. However, in spite of all correctional facility reforms, one major factor which has hindered smooth functioning has been overcrowding. An increasing inmate population coupled with declines in correctional spending, has resulted in prison overcrowding which often exceeds the facility's maximum capacity. Prison overcrowding has shown to have many negative effects on inmates.

Research has demonstrated that overcrowding in prison creates competition for limited resources, aggression, high rates of illness and suicide. There are however, various methods to reduce prison overcrowding. Among the more influential are prison design and reducing prison population by developing community based alternative to incarceration.

DEFINITIONS: PRISON, OVERCROWDING.

Prisons are often referred to as correctional and/reformatory center. They are places/ facilities where offenders are kept for either punishment or as they await trial at the courts of law. Prisons are public institutions established by government for the rehabilitation and reformation of individual's offenders who are at breach of the law. A prison is a complex building in terms of functionality, it's a public icon where persons are physically confined and are denied their individual freedom as a means of punishment for a crime or as they wait to stand trial. The legal information institute defines prison, as an institution under federal or state jurisdiction, whose primary use is for confinement of individuals convicted of serious crimes, usually in excess of one year in length or a felony. Obioha, (2011) opines that a prison is a physical structure in a geographical location where a number of people live under a highly specialized condition, utilize the resources and adjust to the alternatives presented to them by unique kind of social environment that is different from the larger society in so many ways. Reasons & Caplan, (1975.) Opines that prisons and their many variant are built environment, whose intended purpose is punishment, deterrence, rehabilitation and incapacitation. Goffman, (1995), said that a prison is a typical example of a total institution, a place of habitation where individuals with like situation are, cut off from the society for a considerable period of time to live an enclosed formally administered life. Goffman also views prisons as an example of a total institution, defined as "a place of residence and work where a large number of like-situated individuals cut off from the wider society for an appreciable period of time together lead an enclosed formally administered

round of life” (Goffman E. , 1968.). From an architectural perspective, Goffman is describing the consequences of incapacitation, which implies the limitation of contact between prisoners and the general community to the barest minimum. Opera, (1998) defines prison as a place enclosed and acknowledged by the law of the state and it is created to certify restraint and custody of individuals charged or convicted of disobeying the criminal laws of the state. Awofeso, (2009) Further stated that prisons and their variants are built environments whose purposeful intention is punishment, retribution, rehabilitation and deterrence. The Federal Government of Nigeria (FGN: 1990) stated that the Nigeria prisons services was founded as an institution to correct social deviants, punish and reform criminals and to complement the processes of legal adjudication and law enforcement, more also the federal government see prison as a place delimited and declared as such by the law of the nation and created to ensure restraint and custody of individuals, accused or convicted of violating the criminal law of Nigeria. Prison is viewed as a physical structure within a specific geographical location which affords a unique kind of social environment that is different from the larger society where people live according to specialized conditions. The difference between a jail and a prison; a jail is a transitional facility for those undergoing legal proceedings, those awaiting judgement on their trial. A prison on the other hand , is for those whose judicial fate have been decided; those who have been convicted (Davids, 2011) .Therefore, those whose trial are in progress and those whose trials have been decided should not ordinarily cohabit in the same facilities. However, in Nigeria, the same correctional facilities are used both as jail and prison in the country.

There is no categorization as those undergoing trial (called awaiting trial in local parlance), convicts and those already condemned to death are treated equally. They are all lumped together in various cells and stripped of their dignity. This is really because like all facilities in the country, the prisons amenities have been stretched beyond their original capacities. So, those undergoing trial are not treated any differently from those already convicted despite the fact that they might end up being left off the hook. Thus, the prisons are brimming with inmates as there are more inmates than the original capacity of the prisons. For instance, the total inmates in the prisons in Lagos State are by far more than the number the prisons are meant to accommodate. As of Tuesday 18th of October 2011, there were 5,370 inmates at the Badagry Prison, Kirikiri Maximum, Kirikiri Medium, Kirikiri Female and Ikoyi prisons instead of the 2,945 they were built to rehabilitate (Davids, 2011).

A further breakdown of the inmates in Lagos prisons by the Nigerian Tribune shows that 4,440 of all the total inmates are awaiting trial and are, therefore, not part of the plans of prison officials. The only thing that they get from the prison

officials is food. They are not trained or allowed to undergo any vocational work. Just 936 inmates had been convicted and are facing jail terms, with about 70 of them condemned to death.

Quite different from the physical conception, there are other schools of thought that are based on function, framework and label. From the functional perspective, a prison is perceived as a place to punish offenders, where criminals that are removed from the society are dumped to protect the society from further criminal activities of the offenders; and a place to rehabilitate, and teach offenders to be law abiding and productive after their release. Prisons are also perceived as a total institution, from the perspective of framework. (Okunola, 2006, Goffman, 2001, quoted in Davids, 2011).

Prison as an institution is a place unlike free environment or community, houses those who are socially rejected, insane or mentally retarded. It is also said to be an institution where there is a basic split between a large class of individuals who are restricted contact with outside world and stereotypical behavioral pattern where social mobility is restricted. Yet from the labeling point of view, the prison is a place for vagrants, who may pose actual danger to social life in the larger society, which pre-supposes that every person in the prison is a vagrant and irresponsible person (Ojo, 2007). However, in the past few decades, the conception about the Prisons seem to be changing at least in the minds of some people, especially with reference to the erroneous idea that people in the prisons are dregs of the society. This means that it is not only the guilty that are found in the prisons, only some prisoners actually committed offences they are alleged to have committed. This is true of the Nigerian situation where it has become “acceptable” to have most of the prison yards overflowing with awaiting trial inmate population (Nnamdi, 2015). Onyekachi, (2010.) ,records that Prison institutions in Nigeria among others in the criminal justice system perform the following basic functions of; keeping safe custody of convicted persons and suspects as well as execute sentences passed on individuals by the courts, ensuring the reformation and rehabilitation of inmates through moral training, education and offering them opportunities to develop other potentials and skills for effective reintegration into the society on discharge, ensuring the welfare of inmates through the provision of good health care, feeding, clothing and recreational facilities in order to create the enabling environment for reformation and rehabilitation programs.

The search for effective solutions to overcrowding has to be preceded by the search for causes of overcrowding and is dependent therefore on a definition of overcrowding. While at its essence, the size of a prison system is a function of how many people are admitted to prison and how long they remain there (Mauer, 2007.). The definition of overcrowding and the determination of a situation of overcrowding depend on a mix of normative and factual elements.

Normative links to the definition of overcrowding are provided by international and regional human rights instruments which prohibit cruel, inhuman and degrading treatment and punishment and guarantee human dignity. Besides, the Convention Against Torture and Other Cruel, Inhuman or Degrading Treatment or Punishment (1984), the International Covenant on Civil and Political Rights contains provisions that prohibit cruel, inhuman or degrading treatment and punishment (Art. 7) and provides for a mechanism of monitoring prison conditions for example through visits and reports of a Special Rapporteur. Regional human rights treaties reiterate international prohibitions of cruel, inhuman and degrading punishment as do national constitutions. Section 34 of the Nigerian Constitution ensures the dignity of human person and, therefore, no one should be subjected to torture or to inhuman or degrading treatment, nor be subjected to slavery or servitude, and no one shall be required to perform forced or compulsory labour, save any labour required in the consequence of the sentence or order of a court among other exceptions. Sometimes national constitutions explicitly mention a prisoners right to “adequate accommodation” (for example the South African Constitution Art. 35, 2e which places “adequate accommodation” in the context of “conditions of detention that are consistent with human dignity”). In exceptional cases some national prison law defines the minimum square meters per prisoner (for example Article 110 of the Polish Code of Execution of Criminal Sentences). Moreover, a number of UN and regional soft law instruments outline minimum standards as regards prison conditions (and prison accommodation) and serve as guidelines in judging infringements on the prohibition of cruel, inhuman or degrading punishment, among them the “Body of Principles for the Protection of All Persons under Any Form of Detention or Imprisonment”

The problem of defining overcrowding is due to the lack of an internationally consented set of criteria which could be used to construct an instrument that can be applied uniformly in measuring overcrowding. In the evaluation of prisons with regard to overcrowding courts have adopted a case by case approach which does not rely on a single indicator (like for example square meters available for an individual prisoner which is our area of concern), but consider a wide range of aspects in a process which after all weighs interests of the prison administration, security, economics and individual rights of the prisoner. Overcrowding, of course, then refers to a multi-dimensional assessment as the core of the overcrowding problem is located in the judgment whether proper prison regimes, related programs of rehabilitation, health care, safety of prison inmates as well as staff and public security, kitchen and sanitary facilities, as well as visiting programs and facilities for work and education and outdoor exercise may be operated and delivered according to established standards under certain conditions of occupancy. Decisions of the Kampala declaration

for prison conditions in Africa, which recommends that prisoners should have living conditions which are compatible with human dignity and also the decision of the European Court of Human Rights on the space which should be available refer to guidelines set by the European Committee for the Prevention of Torture and Inhuman or Degrading Treatment or Punishment. The CPT has stressed that a standard of 3 metre square per prisoner for single and shared cells, does not offer a satisfactory amount of living space. The international committee of Red Cross (ICRC) has recommended adopting a standard of at least 5.4 metre square per prisoner for single cell accommodation and 3.4 metre square per person for shared accommodation. It advised also that cells with less than 3 metre square should be taken out of service as prisoner accommodation (CPT Report., 2008). The Special Rapporteur has underlined that four square meters are in particularly not acceptable if (remand) prisoners are confined for most of the time within the cell and remain in remand prisons for extended periods of time (Manfred, 2006) 5.4 metres square per prisoner might serve as an approximate and desirable guideline for a detention cell, but establishing overcrowding from the perspective of an infringement of space will be dependent on more than just an observation of less than 5.4 square meters being available for one prisoner. Length of time spent in an overcrowded prison facility, possibilities to spend time outside the cell, participation at furlough programs, the delivery of rehabilitative services and medical treatment as well as security issues will be taken into account, too. Insofar, overcrowding will also be dependent on the normative and cultural framework within which overcrowding (in terms of infringements on basic rights) is assessed. The European Court of Human Rights, however, has made clear that falling under a certain amount of space will always raise an issue under the prohibition of torture and inhumane and degrading treatment or punishment. The finding that a prisoner was placed in a cell which left 0,9-1,9 m of space per inmate evidently results in inhumane conditions of confinement, in particular the necessity to sleep in turns, disturbance through general commotions and noise from a large number of inmates as well as the lack of “real privacy” and risks of catching diseases as well as the length of confinement under overcrowded conditions, while it was noted that a lack of intent to put prisoners into such conditions would not exclude a finding of violation of the prohibition of inhumane and degrading treatment or punishment (Art. 3 ECHR). The European Court on Human Rights in recent cases in fact has stressed that space itself could represent the central factor indicating an overcrowded situation which establishes an infringement on the prohibition of inhuman treatment/punishment. In most countries in Western Europe, where the tradition has been that each prisoner should be kept in a single cell, overcrowding generally means having two or three prisoners living in a cell that was originally

constructed to hold one person. However, single cell accommodation is not the rule in Nigeria and other regions. Therefore in these, overcrowding means three prisoners having to share one bed, sleeping in turns and using spaces which fall below the required standard. The size of living accommodation is, of course, only one element to be taken into account when considering whether a prison is overcrowded.

Apart from courts and human rights monitors, prison administrations have adopted procedures and standards which result in measures of prison capacity and with that also measures overcrowding. Curt & Danielle, (2009) Defines Overcrowding in prison as a state of affairs in which the number of inmates exceeds the capacity of the prison to the extent it cannot safely provide for the adequate physical and psychological of incarcerated prisoners. Such definitions refer basically to a number of prisoners actually imprisoned exceeding the number of prison cells/beds which has been set as the maximum to be held in a prison. With a “designated capacity” the number of prisoners is established through administrative decisions for which the prison can provide adequately for medical care, rehabilitative programs, education, personal safety of prisoners and staff (Curt & Danielle, 2009). Besides, designated capacity, design, rated and operational capacity concepts can be found. Design capacity refers to the number of inmates which in the planning process was intended, operational capacity evidently means the number of prisoners which can be accommodated without putting at risk basic objectives such as health, safety and security while rated capacity relies on assessments by designated officials in a jurisdiction (Baker, Lattimore, & White, 2002).

Definitions of overcrowding thus require first of all the establishment of a maximum number of prisoners which can be accommodated in a prison facility. The maximum number must be established on the basis of criteria consistent with human rights and minimum standards issued by the United Nations or regional bodies. Definitions of overcrowding, however, will differ among world regions and will be dependent partially on whether single cell accommodation is adopted as a rule or communal cells and on the general prison designs and culture (Giffard & Muntingh, 2006).

An overcrowded prison population is one in which the number of inmates exceeds the amount of available space, resources, and intended housing. Prison overcrowding can be described as two types: spatial density overcrowding and social density overcrowding. The John Howard Society is an organization devoted to understand the problems of crime and the criminal justice system. From the words of the John Howard Society, spatial density overcrowding is defined as the amount of space available for each person. Social density overcrowding is defined as the amount of people sharing one unit, resource, or privilege. Based on the two definitions, one can see that issues concerning

spatial density overcrowding can have disastrous effects on the rehabilitation of the inmates.

FUNDAMENTALS OF PRISON DESIGN.

The design and planning of prison facilities should take into account a few basic propositions:

1. Physical requirements for prisons involve more than cell dimensions.
2. A prison requires more space than the sum of areas required for each function.
3. Good security increases prisoner freedom.
4. Separation of categories.

Physical requirement for prisons involves more than cell dimension.

A prison should provide safe and secure conditions for prisoners and staff, and a decent quality of life. This depends on the provision of basic living conditions (light, water, sanitation, etc.) for an appropriate number of prisoners in a given physical living space, the necessary regulation and control of movement, and various facilities to provide an effective regime that supports the rehabilitation of prisoners. Some of these conditions are easily defined and have measurable parameters. However, a prison is neither safe, functional nor humane by providing sufficient space and essential services. Though cells may be large enough to accord with international expectations, prisoners must also be allowed to spend most of their waking hours outdoors or in day-rooms to every extent that this is possible and practicable. Likewise, prisons should have the physical infrastructure to promote a safe environment that supports the rehabilitation of prisoners, providing them with access to work, education, and programmes to help them address their offending behavior.

Physical requirement for prison involves more than cell dimension.

In planning for a prison, it is critical to understand the difference between net space and gross space. However, there are multiple approaches for calculating net to gross ratios, and planners should be aware of these choices and their implications. Some design briefs include areas for mechanical, electrical, and IT rooms, as well as for toilets and showers, while others do not. As a result, design briefs can vary considerably in their depiction of net area. It is important to clarify this aspect to ensure that the total area requirements are understood. In the diagram on the next page and throughout this document and the accompanying tool, net usable area (NUA) is all the floor area that can be used by people, for functions or equipment. It excludes space occupied by building structure, walls, corridors, staircases, and elevators. Gross floor indoor area (GFIA) includes all of the above and all internal walls, but not external walls.

All areas in this guidance document are net usable areas, unless otherwise indicated. The gross floor area (GFA) is the total amount of space that a building occupies, including external walls. For a prison in a warm climate, with mostly outdoor circulation (without corridors), the net to gross percentage may be around 30-40 percent. In a colder climate and for multi-storied buildings with indoor circulation, the relationship may be closer to 50-70 percent.

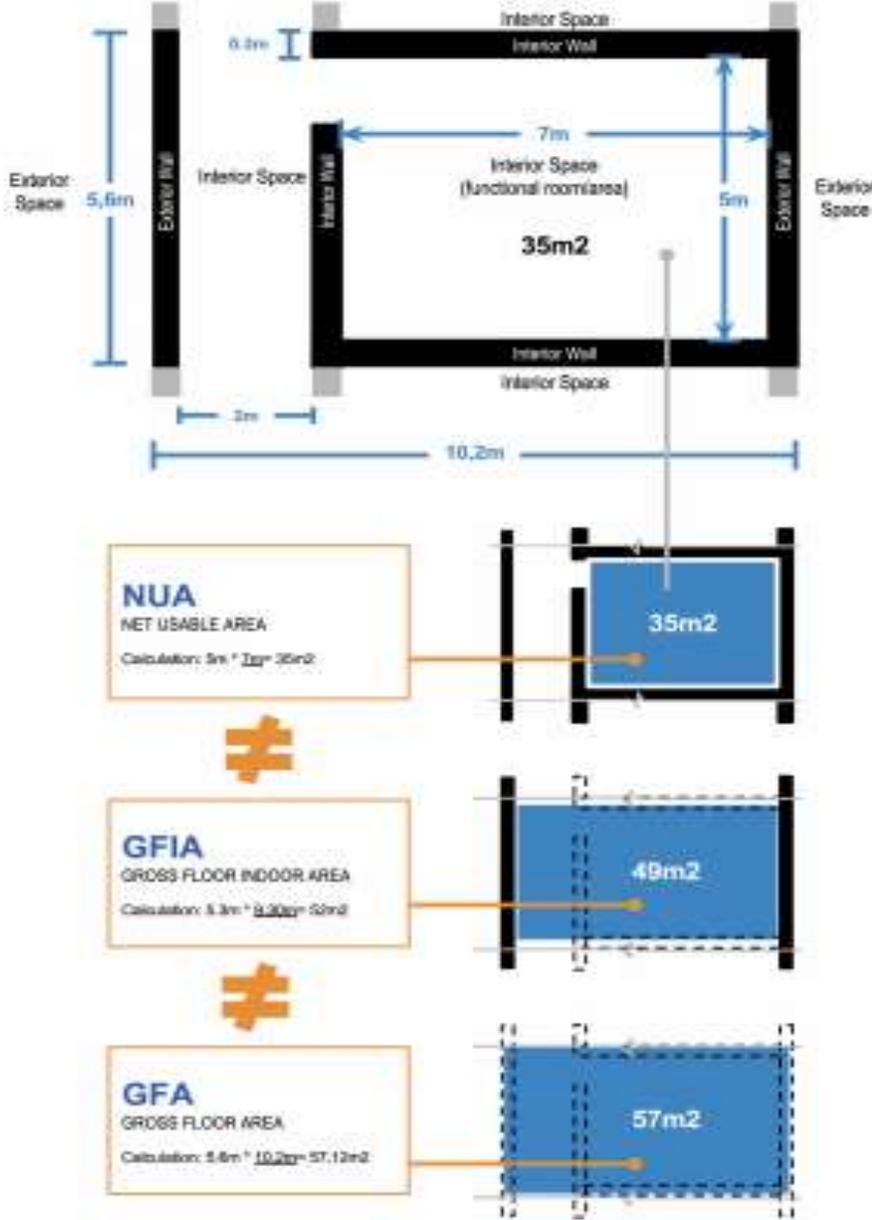


Fig 3: Net vs. Gross. (UNOPS, 2016.)

Good security increases prison freedom

A prison that is controlled, safe and secure can allow the prisoner population a greater degree of freedom. Given a secure cellblock yard, for example, prison staff can allow prisoners free access to the open space. However, if there are questions about their ability to secure control, prison staff is likely to prevent prisoners from moving outside their locked cells, thus reducing or eliminating the use of spaces intended to benefit prisoners. From a building design standpoint, prisons are partly process-oriented (like airports or factories) and partly space-oriented (like schools or offices). The active motion of prisoners (process) is tightly controlled, but prisoners ought to be free to move around within specific spaces. In the same vein as above, if prisoner movement between spaces is not well controlled, then prison staff will control prisoners within spaces. Creating a physical environment where prisoner movement is easily controlled can allow prison staff to let prisoners out of their cells during day hours to spend more time engaged in positive activities.

Separation of categories.

Rule 11 of the Mandela Rules is crucial to consider in the planning of prison infrastructure, essential to both the design of functional prison infrastructure and the provision of safe, decent, and humane conditions. It is worth quoting in its entirety:

The different categories of prisoners shall be kept in separate institutions taking account of their sex, age, criminal record, the legal reason for their detention and the necessities of their treatment. Thus,

- a. Men and women shall so far as possible be detained in separate institutions which receives both men and women the whole of the premises allocated to women shall be entirely separate;
- b. Untried prisoners shall be kept separate from convicted prisoners;
- c. Persons imprisoned for debt and other civil prisoners shall be kept separate from imprisoned by reason of a criminal offence.
- d. Young prisoners shall be kept separate from adults.

Ideally, before any new prison is planned and designed, a review of the country's current prison infrastructure would ascertain whether existing prisons can be better utilized to separate different prisoner groups, i.e. to create a women's prison as opposed to multiple mixed facilities. Where circumstances necessitate that multiple groups of prisoners be located within a single prison site, it will be necessary to ensure that the design of the prison can accommodate

a complete visual and auditory separation of prisoner groups. This is particularly important when it comes to separating men from women, adults from children in detention, and pre-trial prisoners from convicted prisoners. Without adequate consideration of the separation of categories, the safety of vulnerable prisoners will be at risk and staff will have a difficult task of managing the prison in accordance with its responsibilities under the Mandela Rules and other international norms. In the course of managing the physical separation of different prisoner categories, it is also imperative that the prison regime does not violate the principle of non-discrimination, which requires that each category of prisoner receive equal access to all available resources and services.

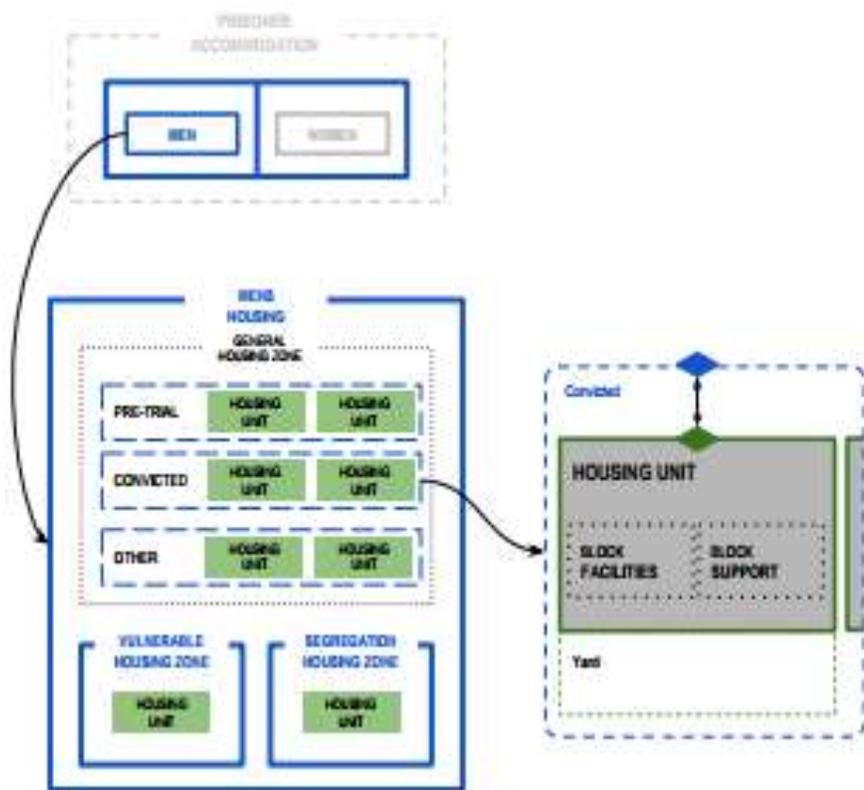


Fig 4: separation of categories. (UNOPS, 2016.)

TYOLOGY OF PRISONS.

The general layout of the prison ought to be considered as early as possible as the level of integration of the facilities will dictate whether certain spaces can be shared between prisoner groups, or if multiple spaces for the same function can be provided.

A) AN INTEGRATED PRISON

An integrated prison has the highest degree of integrated facilities, generally in a single building. In this system, the prison is completely integrated as one large operation and may be appropriate to house, for instance, a prison population consisting entirely of high risk males who are incarcerated for long-term sentences.

B) A CLUSTER SYSTEM.

A cluster system has a moderate degree of closely coupled facilities in multiple buildings. In this system, different prisoner categories may be housed separately but share access (at different times) to common facilities such as a central kitchen, workshops, a gym, etc. By the virtue of the size of its component parts, a cluster system may be easier to manage than a fully integrated prison holding many types of prisoner categories. In particular, it may be appropriate to house, for instance, a prison population consisting of all male prisoners falling under various categories.

C) A CAMPUS SYSTEM.

A campus system has the lowest degree of integrated facilities and functions as a series of discrete operations, generally over a large site. There will be even less shared facilities than in the cluster system, and the separation between the clusters will be more pronounced. Such a system is preferable for housing prisoner categories that must be kept strictly separate, such as a prison with men, women, and juvenile detainees and at lower security levels.

In addition to operational advantages, the choice of clustered and campus approaches may also present economic advantages. Instead of having to provide infrastructure services to multiple prisons, a well-planned clustered system can reduce the costs by co-locating operations at a single location. In such a case, however, great care must be taken to ensure the full and complete separation of prisoner categories, particularly that of women from men, and any juvenile detainees from adults.

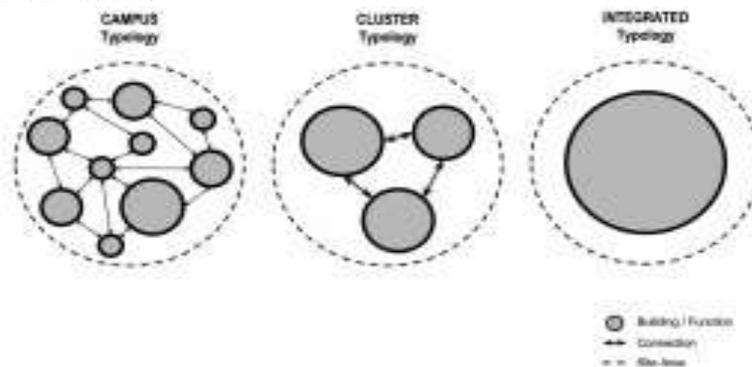


Fig 5: Typical prison Layout. (UNOPS, 2016.)

COMPONENTS.

a) Single and shared Cells:

Cells are rooms that are typically designed to sleep one or two prisoners. For the protection of prisoners, the Mandela Rules declare that it is not desirable to have two prisoners in one cell. However, in many countries, double cells are considered acceptable if the two prisoners get along. In light of the above, the advised number of prisoners per cell will vary depending on the social, cultural, and operational context. Another consideration is the nature and severity of crimes committed and the physical security of the prisoner (in the case of child offenders, for example, or members of particular ideologies). In overcrowded prisons, however, cells will often house more prisoners than their design accommodates. In all cases, it is important that potential cellmates are assessed for compatibility to ensure that no prisoner is placed at risk in the arrangement. A cell is required to have 5.4m² of floor space for one person, and the space between walls may not be less than 2.15m. For two people, there must be at least 6.8m² of floor space, if single beds are used. No prisoner accommodation room may be less than 5.4m². Wherever possible, toilets should be provided within a cell to prevent the need for soil/sanitary buckets. If no toilets are provided, soil/sanitary buckets must be provided with nearby facilities that allow the safe and hygienic disposal of waste.

Specification:

Floor area (net):	At least 5.4m ² , for single cell accommodation (ICRC, 2013) At least 3.4m ² per person, for shared accommodation.
Distance b/w walls:	At least 2.15m (ICRC, 2013)
Height of the room:	At least 2.45m, but more may be needed in warmer Climates (ICRC, 2013)
Ventilation area:	At least 4% of the net floor area (ICC, 2018) Where infeasible, must be greater than .1m ² /person.
Day lighting area:	Total clear glazed window area, at least 8% of the net Floor area. (ICC, 2018) Where infeasible, must be greater than .1m ² /person.

b) Dormitories.

Dormitories are spaces that house groups of prisoners. Bunk beds are often used to maximize the floor space available for prisoner use. Allowing 1.6m² per bed, a four person dormitory with single beds may measure 13.6m² (3.4m² x 4), while a four person dormitory with double bunk beds will provide an equal amount of open space at 10.4m² [(3.4m² x 4) – (1.6m² x 2)].

The size of the dormitories will largely depend upon the number of prisoners to be housed within them, and the level of risk those prisoners pose to the good order and discipline of the prison. Dormitories housing between four and 25 prisoners are easier to manage and control than larger ones. A dormitory for a larger number of prisoners may pose a significant control problem in the case of a disturbance. Similarly, in the case of a contagion, larger dormitories can make it difficult to prevent the spread of disease among the prisoner population.

Practically speaking, and in acknowledgment that large dormitories are often severely overcrowded, it may be desirable to design the dormitory for a capacity of maximum 25 prisoners. One toilet can serve 25 people, but it is good practice to supply more than one toilet for any dormitory with more than a few prisoners, given maintenance and decency considerations. (Additional toilet facilities outside the dormitory can augment the capacity for daytime use, if the occupants are allowed to move freely through the cellblock.) A room with 12 bunk beds in two rows of six, for 24 beds total, will have sufficient natural ventilation if two sets of windows are provided. Ceiling or extractor fans can be used to provide additional airflow.

Specifications:

Floor area (net): (ICRC, 2013) 3.4m² per person for dormitories containing single beds; 2.6m² per person for dormitories containing double bunk beds; and 2.3m² per person for dormitories containing triple bunk beds.

Height of the room: At least 2.45m, but more may be needed in warmer climates or if triple bunks are used (ICRC, 2013)

Distance b/w walls: At least 2.15m (ICRC, 2013)

Min. vertical space between beds: 1.2m (ICRC, 2013)

Height of the room: At least 2.45m, but more may be needed in warmer climates (ICRC, 2013)

Ventilation area: At least 4% of the net floor area (ICC, 2018) Where infeasible, must be greater than .1m² /person.

Day lighting area: Total clear glazed window area, at least 8% of the net Floor area. (ICC, 2018) Where infeasible, must be greater than .1m²/person

PROBLEM STATEMENT

Nigerian prisons are characterized by overcrowding, poor ventilation associated with poor design because most prison structures are either makeshift or not purpose built. A report of a 12- man presidential committee on prison decongestion in 2010 revealed that 29,372 inmates out of 41,524 inmates are awaiting trial. Presently, awaiting trial male or female accounts for about 45,712

inmates of out of 68,259. Many cells meant to accommodate about 50 inmates were found to accommodate about 150 inmates; all cramped together. As of Tuesday 18th of October 2011, there were 5,370 inmates at the Badagry Prison, Kirikiri Maximum, Kirikiri Medium, Kirikiri Female and Ikoyi prisons instead of the 2,945 they were built to rehabilitate (Davids, 2011). The Kirikiri Maximum Security Prison in Lagos is overcrowded by 250 percent. The prison, which was built for 956 inmates, is today occupied by over 2,600 inmates of which majority of the inmates are awaiting trial. According to the National Assembly Legislative Digest overcrowded prisons inexorably lead to inmates being exposed to improper health conditions that result in the spread of epidemics likely to cause death such as tuberculosis, HIV/AIDS and diabetes. In most cases the appalling condition gives rise to dehumanization which defeats the aim of correction. This paper aims to suggest architectural ways to solve the problem of overcrowding which will bring about the much needed correction.

CATEGORIES	AT,MALE \$ FEMALE	CONVICTED/ MALE/FEMALE	CONDEMNED/ MALE/FEMALE	LIFE/MALE/ FEMALE.	TOTAL
MALE	45712	18677	1960	584	66933
FEMALE	984	327	7	8	1326
TOTAL	46696	19004	1967	592	68259.

Table 1: Table showing number of male and female inmates, convicted inmates, condemned inmates and inmates serving life sentence. (Tinuoye, 2007)

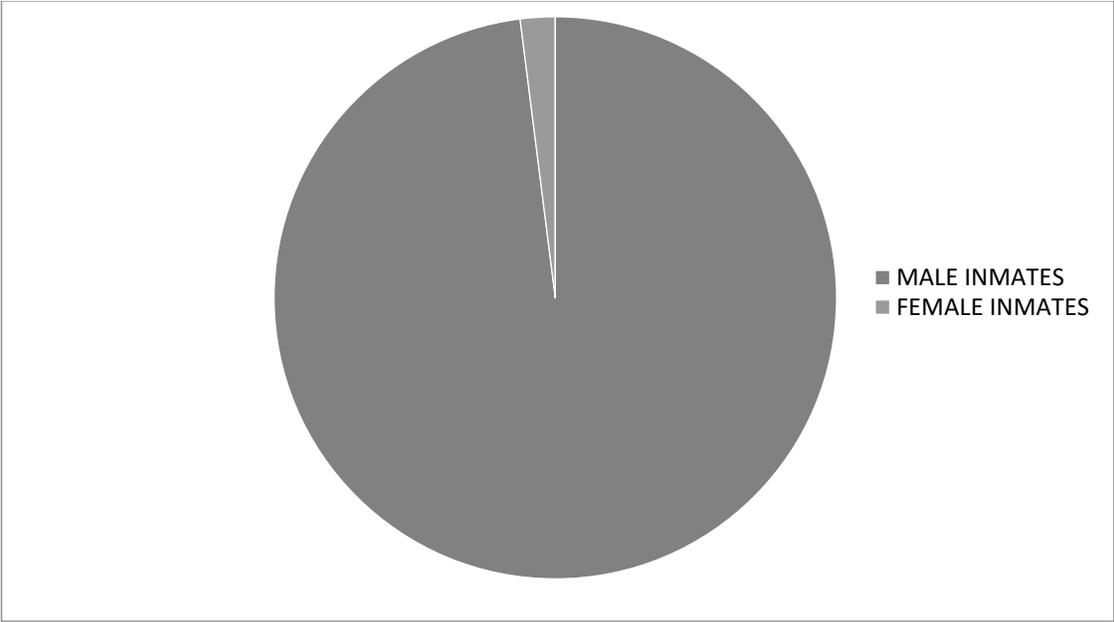


Fig 6: Showing the percentage of male (98%) and female (2%) (Tinuoye, 2007) inmates.

TYPES OF PRISONS IN NIGERIA.

There are 128 prisons in Nigeria. Their official capacity is about 50,000 people. Still, in reality, all kinds of prisons are currently populated by more than 60,000 people. Most of the prisoners are males (more than 60,000) and only two percent are females (above 1,300).

Different kinds of prisons exist to group criminals by gender, age and how dangerous the offenders are to others. It is true that all the jails are created for the freedom-limit purpose and still there are several major types of prison in Nigeria described below. These are the different types of prison in Nigeria Prison:

- Juveniles/Minor correctional facilities
- Female-only prisons
- Security prisons
- Psychiatric prisons
- Military prisons.

a) Juvenile prisons:

In Nigeria, just like in most other countries in the world, those offenders who are minors or still under the age of 18 years old are called juveniles. They among all the over 60,000 prisoners, Nigeria accounts for less than 2 percent of young people and children who are imprisoned. The juveniles cannot go to the same jail as adult women and men; thus, they are supposed to be sent to a juvenile correctional facility located in their home city. However, not all juveniles are treated as supposed by law. Once in a while, we hear reports about kids being locked up in adult prisons along with adult criminals. Such situations were noticed in Nasarawa State and other corners of the country.

b) Female-only prisons:

The prison system in Nigeria is unique in its own way. For example, our country boasts two female-only prisons where only women are sent to. One prison for women is located in Lagos State (Apapa) and is called the Kirikiri Prison, the other is located in Adamawa and is known as the Numan Old Prison. Women who have turned 18 years old are usually sent to one of these prisons. They can spend months and even years in the correctional facilities awaiting their trial. Often, there are more people imprisoned than

the capacity allows, and this can lead to overcrowding and possible spread of illnesses and other problems.

c) Security prisons:

The main types of prison in Nigeria are security prisons. They are divided into three sub-categories:

- Minimum security
- Medium security
- Maximum security

1) Minimum security prison: Minimum security prisons are designed to house low –risk, first- time offenders convicted of non-violent crimes. Minimum security prisons sometimes function as transitional housing for prisoners from maximum or medium security prisons who will soon be paroled.

Housing in minimum security facilities is often dormitory- like and the grounds and building of a minimum security facility resembles a university campus. Inmates assigned to such facilities are trusted to comply with prison rules. All minimum security prisons are meant for less serious crimes such as fraud, theft and various ‘bad things’ that are not violent to the society.

2) Medium security prison: These facilities are a catch hall, because both extremely violent and nonviolent offenders are placed in common living areas. Inmates in medium security facilities typically occupy cell that accommodate more than more one prisoner. In medium security facilities, freedom of movement, privileges (such as participation in sporting activities), and access to various educational, vocational, or therapeutic programs are greatly restricted. Prison official limit visitation and carefully monitor communication between inmates and visitors.

The visiting parties face one another through glass partitions and speak on a telephone. Although, medium security sometimes offer inmates opportunity for work release, furloughs, and other types of transitional programs, only a small percentages are allowed to participate in these programs. The medium security kinds of prisons are meant for criminals who need to be locked away from society because they are dangerous. This can include armed groups, housing crimes, etc. The example of such prisons is Kuje Medium Prison, Kirikiri Medium Security Prison, etc.

3) Maximum security prisons: people sentenced to serve time in maximum security facilities are usually the most dangerous, high-risk offenders, maximum- security prisons have many stringent rules and restrictions. Inmates are isolated from one another in solitary cells for long periods.

Maximum- security facilities have few amenities, and the cells are sparsely furnished. Closed- circuit video cameras enable correctional officers to observe prisoners in their cells or in work areas. Many maximum security institutions confine prisoners to their cells for 23 hours a day, allowing them out for only short period to shower and exercise. Some examples of such places are Gashua Maximum Prison, Kirikiri Maximum Security Prison.

4) Super max security prisons: These facilities are called “ control units” these prisons have extraordinarily severe restriction. Human contact is minimal. Inmates are kept in solitary confinement in small (typically six feet by eight feet) cells for long periods each day. They eat alone in their cells. No opportunities for work or socialization exist. Outdoor recreation is permitted only once a week. Restraints such as leg irons are used whenever inmates leave their cell.

d) Prisons for mentally unfit people:

The world classifies psychiatric prisons as one of the types, however, in Nigeria; this particular option is not well developed. Those law-breakers who are not mentally fit among the society are usually sent to security prisons where sometimes they can get mental healthcare and help they need. Still, this is currently a major problem in our country.

e) Military prisons:

The prison system in Nigeria has special military detention facilities for people who serve or have served in the Nigerian Army and committed military crimes, violated human rights, etc. military prisons in our country are overcrowded. An example of such prison is the Giwa Barracks Detention Facility that is located in Borno State (Maiduguri).

Facilities in prisons:

Male and female prisoners are typically kept in separate location or separate prisons altogether. Prison accommodation especially modern prisons in developed world, are often divided into wings. A building holding more than one wing is known as a ‘hall’ (Buikema, 2005).

Amongst facilities that prisons may have are ;

1. A main entrance, which may be known as ‘gate lodge’ or ‘sally port’.
2. A chapel, mosque or other religious facility, which will often house chaplaincy offices and facilities for counseling individuals or groups.
3. An educational facility, often including a library, providing adult education and continuing education opportunities.
4. A gym exercise yard or recreational area, an open air area which is usually fenced which prisoners may use for recreational and exercise purposes.
5. A healthy facility or hospital.
6. A segregation unit (also called a ‘block’ or ‘isolation cell’) used to separate unruly, dangerous or vulnerable prisoners from the general population, it can also be used as punishment.
7. A section of vulnerable prisoners(VP) ,or protective custody (PC) units, used to accommodate prisoners classified as vulnerable, such as sex offenders ,former police officers, informants and those that have gotten into debt or trouble with other prisoners.
8. A section of safe cells, used to keep prisoners under constant visual observation for example when they are at risk of suicide.
9. A visiting area ,where prisoners may be allowed restricted contact with relatives, friends, lawyers and various individuals.
10. A death row in some prisons, a section for criminals awaiting execution.
11. A staff accommodation area, where staff and guards live in prison as seen in some historic prisons.
12. A service facility area housing ancillary facilities like kitchen.
13. Industrial or agricultural plants operated with convict labour.
14. A recreational area- a dayroom containing a television and reading materials.
15. The intake- release area of a prison often referred to as booking, admission or receiving. This is an active vital space, it performs three key roles :
 - i. Conducting all intake activities involved in initial receiving of inmates from courts or other facilities.
 - ii. Conducting all intake activities involved in admitting inmates into residency in a housing unit.
 - iii. Conducting all activities involved in releasing inmates from either the receiving area or housing unit.

Prisons are normally surrounded by fencing, walls, and earthworks. Geographical features or other barriers to prevent escape. Multiple barriers,

concertina wires, electrified fencing, secured and defensible main gate, armed guard towers, lighting, motion sensors, dogs and revolving patrols may also be present depending on the level of security. It also include remote controlled doors, CCTV monitoring, alarms, cages, restraints, non -lethal and lethal weapons, riot control gear and physical segregation of units and prisoners may all be present within a prison to monitor and control the movement and activity of prisoners within the facility.

Modern prison designs, particularly those of high security prison, have sought to increasingly restrict and control the movement of prisoners throughout the facility while minimizing the correction's staffing needs to monitor and control the population. As compared to traditional landing cell blocks hall designs, many newer prisons are design in decentralized "modular" layout with individual self- contained housing units known as "pods" or modules, arranged around centralized outdoor yards in a campus.

The pods contain tiers of cell laid out in an open pattern arranged in a central control station from which a single correction officer can monitor all the cells and entire pod. Control of cell doors, communication and CCTV monitoring is conducted from the control station as well. Movement out the pod to the exercise yard or work assignment can be restricted to individual pods at designated times, or else inmates may be kept always within the pod or even their individual cells depending upon the level of security. Meals, laundry, cafeteria, educational materials, religious services and medical care can be brought to individual pods or cells.

Lower security prisons are often designed with less restrictive features, confining inmates at night in smaller locked dormitories or even cottage or cabin like housing while permitting them free movements around the grounds to work and engage in other activities during the day.

General Causes of Overcrowding in Nigeria prisons:

There are many causes for the increased population in prisons. On a whole, the incarceration rate across the nation has had a continuous and steady growth starting in the 1980's The increase in the prison population can be attributed to many factors, increase in the number of inmates awaiting trial, increase in the number of stealing, robbery and assault, which are the top three offences in Nigeria, and also the failure of the correctional system to rehabilitate those already incarcerated (Ayade, 2010). These factors can be sub summed into: the police, the court or justice system and the criminal law or legislation.

A) The Police.

The Nigerian police force is empowered to arrest and detain persons suspected to have committed criminal offences. Under these powers the police force arrest and detain without prior investigation in most cases. The suspect are remanded in prison custody to enable the prosecution investigate the matter as oppose to the precautionary measure to ensure accused person come to take his/her trial in court as provided in section 35(4)(a-b) of the constitution. The police force most times, often delay in duplicating case files and sent to ministry of justice for legal opinion, more worrisome is the issue of missing case files, prosecutors come to court without witnesses or that investigating police officers(IPOs) are on transfer or no longer in the services of the police force. Cases of murder require autopsy report, forgery require handwriting expert and in Indian hemp matters all exhibits necessarily has to be taken to the only one government chemist in Kaduna and specimen in cases of murder or manslaughter has to be sent to Lagos the only government pathologist laboratory, for forensic analysis. Consequently, accused persons remain in custody for an average period of two to five years for the report to be received before the criminal prosecution will commence. It will take another five months of compilation of criminal diary with incompetent typist and shortages of computers.

b) Delay in the dispensation of justice.

More than 65% of the total numbers of the inmates are awaiting trial persons. (Ayade, 2010). The administration of justice is directly responsible, inadequacy of courts and supporting staff coupled with lack of equipment causes overcrowding. The influx of people into cosmopolitan cities is no match with increase of court buildings. Most courts in Nigeria have no computers; those with computers have no competent staff to operate them. Information technology is completely non-existent. Court dockets are scattered, courts and case list are hand written without case flow management. No tracking of cases leading to backlog of cases.

Some magistrate and judges are lazy and incompetent, no refresher courses and on the job training, while some are not committed and adjourned cases on flimsy excuses coupled with legal practitioners who come ill- prepared only to apply for an adjournment. Another dimension to this problem is over-reliance on pre-trial detention by courts, especially magistrates over-indulge in remand others, accused must be

sent to prison at all cost on every trivial and minor offence on difficult bail conditions. It is difficult to compile criminal appeals as most take down evidence in long hands “illegibly spread all over the record note book” The indifference of the court secretarial staff whose duty is to compile records of proceeding does not help matters. Magistrate and judges are frequently transferred to different jurisdiction, cases affected in this process are to start DE novo by the new judge. However, the chief judges of a state and the federation who are empowered to conduct jail or goal delivery hardly release inmates who have overstayed without trial, juveniles in prisons and over-aged prisoners. Prisons in urban centres continues to be overcrowded without any effort to transfer inmates to some other prisons with enough space or for appropriate treatment. From the table above, in the north-east, convicts outnumber awaiting trial persons because courts always lengthy sentences without option of fine or other forms of restorative justice system. The table analysis in south-south and south-east/west with more awaiting trial persons is indicative of courts granting bail on onerous terms. Moreover most accused persons are poor unable to fulfill their bail conditions and usually remain in prison even more than the period, if convicted and sentenced. The lack of legal assistance to indigent persons; delay by the ministry of justice in giving legal opinion and shortage of staff in legal aid council in Nigeria to adequately render legal assistance to the poor pro bono since they cannot afford services of private legal practitioners is one reason responsible for congestion in prisons in Nigeria.

c) **Criminalization of moral behavior.**

The Nigerian prison service which is to provide treatment, rehabilitation and re-socialize in-mates back to the society is however not feasible as this philosophy is in theory not in practice. The characteristics of the prison population are indicative of imprisonment for purpose of punishment rather than ideal social function prison. About one fourth of the population are interned for the offence of stealing without causing harm, 50% of which are sentenced for offences for period less than two years, there are juveniles, over aged, civil lunatic, children, nursing and pregnant mothers in Nigerian prisons, which buttresses this position. But never the less, there has been increase in criminal activities, drug trafficking, kidnapping, child trafficking as a result of deteriorating economic situation, which has contributed to overcrowding. Moreover, the spate of criminal activities has led to over criminalization of certain

behaviors, such as arson of public buildings, damage to public properties, electric cables, oil pipelines, tempering with telephone wires, forgery and false pretence, cyber-crime, counterfeiting, stealing, fighting selling in the street (hawking), prostitution, wandering, disrespect to parents, aiding and abating and conspiracy to commit any of the mentioned offences, There is no gain saying that, criminalizing offences such as vendor selling on the street crossing the road, improper dressing, wandering, in which the police arrest and remand has tremendously contributed to prison upsurge.

d) Poor administration of prisons in Nigeria.

Recall that one of the most fundamental social functions of prisons is to treat and rehabilitate prisoners. It is also important to realize that persons sent to prison would ultimately return back to the society. The Nigerian prison lacks the requisite competent personnel to fulfill this function and so they have failed woefully in this responsibility. The criminal justice system has no commitment to develop and sustain programmes which will assist offenders re-enter the community and live a worthwhile, self-reliance life free from crime. There’s no effective after-care programme as the society is hostile to released prisoners and this stigmatization has led to re-offending and re-arrest.

Nigerian Prison Infrastructure.

Majority of Nigerian prisons were built by the “colonial administration” and “ native authority” predating the era Nigeria gain independence in 1960 (National prison audit).The conditions of these prisons are alarming rate of dilapidation is worrisome, with no sense of maintenance or renovation which is reflective of long neglect by the Nigerian government. In fact, most of these prisons constructed at this period were not purpose built, in bad shape and at the brink of collapse. Moreover, few prisons have been constructed without detailed designs, substandard materials which are a far cry from modern and state of the art prisons. Examples of such new prisons include, funtua built in 2003, Gusau medium security prison (1993) kebbi new Prisons (1991) Oyo and Eket prisons(2007).Below are some of the prisons and there year of construction.

s/no.	Prisons/State.	Year of construction.	Built by which Authority
1.	Abia state.		
	Umuahia	1913.	Colonial Government.
	Aba Prison	1911.	Colonial Government.

	Arochukwu	1901.	Colonial Government.
2.	Adamawa State.		
	Ganye.	1960.	Native authority.
	Jada.	1930.	Native Authority.
	Jimeta	1938.	Native Authority.
	Numan.	1953.	Native Authority.
	Micheka.	1932.	Native Authority.
	Yola.	1914.	Native Authority.

s/no.	Prison/state	Year of construction.	Built by which Authority.
3.	Akwa ibom state.		
	Abak.	1926.	Colonial Government.
	Eket.	1902.	Colonial Government.
	Ikot Ekpene.	1955.	Colonial Government.
	Uyo	1956.	Colonial Government.
4	Anambra state		
	Onitsha.	1915.	Colonial Government.
	Awka.	1904.	Colonial Government.
	Ibite-Olo	1976.	Federal Government.
5.	Bauchi state.		
	Azare.	1916.	Native Authority.
	Bauchi	1820.	Native Authority.
	Medium security prison,Jama'are.	1996.	Federal Government of Nigeria.
	Ningi	1827.	Native Authority.
	Misua	1831.	Native Authority.
6.	Benue		
	Gboko Prison.	1932.	NA
	Makurdi.	2001.	Federal Government.
	Otukpo.	1929.	NA

s/no.	Prison/state	Year of construction.	Built by which Authority.
7.	Borno State.		
	Bama	1942.	Native Authority.
	Biu.	1912.	N.A

	Gwoza.	1946.	N.A
	Maiduguri farm.	1976.	Federal Government of Nigeria.
	Maiduguri New.	1952.	N.A
	Maiduguri.	1992.	Federal Government of Nigeria.
8	Cross River state.		
	Ikom.	1926.	Colonial Government.
	Obubra.	1928.	Colonial Government.
	Ogoja.	1928.	Colonial Government.
	Obudu.	1941.	Colonial Government.
	Calabar.	1918.	Colonial Government.
9.	Delta State.		
	Agbor.	1909.	Colonial Government.
	Ogwashiuku.	2007.	Federal Government of Nigeria.
	Kwale.	1920.	Colonial Government.
	Sapele.	1909.	Colonial Government.
	Warri.	1880.	Colonial Government.
s/no.	Prison/state	Year	of Built by which Authority.
			construction.
10.	Ebonyi state.		
	Abakaliki.	1946.	Colonial Government.
	Afikpo.	1911.	Colonial Government.
11.	Edo State.		
	Auchi	1922.	Colonial Government.
	Benin City.	1908.	Colonial Government.
	Oko medium.	1988.	Federal Government.
	Ubiaja	1920.	Colonial Government.
12.	EKiti state.		
	Ado-ekiti	1929.	Colonial government.
13.	Enugu state.		
	Enugu prison.	1924.	Colonial Government.
	Orji River.	1992.	Federal Government of Nigeria.
14.	FCT, Abuja.		
	Kuje.	1944.	Colonial Government.
	Suleja.	1989.	Federal government of Nigeria.
15.	Gombe state.		

Bajoga	2000	Federal Government of Nigeria.
--------	------	--------------------------------

S/no.	Prison/ State.	Year of Construction.	of Built by which Authority.
	Gombe.	1919.	N.A.
	Tula	1932.	N.A.
16.	Imo State.		
	Owerri.	1920.	Colonial Government.
	Okigwe.	1913.	Colonial Government.
17.	Jigawa state.		
	Kazaure.	1908.	Colonial Government.
	Prison farm, Birnin Gudu.	1976.	Federal Government of Nigeria.
18.	Kaduna State.		
	Makarfi	1918.	Colonial Government.
	Kujama Farm, Central Prison.	1976.	Federal Government of Nigeria.
	Birnin Gwari.	1958.	Colonial Government.
	Kaduna Prison.	2002.	Federal Government of Nigeria.
	Bostal Training Institute, Kaduna.	1962.	Federal Government of Nigeria.
	Zaria prison.	1903.	Colonial government.
	Ikara	1979.	Federal Government of Nigeria.
	Convict prison Kaduna.	1915.	Colonial government.
	Kafanchan	1933	Colonial Government.
S/no	Prison/state.	Year of construction.	of Built by which authority.
19.	Kano state.		
	Kano, central.	1910.	Colonial Authority.
	Wudil, Divisional prison.	1976.	Federal government of Nigeria.
	Goron Dutse.	1935.	Colonial government.
20.	Katsina state.		
	Katsina prison.	1918.	Colonial Government.
	Funtua.	2003.	Federal government of Nigeria.
21.	Kebbi state.		

	Zuru Prison.	1927.	Colonial government.
	Birnin kebbi Old.	1912.	Colonial Government.
	Medium security Prison, Kebbi New.	1991.	Federal government of Nigeria.
	Argungu.	1998.	Federal government of Nigeria.
	Yelwa Yauri	1960.	Federal government of Nigeria.
22.	Kogi state.		
	Ankpa Prison.	1915.	N.A.
	Dekina Prison.	1916.	N.A.
	Idah prison.	1901.	N.A.
	Kabba.	1945.	N.A.
S/no.	Prison/ State.	Year of Construction.	Built by which Authority.
	Iconton- Karfe.	1933.	N.A.
	Medium security prison, Okene.	2007.	N.A.
23.	Kwara state.		
	Ilorin.	1914.	Federal Government of Nigeria.
	Lafiagi Prison farm.	1966.	Federal Government of Nigeria.
24.	Lagos state.		
	Kirikiri, Female	1963.	Federal Government of Nigeria.
	Kirikiri, Medium.	1954.	Federal Government of Nigeria.
	Ikoyi Prison.	1961.	N.A.
	Badagry.	1838.	N.A.
25.	Nasarawa state.		
	Keffi Prison.	1930.	N.A.
	Lafia, prison.	1977.	N.A.
	Nasarawa, prison.	1912.	N.A.
	Wamba, Prison.	1919.	N.A.
26.	Niger state.		
	Agaie	1932.	N.A.
	Bida.	1887.	N.A.
	Kagara.	1887.	N.A.

s/no.	Prison/state.	Year of construction.	Built by which authority.
	Lapai, prison.	1952.	N.A.
	New Bussa.	1968.	Federal Government of Nigeria.
27	Ogun state.		
	Shagamu.	1938.	N.A.
	Ilaro.	1938.	Colonial Government.
28.	Ondo State.		
	Owo.	1910.	Colonial Government.
	Okitipupa.	1935.	N.A.
	Ondo, prison	1910.	Colonial government.
	Ile Ife.	Rebuilt 2001	Federal Government of Nigeria.
	Abeokuta Institute.	Borstal 1984.	Federal Government of Nigeria.
	Ijebu-Ode.	1925.	Colonial Government.
29	Osun state.		
	Ilesha.	1920.	Colonial Government.
30.	Oyo state.		
	Oyo Prison.	2007.	Federal Government of Nigeria
	Agodi.	1920.	Colonial government.

s/no.	Prison/state	Year of construction.	Built by which Authority.
31.	Plateau State.		
	Lantang prison.	1979.	Federal Government of Nigeria.
	Hakushi Prison farm.	1976.	Federal Government of Nigeria.
	Jos Prison.	1936.	Federal Government of Nigeria.
	Shendam, Prison.	1933.	Federal Government of Nigeria.
	Wase Prison.	1933.	Federal Government of Nigeria.
32.	River state.		
	Ahoada	1910.	Colonial Government.

	Elele.		1976.	Federal Government of Nigeria
	Port harcourt.		1918	Colonial Government
33	Sokoto state.			
	Sokoto Prison.	Central	1908.	Native Authority.
	Bislam farm.	Prison	N.A	N.A.
34.	Taraba state.			
	Gembu		1946.	N.A.
	Jalingo		1912.	N.A.
	Serti.		1961.	Federal government of Nigeria,
	Wukari		1992.	Federal Government of Nigeria.
s/no.	Prison/state		Year of construction.	Built by which Authority.
35.	Yobe state.			
	Nashua.		1925.	N.A.
	Nguru.		N.A	N.A.
	Postiskum		1988.	Federal Government.
36.	Zamfara.			
	Gusau.		1993.	Federal Government of Nigeria.

Table 2: The above table shows the prisons in Nigeria, the year it was built and the authority which built it. (Ayade, 2010)

Analysis of Table 2.

From the above table, the total number of prisons in Nigeria is 128. Prisons built by the colonial administration are 47 in number which accounts for 38%, prisons built by the federal Government are 38 in number which about 31% The prisons built by Native authority and others are 12 and 31 which accounts for 9.8% and 20.5% respectively. From the above it can be clearly seen that a good number of these prisons were built prior to 1960, these goes to show to a very large extent how outdated the majority of these prisons are, especially those built by the colonial and native authority. Overcrowding and congestion has stretched these facilities even further bringing them to a now deplorable state. Prisons built by the federal government were found to be poorly designed and failed to take into cognizance, the future problem of overcrowding especially prisons in

markurdi and Okene, while those built in 1900 had similar features. The Warri prison is historic and indicative of a prison that was used as a slave camp but converted (make shift structure) to a prison. Most of the Native and colonial prisons except for the Elele and Oko medium were built with materials which have presently become outdated. Summarily, Prison infrastructures in Nigeria are unfortunately in very bad shape reflective of decades of neglect and lack of concern by the federal government, it is also important to note that very little or no expansion has taken place to tackle the problem of overcrowding and congestion in Nigerian prisons.

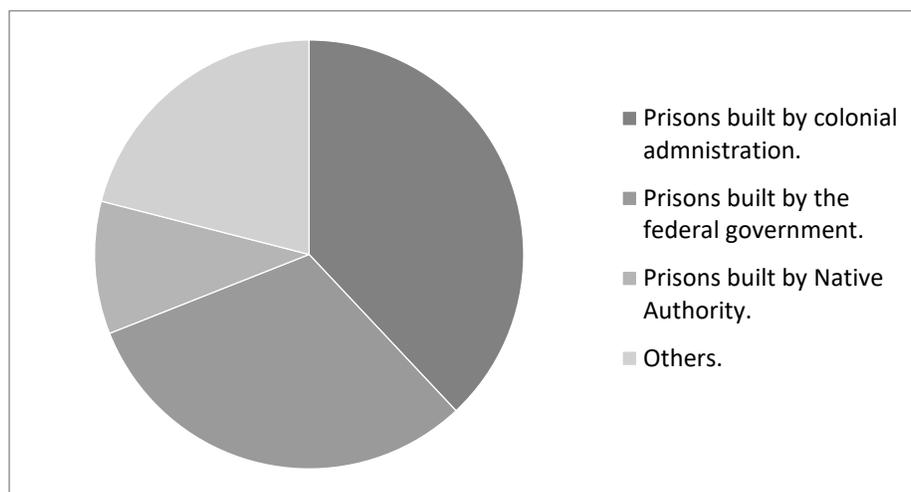


Fig 7: chart showing percentage of prisons built by various authorities. (Ayade, 2010).

PRISON DESIGN FOR REHABILITATION

Schools should make you learn; hospitals should make you better and prisons should help prisoners reform. Designing a rehabilitative environment points to the design of therapeutic spaces which feel safe, calm and are low stress. In October 2006, a report from Gleeds a construction consultancy firm examined the way in which prison design can facilitate rehabilitation. The report suggest that improved design can reduce assault (Placeholder1)by staff by over 50%,significantly reduce stress under which staff work, reduce overall lifecycle cost and see prisoners rehabilitated.

Design Consideration.

There are a range of factors that could be considered. Some of the most effective beneficial factors that can positively impact on and improve an individual’s mental and physical wellbeing are summarized below:

a) Natural Light:

Exposure to natural light plays an important role in setting and maintaining the body's biological clock (circadian rhythms). Disruption of circadian rhythms can affect hormone regulation and lead to short and long-term health consequences. Inadequate exposure to natural light can lead to vitamin D deficiency and depression. Lighting design which mimics daylight changes helps the body to maintain circadian rhythms. Variations in indoor lighting levels and spectra can have a positive impact on cognitive performance and mood. Lack of daylight and insufficient darkening at night can, like noise, affect the quality of inmates' sleep. Exposure to light during the night-time inhibits the production of melatonin, which affects sleeplessness. Chronic sleep problems have a negative impact on health, by increasing stress and social problems which can lead to unhealthy behavior (increased smoking, poor diet and reduced exercise). The Mandela Rules require that prisoners have adequate light where they live or work. For all new constructions, the net clear glazed window area—excluding bars, grilles, or other obstructions—in a cell, dormitory or daytime activity space must be at least eight percent of the net floor area of the room. The use of textured, wired or obscure glazing panels will affect the transmission of light and requires a greater glazed window area. In the case of renovation to existing cells or dormitories, wherever possible, the window area should be expanded to meet the eight percent requirement. Where infeasible, the window area must be an absolute minimum of 0.1m² per person.

Good day lighting from windows can generally be expected to extend into a room to a depth of about twice the distance from the floor to the top of the window. The height of prison windows should be set to allow views out of the room, particularly in dormitories, cells, and isolation cells. Tall windows provide light and ventilation while views out provide some relief to prisoners; windows must be sufficient in size to allow the entrance of fresh air whether or not there is artificial ventilation.

Artificial lighting is to be provided in all areas where prisoners live or work and must be strong enough for prisoners to read or work without injuring their eyesight. The minimum level of lighting depends on the nature of the space with regard to reflectivity/absorption of light, the required tasks and the period of occupancy. A typical lighting level of 100 lux at 800mm, above the finished floor for at least 75 percent of each

occupied space is considered to be adequate, but this may be reduced or increased depending on the reflection value and texturing of surfaces and colours, external shading, and climate considerations. More appropriate lux levels for specific spaces/uses may be beneficial in reducing capital and life cycle costs. Artificial lighting will depend on the availability of electrical services and alternatives such as solar PV lanterns, or fuel burning lanterns. The quality of the alternatives to conventional electrical lighting needs to be examined in relation to fire and security risks, management procedures and local expectations. Finally, security and well-being for both prison staff and prisoners is improved with effective light levels and controls. However, light levels can also be misused as a form of punishment. To help prevent such measures, dark cells must not be incorporated into a prison's design.

b) Green spaces/ landscaping Gardens:

The well-being benefits of green outdoor spaces are well documented. Research undertaken in healthcare settings has conclusively found that individuals who have a view of or access to nature/ gardens benefit from:

- Reduced stress;
- Reduced feelings of pain (hospital patients)
- Faster recovery from medical interventions
- Increase patience and task enthusiasm
- Lower levels of frustration

Landscaping offers the benefits of the visual connection with nature. Green recreation and garden spaces create potential for increased physical activity, skill building as well as self and collective efficacy. The introduction of well-connected continuous wander paths/ gardens with attractive views is used much more frequently by people than gardens/ paths lacking these characteristics.

c) Indoor Planting:

The presence of plants in a workplace can reduce blood pressure and increase attentiveness and reaction times by 12% for people performing stressful tasks. Studies have found that pain levels and reported medication use were lower amongst patients assigned to rooms containing indoor plants.

d) Colour

Variety in colour is good both as a means of navigation/ way finding and also as a way of lightening mood, providing stimulation and visual

interest both for prisoners and staff. Further research evidence is required to establish if colour has any significant influence on general psychological behaviour. Nonetheless, the choice of colour will affect the brightness of a room. The choice of certain colours can contribute to how homely or institutional a room is perceived. Generally, all age groups associate positive emotions with bright colours and negative emotions with dark colours



Fig 8: showing the use of colour as way of lightening mood. (Gleeds Report., 2006)

e) Nature

There is emerging evidence that a view of nature or even pictures of nature help to reduce stress. The presence of windows with views of nature (e.g. trees and plants) has a strong restorative effect, particularly in institutional settings. Visual access to nature has been linked to lowered heart rates and lowered blood pressure as well as positively influencing mood, happiness and attitude. Views of nature and daylight can affect satisfaction, health, irritability, aggressiveness, mental function, problem solving, and stress. Views of nature can be restorative and can be especially useful when people seek to restore calm after experiencing threatening or emotionally difficult events. One study found that the positive effect of nature views was strongest where inmate turnover was the highest. Far reaching views have been shown to reduce

boredom, fatigue and irritability as well as improve feelings of individual comfort and perceived safety.

f) Windows, Views

Most people have strong preferences for windows in many kinds of settings. Windows provide visual variety and the potential for psychological escape and can therefore mitigate boredom and isolation, providing a connection to the outside. The ability to access views of nature can be particularly important in closed institutions where physical access is otherwise limited. The use of glazing rather than bars, infrared sensors, a secure outer perimeter with few prominent barriers within the prison ground, and excellent sight lines will create a more humane and normal environment. The topography of the land where the prison is situated should be examined to establish if any natural views can be incorporated into the design, especially from the prisoner accommodation and recreation areas. Allowing prisoners to see “beyond the wall” may help in reducing feelings of isolation and detachment from the outside world. (UNOPS, 2016.)

g) Acoustics

Music has been found to decrease anxiety and pain intensity among surgery patients. As well as studies on music general acoustic quality is also an important factor. Patients admitted to an intensive care unit (ICU) which had poor acoustics had significantly higher re-hospitalization rates than patients admitted to an ICU that benefitted from good acoustics. Excessive noise can be a stressor leading to an increased heart rate and blood pressure. Loud and sudden sounds have a negative effect on people, although a complete absence of sound can also be detrimental. Sounds needs to be appropriate to the space. For example sound may hinder tasks that require hearing and internal monologue but aid in tasks that do not require hearing. Sounds associated with a particular meaning (such as a baby crying) may be particularly distracting in task performance. In an effort to reduce noise, consideration should be given to the use of materials and panels that dampen the acoustics of a space, especially in large communal areas. Cells that connect to open communal spaces should have a closed frontage rather than open bars. This allows prisoners the opportunity to withdraw from a noisy environment into a quieter space. (UNOPS, 2016.) Sounds that are perceived as pleasant (like calming music) can help in task performance and can be used to mask negative sounds.

H) Air Quality

Research on the effects of indoor climate suggests that motionless air and an unchanging environment have a negative impact and could lead to lethargy/ decreased vitality. Smell can also affect a person's mood, memory and behaviour. Positive smells and aromas can have a relaxing effect on muscles, and can improve concentration and enhance production of endorphins. Unpleasant smells may on the other hand be associated with unpleasant memories, anxiety and stress.

I) Materials

The texture of furniture and other interior design elements such as carpets can influence a person's perception of a room. Soft textures are associated with a welcoming environment. Natural materials (wood, textiles) are also used to reduce stress.

J) Art

Visual art can have a positive effect on mood. Natural images are viewed particularly favorably by hospital patients, whilst more abstract and stylized art should be avoided as they are generally unpopular/ difficult to understand. Patients consistently prefer texturally complex paintings of natural settings over simple poster images. This has been found to be the case regardless of patient characteristic.

K) Density

Social density (number of people per room) has been found to be a more important factor than spatial density (the size of the room) in reducing stress. Low social density rooms alleviate stress and, by extension, aggressive behaviour. There is strong support for the fact that private rooms with private bathrooms reduce stress within prison environments, whereas shared rooms or bathrooms increase aggressive behaviour. Inmates and people with a history of aggressive behaviour need significantly more personal space than others and the experience of crowding and perceived violations of personal space are amplified in small spaces.

L) Size

Unit, group and facility size is closely linked to the theme of density. Research of youths in detention indicates that smaller group sizes have a more positive effect on individuals. Male juvenile offenders placed in smaller living units showed greater affection toward and identification with counselors. Inmates housed in a smaller unit (38 compared to 47) had fewer time additions to their sentences. As a result, more spaces were

kept open as juveniles left the facility rather than staying for longer periods. There are some conflicting findings as to whether the overall size of a prison has an impact on an inmate's behaviour, but there is some evidence that the overall effectiveness decreases with increases in institutional size.

M) **Recreational space:** recreational activities are important not only because they promote wellbeing but also because they alleviate boredom, which can cause a variety of negative behaviors such as frustration, violence, self-harm and drug use. Moreover the opportunity to engage in (and become attached to) positive and normal recreation is often a powerful motivator to sustain behavior change. Two specific approaches are recommended:

1. Providing access to recreation helps prisoners to release tension, reduce anxiety and manage excess energy. Prisoners on some medications may suffer side effects of excessive restlessness and need access to pro-social activities. However, prisoners also need to relax or have quiet times away from other prisoners.
2. Designing passive and active spaces. When planning external spaces on prison sites, consideration should be given to both 'passive' spaces, where prisoners (and staff) can be still, tranquil and contemplative, and 'active' spaces that allow prisoners to keep fit and have time in the fresh air. The latter might include sports fields, courts for ballgames, gym equipment (e.g. bars for pull-ups), walking paths and jogging tracks. Activities that combine both passive and active elements such as yoga should be adequately catered for.

PRISON DESIGN FOR OVERCROWDING

The overcrowding of prisons and prison systems is an extensive and widespread problem that occurs when the population of existing facilities exceeds their designed capacity. Prisons that exceed their capacity often result in violations of detainees' human rights. Overcrowding has many causes: the growth of prison populations, insufficient prison infrastructure, high imprisonment rates and harsh sentencing guidelines, excessive pre-trial detention, lack of non-custodial measures and sanctions, and various social, economic, and political factors all contribute to the problem. The most immediate consequence is that many prisoners do not have the minimum space requirements consistent with

human rights standards. However, overcrowding also affects the ability of prisons to provide adequate food, sanitation, and health services, while increasing the incidence of disease and the difficulty of safe and effective management of prisons.

For all of the above reasons, overcrowding presents a significant practical difficulty in the design of prisons. However, attentions to little details such the design of a septic tank will help mitigate excessive overcrowding. For example, a prison that is strictly planned to accommodate 400 prisoners may include a septic tank that will be able to meet the needs of a population that exceeds 600 prisoners due to overcrowding, if this is the permanent state of the prison population. On the one hand, the provision of a larger septic tank and services that anticipate overcrowding may be a practical solution (or at least a mitigating measure) to this problem. consideration may also be given to re-classifying under-utilized areas around correctional facilities, to maximize the use of existing facility space to provide for more sleeping accommodation, this entails converting existing non- prison facility into in-mates housing units ,double bunking and triple bunking, while ensuring that the separation of prisons complies with world global standards.

S/no.	Prison.	Design capacity.	Floor area per prisoner (Msq.)	Total capacity.	Floor area per prisoner. (Msq.)	Prison Type.	Bed types.
Ebonyi state.			Initial Design.				
	Afikpo.	200	2.0	271	1.47	Dormitory.	Double Bunk Beds
Imo state.							
	Owerri.	548.	3.2	1,316.	1.33	Dormitory	Double Bunk Beds
	Okigwe.	540.	3.0	275.	5.89.	Dormitory	Double Bunk Beds
	Total	1288	8.2	1862	8.89.		

Table 3: shows the capacity some prisons in the south east, Afikpo, Owerri and Okigwe. (Author’s field work)



Fig 9: showing aerial view of case study area. (Author’s field work).

Analysis of table 3.

Recall that, according to the international committee of Red Cross (ICRC), 3.4 metres square per inmate for dormitories containing single beds; 2.6 metre square for dormitories containing double bunk beds and 2.3 square metre for dormitories containing triple bunks might serve as the approximate desirable guideline for a detention cell. Therefore, finding a human placed under a space less than or far below 2.6 metre square, evidently results in inhuman conditions of confinement. The table above shows the usable floor area for each prisoner in correctional facilities in Afikpo, Okigwe and Owerri, in Nigeria, some of which fall above or below the required 2.6 metre square per prisoner. It’s important to note that the okigwe correctional facilities is the only correctional facility from the three case studies that provides inmates with adequate useable space that fall above the required standard.

Correctional facility.	Availability of recreational facility.	Availability of Educational facility.	Availability of Sanitary appliances.
Owerri.	Not Adequate.	Not Available.	Not Adequate, when compared to available and Existing standards.
Okigwe.	Not Available	Not Available.	Not Adequate, when compared to available and existing standards.

Afikpo.	Not Available.	Not Available.	Not Adequate, when compared to available and existing standards.
---------	----------------	----------------	--

Table 4: shows Availability of recreational, educational facilities and sanitary appliances.

Summary of findings.

1. A good percentage of Nigerian correctional facilities, were built by either Native Authorities or colonial administration, predating the era Nigeria gained independence, this calls to question their operation and functionality.
2. Most of the correctional facilities built within this period were not purpose built they are make- shift structures ,structures intended for other use ,but remodeled to correctional facilities.
3. Very few correctional facilities in Nigeria were constructed with detailed design, in most cases substandard materials were used which is a far cry from Modern state of the art correctional facility.
4. The Okigwe correctional facilities has have almost doubled its design capacity which has further stretched the already substandard material used.
5. Two out of the three case studies carried out fell below the required standard of 2.6 metre square for dormitories containing double bunk beds.
6. The three case studies carried out were all the dormitory type of cell design none used the detention cell per inmate method or the single cell method.
7. Height of room for the three case studies was above the required 2.6 metre square. 3.2 metres for the Afikpo prison, 3.4 for the Owerri prison and 3.25 for the okigwe prison.
8. Vertical space between beds for all three case studies was less than the required 1.2 metres, 0.9m for Afikpo prison, 0.8 metres for Owerri prison and 1metre for Okigwe prison.

RECOMMENDATION.

1. consideration may be given to re-classifying under-utilized areas around correctional facilities, to maximize the use of existing facility space to provide for more sleeping accommodation, this entails converting existing non- prison facility into in-mates housing units ,double bunking and triple bunking, while ensuring that the separation of prisons complies with world global standards.

2. Important ancillary facilities in these correctional facilities should be inclusive in the overall design, facilities such as vocational schools, workshops and well -designed sporting facilities if present can make administrators increase the time inmates spends out of their cells, ideally this would include the maximum possible time spent in the open air.
3. Prison construction programmes or acquisition of additional space through privatization can provide relief in case of congestion.
4. Architects are to be involved in the initial design phase of any new correctional facility and any plans to remodel existing ones which fall below the required standard.
5. Priority should be given to reformation and overcrowding during the initial design of correctional facilities if efforts of the present administration to change the face of the prison sector are to be sustained

Reference.

- Albrecht, H.-J. (2018). Prison Overcrowding- Finding effective solutions, Strategies and Best practices against overcrowding in correctional Facilities. *ResearchGate*, 65-130.
- Awofeso, N. (2009). Prisons as social determinant of infection. *Public Health Report.*, 125.
- Ayade, E. (2010). *Problems of prison Overcrowding in Nigeria:some lessons from south africa and America*. Badapest.
- Baker, J., Lattimore, P., & White, A. (2002). *A solution to Prison Overcrowding and recidivism*. Maryland.: University of Maryland.
- Buikema, C. (2005). *Inform Design*. Retrieved October 17th, 2020, from Inform Design Website.: [Http:// www.informdesign,umn.edu](http://www.informdesign,umn.edu)
- Churchman, R. B. (2002). *Handbook on Environmental Psychology*. Denver: John Wiley and sons.
- committee., C. (2008). *Report to the government of United Kingdom on the visit to the United Kingdom Carried out by European Committee for the prevention of torture and Inhuman or degrading treatment or Punishment(CPT)*.
- Curt, T. G., & Danielle, J. (2009, February). *www.icclr.law*. Retrieved October 13, 2020, from [www.icclr.law: http://www.icclr.law.ubc.calfiles/2009/overcrowdingpdf](http://www.icclr.law:www.icclr.law: http://www.icclr.law.ubc.calfiles/2009/overcrowdingpdf)
- Davids, J. (2011). Hell On earth : our prisons and dreaded chambers. *African Concord.*, 147:14-21.
- Eva, J. (2015). *The Children on our streets: Reading for youth and Child care workers*. Jerorme Press International.: uyo.
- Giffard, C., & Muntingh, L. (2006). *The Effect of sentencing on the size of the south Africa prison population*. Newlands.
- Goffman, E. (1968.). *Asylums*. Harmondsworth.: Penguin.
- Goffman, E. (2001.). *Asylums*. New York: Garden city.: Anchor Books.

- Goffman, H. (1995). *Correctional health care : A public health opportunity*. Silver press.
- Hight, I. (2016, september 28). Architecture and Prison: why design Matter. (I. Wall, Interviewer)
- ICC. (2018). *International Building Code*. International code council.
- ICRC. (2013). *Water sanitation, Hygiene and Habiatat in Prison*. Geneva.
- Jack, Y. (2006). *wwwl.chr.up.ac.za*. Retrieved october 14th, 2020, from wwwl.chr.up.ac.za: http://wwwl.chr.up.ac.za/undp/domestic/docs/legislation 03.pdf
- Johnston, N. (2000). *Forms of constraints: A history of Prison Architecture*. Urbana,Illinois: University of Illi.
- Leslie Fairweather, S. M. (2013). *Prison Architecture*. London: Routledge.
- Manfred, N. (2006). *Commission of Human Right: Reports of the special Rapporteur*.
- Mauer, M. (2007.). The hidden problems of Time served in prison. *Social Research.*, 701-706.
- Morris, N., & Rothman, D. (1998.). *The Oxford History of Prison*. New York: Oxford University Press.
- Nigeria, N. (2006). *Prison reform: Panel's recommendation will be implemented- Obasanjo*. Abuja.: New Nigeria.
- Niyi, A. (2017). Disciplinary Architecture: Prison Design and prisoner's health. *A Journal of of Medical Humanities*, 144-168.
- Nnamdi, L. (2015). *Reducing The crime Rate in Nigeria*. Yenagoa.: Aobangahfromes publishing co.
- Obioha, E. (2011). *challenges and reforms in the Nigerian Prison System*. Pretoria: Jek publishers.
- Ojo, E. (2007). In prison with prisoners. *The Tell Magazine.*, 12.
- Okunola, R. (2006). *Institutional treatment and social stigma: A comparative study of Amanawa leprosaruum and sokoto prisons*. Sokoto.: F. S.S.A research publication,University of sokoto.
- Oluwakuyide, A. (2011). *Reforming our Prisons*. Lagos.: The Nigerian Tribune.
- Onyekachi, P. (2010.). *The Nigerian Prison: what they look Like from the inside*. Ibadan.: Hurren publishers.
- Reasons, C., & Caplan, R. (1975.). Tear down the walls? some function of prisons. *Crime and deliquency*, 21., 360-372.
- Report., G. (2006). *Rehabilitation by design; influencing change in prison behaviour*. Brighton.
- Tinuoye, O. T. (2007). *www.eprints.covenantuniversity.edu.ng*. Retrieved October 15th, 2020, from www.eprints.covenantuniversity.edu.ng: http://www.eprints.covenantuniversity.edu.ng
- UNOPS. (2016.). *Technical Guidance For Prison Planning*. Copenhagen.
- Wolchenkov, D. (2008). *www.worldscientific.com*. Retrieved october 15th, 2020, from [www.worldscientific.com: http://www.worldscientific.com](http://www.worldscientific.com)