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The worst nightmare of the people in Europe and the USA in particular has come to pass: “hoards” of Asians, Middle Easterners, the Central Americans and the dreaded Africans are braving the deserts, mountains, jungles and the seas to, what Mr. Trump claims, “invade” their countries! As of the past, as of the Romans, as of the “whites” in the “new world”, the “barbarians” are seeking to knock down the walls of civilization. Well, if not barbarians, at least these semi-barbarians, as they are portrayed in the media, in ragged clothes and hungry looks, in their hundreds and thousands are rushing to destroy the sanctuaries of civilization, peace and prosperity in Europe, and the USA. Country after country is enacting laws or fermenting opposition to curb such invasion, often challenging these so called “migrants” at the borders with armed soldiers, barbed wires or walls, while some get stopped even before they start on their “caravans” hundreds of miles from the borders. The nightmare is played out on the evening television screens on a daily basis, frightening millions, with no end in sight.

Yet, for the Europeans and the “Americans” (USA) this is the best of the possible scenarios, happening after more than three quarters of a century of brutal “population control” in the lands of the barbarians, and I am not even counting the hundreds of millions of barbarians the Europeans took delight in killing in Asia, Africa and the “new world” over the previous five centuries. Just think how many more millions, perhaps billions, would there be? Millions and tens of millions in place of the hundreds and thousands would be invading civilization today, Europe would have drowned in the Mediterranean and the land between the two oceans would have been obliterated by the weight alone of the migrants. Fortunately, the Europeans and the Americans (USA) had the foresight and the proper planning and even better execution to stop such a catastrophe and have actually saved their civilization from the far bigger invading hordes. By and large they have successfully blocked the invasion in the womb, literally!

Beginning after the World War II, as countries of Asia and Africa gained their independence from European colonizers, it was realized that these “new” countries will one day become claimant to the civilization that the Europeans had “created” over the past five centuries. The best way to deal with the “problem” would have been to continue the colonial occupation but the political and economic realities of the time made continued occupation unworkable. And while these countries began to make claims to the economy and the technology of the time, began to develop, it was realized that the best option to contain them would be to reduce their numbers. With numerous statistics and historical references it was successfully demonstrated that it would be to the advantage of these “new” and “poor” countries to control their populations if they wished to enjoy the fruits of the modern civilization, to become “modern” and “developed”. Pushed largely by the USA and its institutions like the Rockefeller Foundation and the Ford Foundation and even the United Nations, the logic presented was so flawless and prospects so boundless that it convinced even the leaders of the two of the largest populations, India and China, who eventually forced “population control” on their own billions.

These new and poor countries were so backward, so far below the civilized standards of Europe and the USA, that they were portrayed as just coming fresh out of the caves and deserts, and in case of
Africa, literally out of the jungles. Even Tarzan, in his loin cloth, was considered more civilized, after all he could say, “Me, Tarzan, you Jane” in English, in spite of being brought up by a gorilla in the thick of the African jungle. And, of course, he was white. This everlasting backwardness of the Asians and Africans was not only propagated in the popular media and believed by the common white folks across the world, but was also accepted in the academic circles. Even Karl Marx in his time believed it to be true.

These were “new” countries simply because there never was a state called Pakistan or Tanzania or even India, the boundaries of which were drawn afresh by the Europeans at their will while they ruled or when they left, combining or splitting tribes, nations, ethnic groups into “new” agglomerations. Hence, they were new countries with new names, new peoples and mostly unacceptable borders. That they were “poor” needed very little evidence. Even a cursory look, or visit to any of these countries was enough to witness the near naked, hungry populations in their shacks, the barrenness of their fields, the dusty, dirty towns and cities. And nothing could be done about it, “they were poor, because they were poor”!

Given such a grim scenario, the “rich” and modern countries of Europe and North America felt obliged to assist and “aid” them to come out of this stark poverty, to become modern like the “West”. From sociologists to economists, to politicians and philanthropists all wrecked their brain as to how to “develop” these poor hoards in Africa and Asia, make them “modern”. In the process, it was universally recognized that whatever gains could be made were simply being “eaten up” by the vast and fast growing populations, while the unanimously identified solution discovered was to check and “control” this population growth. From vasectomy, to the distribution of free condoms, indiscriminate use of the media, to sending religious priests door to door were tried to limit this population growth in country after country, including, most persuasively, in India and China, the two largest culprits.

While development and the level of modernity attained remain questionable for most countries, particularly in Africa, after seventy years or so, the accomplishment of the population control programme has undoubtedly been demonstrated in many countries. The initial reaction to the notion of “population control”, often dubbed as “family planning”, was very negative and in some cases met with tremendous resistance such as in India, where the government of Indira Gandhi fell allegedly due to her enforcement of the programme. But by and large because of a very successful campaign by the governments, support from the academics and with the example of the happy and prosperous small families in the West in front of them, also the reality of the increasing difficulty of sustaining a large family in an ever expensive market, the population programme was successful in most cases, including in Bangladesh, often called the “poorest of the poor”. The population problem solved, the people in Europe and the USA could finally sleep peacefully!

Why is then such an uproar about migration to the “West” today? Why are then people still defying death to get to the USA and Europe? Why are the Europeans erecting barbed wire fences and Mr. Trump seeking to build moats with snakes (sic) in them to guard his borders? What went wrong?
Well, **everything, the very notion of population as the problem was wrong.** And today, the results are so horrifying that one needs to keep one’s calm even to discuss these. There are so many things wrong, theoretical, factual, economic, social, cultural, political and even religious that it is difficult to see where to start from. I shall try to deal with only a few of them here.

Let’s start with a bit of history known to most, but let’s do it in any case just to refresh our memories, also because we often fail to see the obvious connection. Beginning from the middle of the fifteenth century to the middle of the 20th century, the Europeans, Portuguese, the Spaniards, the Dutch and finally the French and the British went on a five century of rampaging the world in a fashion no less barbarian than that of the Mongols, who are unfortunately the ones to get a bad press (in the West, of course). Where ever these Europeans went and where ever they found a weak population, no matter how large, they simply obliterated them from the map, depopulated continents, cleaned up the land, so to say, and settled their own people. That was easy in the Americas and Australia with low levels of technology, they even gave “new” names to these places. Africa was a difficult terrain, nonetheless, they managed to set a foot hold there too and indiscriminately killed its people and animals at the same rate, indeed, treated them as one and the same, and curved up the continent among contending European countries sitting at a table in Europe.

In Asia, they found it a bit difficult to sink their teeth in as long as there were strong central governments as in India and China. It took over two and half centuries for the Europeans or 165 years for the East India Company to conquer a major region of India. Also these land had too many people to “kill” off so easily, therefore, they decided to suck the life blood out of these hoards. In the middle of the 18th century China created 30 percent of the world GDP and India (the Sub-continent) did about 25 percent of the world GDP, which should suffice to assert that these countries were not “poor” to begin with, indeed were among the richest for millennia past and the very reason the Europeans sought out these lands in the first place. As was also true of the Americas. It was for the gold and silver of the Aztecs and the Incas that the Spaniards looted and killed the locals. The pre-Columbian world and definitely the pre-British India and China were far richer than Europe which catered for less than 20 percent of the world GDP by the best estimate. Indeed, it was the **poverty in Europe** that forced the Europeans to seek a better life elsewhere. Hence, brave the oceans, and deserts and jungles to migrate to other lands! And by, killing, looting and destroying the resources of Asia, Africa and the Americas, the Europeans became “rich” and made the rest of the world “poor”.

Nor were these countries “new”. India, Pakistan and Bangladesh are new only because of the new boundaries drawn on a land that has been populated for over sixty thousand years, and had a thriving civilization for at least six to eight thousand years. China, similarly can trace a continuous line of civilization to five thousand years past. Europe may not acknowledge, but Africa and the Americas also had vibrant culture, economy, polities and history for millennia before the Europeans deemed it necessary to destroy them. Other than new boundaries and new names forced on these lands and peoples, they were definitely not “New”. Africa is the very place where humans became sapiens and migrated to Europe much later to become the “white-folks”!
So that the Europeans and the current “Americans” (USA) have been feeding a false narrative from the very beginning. As they did with false statistics too. In much of the literature since the 1950s, statistics of a vast and fast growing population in these new countries was presented to support another false narrative: the “Population Problem”. A population, large or small or how densely it is packed is never a “problem”. It’s relation to other factors that may be problematic. A population, a very large population such as that of the USA today, or small one as that of Kuwait or UAE, is not considered a problem, whereas a small population such as that of South Sudan or Malawi is considered as a problem. Nor is density the problem, Europe is far more densely packed than Africa and has been for millennia, but its population is not treated as a problem.

Population, particularly a large population as that of Bangladesh, India or China, is a problem when the country fails to feed its people, meaning in relation to the resources under its command. A large population when it commands enough resources within or outside its borders is not seen as a problem as is true of the USA today with double the population size of Bangladesh. So the problem is not one of the population but of the “resources” and needs to be called a “resource problem” instead, as I have argued elsewhere¹. Most of the so called poor countries with large or even small populations are constrained by resources, so that the problem they face is one of resources and not of population. Given enough resources to feed and clothe this population they will not have, what has been wrongly identified as, the “population problem”. This is very well attested by the pre and post OPEC histories of the oil rich Arab countries. Nor would there be a need to “control” that population.

But that’s not to say that there is no such thing as a “population problem”. On the contrary, there are different kinds of population problems. The first of these also have to deal with resources, albeit in a different vein. A country or a region may have huge amount of resources but not enough people or skilled people to deal with those, as in the case of the Arab countries for the former instance and some African countries as examples of the latter situation. Here it is clearly a “population problem”, they do not have enough or skilled population. The country may solve this problem by importing people, skilled and less skilled depending on the resources it has under its command. Kuwait, UAE and Saudi Arabia, for example, have too much resource, albeit of only one kind, but not enough people to deal with these resources, therefore, they have a “population problem” and they are dealing with it by bringing in people, skilled and less skilled, by their millions from the other countries. Africans on the other hand, are yet to master their resources since much of these are under foreign control and they do not have enough skilled people to work on them either. So they continue to be plagued by the “population problem” along with their original “resource problem”, the lack of control over their own resources.

The false narrative of population problem, which in reality is a resource problem, for the new and poor countries, was forcefully supported with a set of misplaced statistics by the academics and the governments of the West, particularly the USA. With population statistics for the 1950s and 1960s it was very easy to show that these countries of Africa and Asia did not only have large populations but that population was also growing fast and remained densely packed, thus, negating all efforts at

development. While on the other hand a rosy and contrasting picture of continued prosperity was painted for the European countries, Australia New Zealand, Canada and the USA with their low population density, low population growth rate and small populations in general (USA has a large population but low density and low growth rate). These statistics went a long way to re-enforce the false narrative, to the extent that even the communists in China came to accept the basic premises.

Given these statistics, to a cursory reader, the case for a population problem and the necessity of population control was done and dusted. Unfortunately, as had been demonstrated long ago by Darrel Huff⁴, “statistics are a liar’s best friend”, all you need to know is how to use, or twist them. Like others, I showed these to be especially true for the population statistics⁵. The data presented usually covered the 1950s and the 60s only, after all, most of these countries did not even exist before these times and there were little or no data prior to that for many of them. So, you could not fault the statisticians either. But dig a little deeper and there are enough data to do so. For example why should one be restricted to the data from 1950s and 1960s only? These countries did exist long before then and people lived in them and produced off-springs too. So, why not the 1750s for instance? Interestingly, the data from the 1750 actually turns the story 180 degrees, on its head. Let me quote below extensively from one of my earlier studies³:

"Except for South Asia, parts of China, Indonesia and Egypt, no other country or region in the Third World can be called overpopulated or even densely populated. Indeed, most of the Third World is extremely underpopulated (U. N., 1976). Population density for most of South Asia is actually lower than for most of Europe, as it has been for the past few centuries.

But the most outstanding fact of all, which is rarely mentioned, is the growth of European population over the last two centuries (emphasis added). The total European population including its settlements in the new World in 1750 was 158 million, or 21.8 percent of the total world population then. For Europe only this was 144 million, or 19.8 percent of the world total. By 1930, the period by which the industrialization of most of Europe and North America was achieved, the European (only) population had increased to 532 million, or 3.7 times, accounting for 26.5 percent of the world total. While Europe plus the New World increased to 786 million (from 158 million) or 4.9 times, and accounted for 39.1 percent of the world population. Compared to these, the African population increased from 95 to 157 million over the same period, or only 1.6 times (in fact, for a time this had declined to only 90 million [due largely to slave trade and indiscriminate killing by the Europeans]). The Asian population increased from 457 to 1072 million during this period, or a little more than doubled. Percentagewise, African population fell from 13 percent of the world total to 7.9 percent and similarly Asian population fell from 65.3 percent to 54 percent (Woodruff, 1967:103).

If these same statistics are followed to the 1960s, it is found that Europe (only) increased its population to 641 million (from 144 million in 1750) or 4.4 times. Europe plus New World increased from 158 to 1062 million, or 6.7 times. While African population increased only 2.7 times and Asian population only 3.6 times (Woodruff, 1967:103).

Other interesting facts appear from the study of south Asian (India, Pakistan and Bangladesh, etc.) demographic history. Between 1871 (the first census year for modern South Asia) and 1921, the population increased by 18.3 percent. It was 47 percent for Europe for the same period. Between 1921 and 1951 the population in India (India, Pakistan and Bangladesh combined) increased by 44 percent. The world increase was 33 percent, North America 45 percent and Europe was 20 percent. According to Davis (1951) the average rate of increase for South Asian population from 1871 to 1941 was 0.60 percent per year, for the world (from 1850 to 1940) it was 0.69 percent. Thus, it was

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² See the quote below.
still low for South Asia. From 1871 to 1941 the total South Asian increase was 52 percent, the increase in Britain was 57 percent, Japan had a 120 percent increase. Overall European population increase between 1600 and 1940 were double that of India (South Asia) over the same period (Davis, 1951)."1

It is clear from these statistics that neither were Asia and Africa "over populated", nor were the populations growing fast. Indeed, it was the European population that grew at least at double the rate of the Asian population for the last four hundred years, much of it as migrants in other continents. Given the current Asian population at 4.5 billion, just a double of that would make the Asian population stand at 9 billion! The Chinese and Indian (South Asian) would be about 3 billion each. Similarly, the African population would have grown to at least 2 billion. It would be a nightmare for Europe if they were to grow at 6 or 7 times, the rate of European (plus the new world) growth for the last two centuries. Guess where all these extra people would go? To Europe, the USA and the rest of the New World, of course, inundating those continents and allegedly destroying civilization as did the Mongols and the Germanic tribes. Hence population control, or birth "control", kill them in the womb!

Whether this was known or understood by the governments and policy makers in the poor countries or not, in their desperate bid to "develop" and become "modern", they tried to "control" their populations in earnest in many countries. And, indeed, a few of them like South Korea, Taiwan, Hong Kong or Singapore are today counted among the developed countries and China is well on its way to similar development while India likes to think so. How much of that is due to population control can be fiercely debated since China still has a huge population, so does India. But more importantly, the causal connection between population growth rate and rate of development has been known to be the reverse one, Japan and the USA had 120 percent population growth during their development2. In my study, quoted above, I too found positive correlation, though not statistically significant, between population growth and development. Indeed, the causal connection, if anything, is in the opposite direction. By most accounts today, development or a higher standard of living itself is acknowledged to lead to the lowering of population growth rate.

This has largely to do with the level of security of the population concerned, which is immensely true of the populations of the other species. Those that are far down the receiving end of the food chain produce off-springs by their thousands, while those on the top, lions, tigers produce a few and some like the elephants or whales few and far between. The same appears to be true of the human population as well. Poverty, poor health conditions and poorer living produce more deaths, child deaths in particular, therefore, to have some children grow to adult age or even at the minimum level of considering social security at old age, families tend to produce more children so that a few can survive and later take care of the old parents. The same has been true of migrant populations all over the world, insecurities associated with migration produces far more off-springs as we saw above in case of the European


colonizers in other continents. On the other hand, better living and health conditions or the economic, political and social security provided by a higher standard of living reduces the need to produce “extra” children. And the need to provide a similar higher standard of living for the children also dictates the need to have fewer children. Lowering of population has little to do with the future growth of the economy, if anything, the opposite is true.

Statistics provided above show that contrary to what is believed, the European population did not “decline” over the centuries, it merely migrated and grew on other continents and at a rate many times faster than in Asia and Africa or Europe. Today European population covers four of the six habitable continents and some live even in the not so habitable one, Antarctica. And much to one’s surprise, even in Europe, the population grew at a faster rate during its phase of increasing economic growth and prosperity. In Japan, population grew at a phenomenal rate during Japan’s period of development as is also true of the USA and UK. Indeed, by some accounts it was essential for the economic growth of the UK. Population growth in these countries slowed down only after attaining a certain level of development.

So that, the low populations seen in the developed countries today are a “result” of social and economic growth, not the other way. The population in countries like Japan and much of the developed Europe continues to drop, which has led to different types of “population problems” like low fertility rate and low population growth rate, smaller labour force etc. While on the other hand, by trying to control of the population to achieve development, as was done by Singapore or China, a new kind of “population problem” has been created. Today one can only hear of the horror stories of the consequences of such deliberate “population control”, which in many ways has, unfortunately, transpired to become the real “population problems” now.

To start, this may be best illustrated by the case of Singapore. After its independence, to “develop” and to attain a fast and high growth of its economy, Singapore began to follow a very aggressive policy of “population control”, restricting births to two children. And later even the second child was discouraged, making life difficult for parents with two children and almost forcing sterilization by the age of 40. But Singapore is only a small city state with a very small population to begin with (less than two million at the time of independence in 1965). The forced “population control” soon affected the fertility rate which fell below the replacement rate (of 2.1) and continues to slow down. Today it stands at only 1.16.

But that was not all, the damage was done in other ways too. The policy, by changing the whole population structure, also started to affect the growth and development of its economy as well and there is a major danger that the economy of the city state may collapse in the near future. With a lower fertility rate there is today fewer and fewer young people entering the labour force while on the other hand due to the development of the economy and health facilities, more and more people are living longer after retirement making the dependency ratio larger and larger, while fewer people are working to keep a

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larger population fed and clothed. "The elderly now make up roughly 13% of Singapore's population but those under 15 years make up only 15%", not enough to support the seniors. So that, now the older people are "eating up" the fruits of development.

To continue on its development path, the government is currently professing the opposite policy, trying desperately to bring up the population figure by encouraging even 3 children families! But again, they are targeting the wrong population of the educated and the rich or those who may "afford" to raise three children. But this is the least interested group. This group of younger population is more interested in pursuing a career and earning more money than getting married and raising children. Even after the government calls for more marriages and more children, few, if any, have responded adding to the woe of the government. And as the Business Insider notes, “Singapore's low fertility rate and aging population have put the country on a dangerous path. If the course doesn't reverse, experts say it could become a "demographic time bomb." These "time bombs" result in shrinking economies and breakdowns in the social fabric.”

Singapore is only a city state with a rather tiny population compared to the larger countries who are facing similar issues. The situation is far worse in a larger population of Japan, where the percent of older population is much higher too. In Japan, the ratio is 27% elderly to 13% young (15 years or less). So that there is even lesser possibility of supporting the older population. With very strict immigration laws the possibility of replacing the lost population through migrants is also very unlikely. While on the other hand, the “workaholic” people of Japan are even less disposed towards marriage and raising children as it costs far more there. Men are so involved with work and career that many women complain of not being able to “date” or get married, let alone having children. Therefore, this has become a country where the population is actually decreasing! Japan's population has shrunk by a million people and it has lost trillions in GDP, all within the last five years, causing all sorts of complications. The creative Japanese society is trying to cope by inventing new technologies to replace the lost population, including building robots to perform most manual jobs, work in factories or homes. Today humanoid robots are already dealing with the tourists at the airports and hotels and robots will become the greatest attraction in the forthcoming Tokyo Olympics. Japan may soon become a society with more robots than people!

But this type “population problem” faced by Singapore and Japan were always on the cards. The success of industrial revolution in raising the standard of living coupled with improvements in medicine and health care had already altered the demographic profiles of the countries of Europe, particularly those of the Western and Northern Europe. France or Sweden have been suffering from this type of population problem. Low fertility and low growth rate, rates far below the replacement or required growth rate of population, have plagued these countries for decades. But this population problem was not caused by "population control", it was the inevitable result of higher development (or greater security of

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life). Prosperity leads to lower fertility, so all that the poorer countries required was to prosper, which the West never wanted, and the population would have come down in any case (see Bangladesh below). But by forcing the population control, the academics, the governments and some private institutions in West have merely added to the distress of the new and poor countries, created some additional problems which are today far more serious in countries like in India and in China, where they have turned into horrific situations.

China has today developed to become the second largest economy challenging the US economy, India is vying to do the same but they both continue to have populations in excess of one billion. So whatever population control they resorted to did not affect their growth one way or the other in terms of macro-economics, they attained economic growth in spite of the vast populations! But the induced population control programme has affected the population structure in a major way. In India, for instance, the “Total fertility rate (TFR) has fallen below two children per woman, (below the replacement rate), in 12 states, and has reached replacement levels in 9 other states”¹. The TFR for India as a whole is still at 2.3, in the rural areas it was 2.5 but in the urban, it is much lower at 1.8, well below the replacement rate. In general the fertility is declining rapidly all over, including among the poor and illiterate². However, since the population is still very large the negative impact, as in Singapore or Japan, is yet to be felt or to create much imbalance in the labour force.

However, the “unnecessary” population control has contributed to some uncalled for and irreversible problems. Largely due to the social norm of “son-preference”, population control has led to more sons being born altering the sex ratio drastically in many areas. By the time the government realized this and banned learning about the sex of the child before birth the damage was done and the process continues to be practiced discreetly in the rural areas even now, affecting the future population structure in a big way. By the latest count there are 37 million more men in India while the number of female babies continue to plummet. Washington post adds that “The imbalance creates a surplus of bachelors and exacerbates human trafficking, both for brides and, possibly, prostitution”³. Harassment of girls and the stories of rape have become a daily affair. Delhi is often called the “rape capital” of India. But the problem goes far beyond. In a social context where there are fewer girls, men find fewer brides to the extent that in some villages two brothers are forced to get married to one woman!

This excess of men in the population is very likely to affect the economy of India by distorting the labour market, property values and even basic consumptions. This may also get to affect the world economy at large. The Washington Post continues, “consequences are not confined to China (see below) and India, but reach deep into their Asian neighbors and distort the economies of Europe and the Americas, as well. Barely recognized, the ramifications of too many men are only starting to come into sight”⁴.

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In China, where the government followed the “population control”, especially the “one-child” family, very fiercely, including forcing abortions and sterilization on millions. The government claims that its one child policy has prevented some 400 million births! Similarly “An estimated 210,000 girls may have “gone missing” due to China’s “Later, Longer, Fewer” campaign, a birth planning policy predating the One Child Policy”2. The resulting situation has turned to extremes of what may go wrong if one tempers with the natural process.

First and the most obvious problem is with that single child in the family. As the economy improved a lot of attention was given to the child, including feeding it a bit too much. As a result a large percentage of these children are today obese. Most of these single children are reaching the work force now but as the traditional social security system in China dictates, the child has to take care of the elderly parents, particularly if they are retired. Also due to better health care being available the grand parents may also be living so that the brave son now has to take responsibility of at least four other persons, perhaps six. The situation worsens when he gets married and remains the only bread earner. The wife, who is also similarly single, is likely to bring the added maintenance burden of her parents and grandparents too. The result is that the single son, now a super hero, has over nine people to care for! Even in a fast developing economy like China one can only dream of finding such a well-paying job, so everyone suffers.

This, unfortunately, is the story of the “lucky” child. Others are not so fortunate. A large number, in millions actually, of children have to forego a normal childhood, particularly in the rural areas, simply because their parents have to work far away in a city and they (the single child) get to meet the parents only on special holidays for example the New Year. They grow up with their aging grandparents, deprived of the normal love and care of the parents or siblings.

In a far greater way than in India, the “son-preference” played havoc in China with mindboggling disaster no one could have predicted only a generation ago. Even the Washington Post laments, “Out of China’s population of 1.4 billion, there are nearly 34 million more males than females — the equivalent of almost the entire population of California, or Poland, who will never find wives and only rarely have sex”3. That is to put it very mildly. The reality of the situation is heart wrenching. In the prospect of living out a life of loneliness, often ridicule from the rest of the society, most of these men give in to their fate and lead a very lonely and secluded life.

One has to be very lucky or very rich to get married in today’s China. To be in the marriage market a young man must be able to convince the would-be-bride of his affluence, often by buying at least two houses, and hence the boom in real estate business, there are more buyers for the second and the third apartment than the first today. In spite of that, the marriage is never assured. Often the only recourse for the, again, lucky and rich ones, is to seek a bride abroad, in the poorer countries like

1 http://en.people.cn/90882/7629166.html
2 https://www.cgdev.org/article/new-study-finds-china-population-control-policies-one-child-policy-was-responsible-200000
Vietnam, Philippines or even Indonesia, to “buy” a bride of a totally different social and cultural background, who do not even speak the language. Stealing a bride, particularly in the rural areas, is becoming very common and human trafficking is getting rampant. The whole village often cooperates to hide the stolen bride. But the only option for many of these millions of unlucky bachelors, after a hard days of work, is to go back home to their beloved “sex doll”!

Tell that to the 34 million Poles and the Californians!

No, tell it to the Ford Foundation and the Rockefeller Foundation, the UNO and the US Government, who forced the population control on the unsuspecting “new” and the poor countries with false narratives and misplaced data. But, appallingly, they still find it convenient to blame the poor countries who so foolishly followed their “advice”. And, it is all too easy to blame the Chinese commies, after all they were stupid enough to accept those lies. The Washington Post says it clearly, “China’s official one-child policy, in effect from 1979 to 2015, was a huge factor in creating this imbalance, as millions of couples were determined that their child should be a son”.

What Singapore, Japan, India and China are facing today is the real “Population Problem”!

So, country after country, in a bid to develop, to become modern like the West, with childlike innocence (stupidity, in reality) followed the nonsense dished out by the West and its academics about the “population problem”. No one told them that their society and cultural norms may be a detriment. Nor did anyone tell them that prosperity and consequential development in health care would inevitably bring the populations down in any case. Nor were they told that the population growth rates could go below the replacement rates someday creating all sorts of problems, even though some European countries were already facing the problem of population shortage for decades. Today, some of these Western academics are elated that due to the success of population control the world population may never reach the currently predicted high of 11 billion.

Historically, large populations never destroyed any society, population shortage did. Large populations, or population pressure will invariably find a way out, most likely through migration, but may also lead to conquest of other lands. The history of the human kind has been one of migration. But conquest of other lands is always on the cards. Over the last five centuries, as the European population increased, they first conquered other lands and then sent its excess population to these other continents and making the continents their “own” both in name and in substance. The Europeans at the same time purposively blocked the same for Asia and Africa by killing and destroying the populations there (they did move a few million Africans to the other continents but as slaves to do their bidding and it has not turned out for the good of anyone involved but the Europeans).

Killing of millions in the “new world”, the Americas and Australia, is a well-documented fact but the same was also true of the colonial Asia and Africa as well (see below). The killing is equally true today in the “new” and “poor” countries, killing them in the womb (China prevented 400 million births!) through

dishing out false narrative and false statistics, the lie called the “population problem”, so that migration by the Asians and Africans can be restricted to the minimum, preferably, to zero. The other nightmarish possibility, the conquest of Europe and its colonies, the Americas and Australia, invading the USA, as Mr. Trump puts it, by the Asians and Africans never ever arising. The real reasons for population control!

Bangladesh never faced a “population problem” as defined by the Western academics. It always had a large population because of its fertile soil and the economy in general was always robust enough to support a large population through the millennia. What it faced at its independence from the Brits was the “resource problem”, it no longer had the economy that supported a large population. That economy was looted and destroyed by the Brits, who also depopulated the country. Bengal faced its worst famine within ten years of its occupation by the East India Company, in 1776. More than one third of the population or an estimated 10 million died! Warren Hastings, the then Governor, noted that the whole country from end to end looked white, whitened by the millions of skeletons lying around in barren fields! (Yet, the East India Company succeeded in collecting more than double the tax of the previous year!). Many later famines followed, killing more millions.

Similarly the Brits also destroyed the economy by looting and making it subservient to the economy in the UK. Bengal, mostly present day Bangladesh, based in and around Dhaka, was the richest of the countries, generating half of the Sub-continent’s GDP or about 12-13 percent1 of world GDP on the eve of British conquest2. (For a comparison, Britain then generated only about 1 percent of the world GDP.) The current GDP of the USA is about 15 percent of the world GDP, so Bangladesh in its precolonial days was close to what the USA is in the world economy now and that was true of the Bangladesh economy for millennia past. The bay south of Bangladesh was (and still is) called the “Bay of Bengal” for a reason! How many countries have seas named after it? Today Bangladesh generates barely 0.3% of the world GDP. For much of the past 40 years it averaged about 0.12%3 and when the Brits left in 1947 it must have been far lower.

The city of Dhaka in the 18th century, with a circumference of 40 miles4, a huge city by even today’s standard, was said to have a population of nearly one million, definitely one of the largest if not the largest city in the world at the time. Murshidabad, the then newly built capital of Bengal, much smaller than Dhaka, was noted by Robert Clive, who conquered Bengal for the Brits, to be larger and far grander than London. Kolkata was the city newly set up by the Brits and by their lackeys, the Zamindars (landlords who, thanks to the Brits, effectively owned all the land of Bangladesh) to suck Bengal dry. While Kolkata grew and prospered at the expense of Dhaka and Murshidabad to become the second largest city in the “Empire”, and the world for a time, only after London, it destroyed Dhaka and Murshidabad, turning them into varitable jungles in the process. So that, by the end of the near 200 year British exploitation Dhaka was barely surviving with 20 to 30 thousand inhabitants, even grand

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1 Wikipedia
2 Wikipedia
3 https://www.theglobaleconomy.com/Bangladesh/gdp_share/
4 Wikipedia
buildings had been claimed by nature, and Bangladesh had transformed from the richest to the poorest country in the world!

Bangladesh was left so poor that in the 1950s just after the Brits left, this land of the fabulous plenty was not able to feed its own population of about 45 million. It required food aid from abroad to the tune of 20 percent to feed its people for the next three to four decades while all the economic indicators put Bangladesh as the “poorest of the poor”. Yet, today, in an independent Bangladesh, within the same land area as of the past, it can feed a population of more than 160 million people or 3.5 times the population of the 1950s. Bangladesh again produces enough to feed its people. So, the fact remains that it was always resourceful enough to feed its population, over thousands of years. Therefore, Bangladesh never had a “population problem” as defined by the Western scholars, nor did it have any resource problem until the Brits completely destroyed its economic structure and plundered it thoroughly for about 200 years.

But, unfortunately, Bangladesh was no exception to fall for the lure of prosperity through “population control” and still continues in the same direction. Indeed, Bangladesh is considered to be one of the exemplary successes in “population control” and much of its achievement in “development” is often attributed to the effective execution of population control programmes. Due largely to the various conditional “aid” programmes from the Western countries, particularly the USA, population control, dubbed as “family planning” got intertwined with most activities of the government and by the 1970s, family planning was the largest government department in terms of the people employed. From door to door services like advising the men and women on family planning to distributing free condoms and employing religious and community leaders to voice their support, a sustained campaign has been carried on through the past seven decades. Fortunately, however, these were far less aggressive than in Singapore, China or even India, the “family planning” was largely optional and left as a personal matter, though there were few occasional reports of coercion by the family planning workers and volunteers, the role of the government remained primarily to raise awareness and to provide the necessary support.

When I was born in the later part of the 1940s, the life expectancy in Bangladesh (the political area) was barely 26 years. I was the first of the eleven children born to my parents, seven of us survived to adult age, three died in their early childhood and one was still-born. Of the seven surviving ones the first to expire is my immediate younger brother, who passed away last year at the age of 71. Indeed, 71+ is the current life expectancy.

In my cohort, ten or twelve children per family were all too common. I remember one of our neighbours during my childhood had 11 boys in the family, we called it a football team, and it was rumored that they were still trying for a girl child. By the time my cohort began their own reproductive cycle most of my cohort, including my siblings, and nearly everyone I know, including members of the working class, ended up with two children, some with just one child and a significant number with no children at all. The official statistics reflect this very clearly, “Over the last 50
years, fertility rate of Bangladesh was declining at a moderating rate to shrink from 6.95 children per woman in 1970 to 2.01 children per woman in 2019\textsuperscript{1}. The picture seems to be true of the middle class in general, the lower and upper classes may vary somewhat with larger number of children, but rarely exceeding four.

Again, fortunately, Bangladesh did not resort to the “one child” family nor was it plagued by “son-preference” in the same order as China or India. The sex ratio, therefore, is more balanced though somewhat in favour of males but not to any great extent to off-set the male-female distribution. Also, since most migrant workers are males, this further helps to balance the ratio. On the other hand, more than half of my cohort seem to have reached their seventies, yet, the 65+ population is still less than 5%. With over one-third below 15 years (34.3%)\textsuperscript{2}, the economically active population continues to grow for now. Even after a net out-migration of nearly half a million per year and the growth rate at 1.1 percent\textsuperscript{3}, the Bangladeshi population statistics are considered very good, at least for now.

The population reduction programme in Bangladesh attained such successes purely through voluntary and personal choices. The government programmes did raise the awareness as was also true of a number of other social issues. The balanced change in the demographic factors was largely attained through voluntary participation and in the same manner as with other social issues, because of increased awareness and other social developments. Immunization, safe drinking water, literacy, women’s education, women empowerment all developed simultaneously and each facilitated the growth in the other sectors. \textit{People choose to have smaller families as it appeared more convenient}, no one forced anyone I know, or me, to limit the family.

Bangladesh did a better job in all areas of social variables over the last decades in spite of the lack of growth in its economy, especially in comparison to the rest of South Asia. As Nobel Laureate Amartya Sen notes, “Bangladesh’s social indicators such as gender equity, women’s empowerment, mortality rate, life expectancy, immunization etc. are remarkably better than India” and are the highest in the region. And that happened despite the lack of similar growth in its economy (GDP). “In 1990 India’s GDP was 50% higher than Bangladesh but by 2015 it was 100% higher\textsuperscript{4}.”

So that the population control or “family planning” programme did not propel Bangladesh to the height of economic development. In terms of development, particularly of the economy, Bangladesh is nowhere even close to any of the Asian developed countries, or India, yet it has attained much of the demographic and social developments paralleling these countries. So, population control did little, if anything, to affect its economic growth or social development. The current population structure was possible because of the other and prior social developments. Also, the social developments attained such great success despite the lack of economic development. It is only recently that certain amount of

\begin{footnotesize}
\begin{itemize}
\item[1] https://knoema.com/atlas/Bangladesh/topics/Demographics/Fertility/Fertility-rate
\item[2] https://countrymeters.info/en/Bangladesh
\item[3] https://data.worldbank.org/indicator/SP.POP.GROW?locations=BD
\end{itemize}
\end{footnotesize}
growth is noted in the economy and much of that follows and was permitted by the prior and overall social developments which had little to do with population control.

The best case in point is the phenomenal success of the garment industry, which caters for over 80% of the export earnings of the country and is second only to China, was made possible simply because of the huge participation of the women in the labour force, women getting out of the house from the rural areas and migrating to the urban centers, often alone, still not possible in much of South Asia. Also, to be noted is the remarkable success of the poverty reduction programmes, which, particularly under the auspices of the NGOs, was squarely directed to the women, who proved to be far more effective than men. Without the achievements of the social developments like, women empowerment, women education, women participation in the labour force, and gender parity in general, neither of these economic developments would have been possible. “Population control” had nothing to do with these.

Indeed, lowering of population followed in the wake of those other social developments, so that even my house help, who migrated to the city all by herself in search of a job twenty years ago, also has two children, both girls and going to high school now.

And, contrary to what the population control advocates would have you believe, for Bangladesh that large population has also turned out to be a blessing for the country. It has translated into a huge out migration of the labour force, as was also true of all history and of Europe too for centuries on, to earn and send the money back to the country. From 1976 to 2018, a total of 12,199,124 Bangladeshis have migrated overseas for employment¹. For quite a while the remittance sent home by this labour force was the major source of foreign earnings for the country until exports from the garment sector surpassed it only recently. Such remittance has significantly altered the life of millions of families in the rural areas and continue to play a crucial role in the rural economy and the economy of the whole country. So that even under so much induced poverty, large population of Bangladesh was not a “problem” rather turned out to be an asset.

Recent figures show a 7%+ growth rate of the economy over the last few years and it is likely to grow even faster (prediction for 2019-2020 is 8%+). Given that this growth is sustained over the next decade or so, Bangladesh economy will be among the top 25 or even top 20 countries. The current demographic structure will likely continue to support that growth further. But the balance is too fine for comfort. The total fertility rate, barely at the replacement rate, will most likely continue to go down and judging from the examples of Japan, Singapore as well as Europe, once it goes down it cannot be raised even with incentives. Similarly the growth rate at only 1 percent is also precariously balanced and will likely follow the fate of the developed countries, soon enter a phase of negative growth of population. Sex ratio and the still large youth population to replenish the labour force may avert any immediate crisis and give a picture of false security but the growing number of senior population (65+ age) may turn into a liability

in the very near future, as has happened with Japan and the other developed countries across the world. There will not be enough young people to bear the load of the large and ever growing number of seniors.

The senior population to follow my cohort will be increasingly larger and live much longer, while the youth, with lower than replacement fertility, will grow smaller and smaller and soon fail to sustain the burden of shouldering the load of the old. More importantly they may not be enough in number to produce the goods in a growing economy required to support the whole population. There is also a clear preference among the young to migrate for better opportunities abroad. Given the current rate of total net out migration (of -3.04 per thousand)\(^1\), which may off-set any gains in the labour force, the future may be even bleaker. The controlled migration often allowed by some European countries has not worked to replenish their labour force. For Bangladesh, with an economy just on the rise, the lack of growth of the labour force may spell disaster and put the economy on a tail-spin.

All these may force Bangladesh into a “population problem” in the sense I have described above and is currently facing Japan, Singapore or China. Holding on to its strict immigration laws, Japan is seeking technological solution and given their ingenuity they may even succeed but the population will not grow back, it will only fall further as the seniors eventually die off. Singapore with its small population has fewer options, it has failed to excite the young to marry and produce enough children and may have to either follow Japan for a robotic revolution or allow fresh migration which may not be so advisable for a small city state, it may not be able to hold on to its economic growth. China and India with very large populations may be able to deal with their current crises as there is still a huge labour force waiting to get in the labour market. But Bangladesh does not have the same luxury. Population control or not, we have lowered our population to a fine balance today which will only head towards a lessening of the population and unless we take measures to correct these, basically to increase the population, which may not be easy even after incentives, with a still poor albeit growing economy, we are only courting disaster and heading towards a “population problem” in earnest.

Nazrul Islam

Clamouring for Autonomy: Political Corporatism against Dissent and International Nongovernmental Organisations in Post 2000 Zimbabwe

\(^1\) https://knoema.com/atlas/Bangladesh/topics/Demographics/Fertility/Fertility-rate
Abstract: Evidence shows that the state in Zimbabwe has upheld the use of political corporatism against dissent since the 1980s. At the beginning of the new millennium, the state in Zimbabwe merely saw/perceived/considered the African continent’s anti-dissent and anti-international nongovernmental organisation stance as an ideological clash. Several African states have been criticised for excessive use of repression following the failure of opposition groups to gain political power. This paper argues that political corporatism is common in Africa. It also argues that post 2000 state in Zimbabwe is not an exception under the circumstances in applying repression on political dissent and on international nongovernmental organisations. The paper uses extant literature from the 1980s when writers began to analyse the concept political corporatism within the African context and argued that it is a product of colonialism. Post 2000 literature is used to bring forth the doubled-edged uses of international nongovernmental organisations (INGOs) by the West for political and soft power interests. The paper provides a non-neoliberal grounded argument for the rationale for political corporatism/repression against political dissent and INGOs in post 2000 Zimbabwe. The case of Zimbabwe is rarely interrogated from this perspective.

Keywords: dissent, imperialism, international nongovernmental organisation, Neoliberalism, repression, soft power

Introduction
The use of political corporatism against dissent in general and international nongovernmental organisations in particular in post 2000 Zimbabwe did not deviate from its use in Africa in general and its own since 1980. Like anywhere in the African continent, the post 2000 state in Zimbabwe used political corporatism as governmentality against neoliberal ideology. Critics have argued that there is a need to understand political corporatism in the African context. Hence, the aim of this paper is to demonstrate that the state in post 2000 Zimbabwe was not unique in its rationale for applying political corporatism against politically dissenting groups and international nongovernmental organisations within its territory. To achieve this objective, this article is guided by the following main question: Was the state in post 2000 Zimbabwe unique in applying political corporatism towards international nongovernmental organisations (INGOs) and those of alternative views?

Background of the study
The state in post 2000 Zimbabwe has arguably manifested features of authoritarianism such as the brutal use of state machinery, violence and arms to repress other political parties. It has been criticised

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the Western media, pro neo liberal democracy formations in Zimbabwe for failure to defend property rights, the creation of electoral irregularities, the refusal to transfer power to the winning opposition party, the gross violation of human rights and the failure to maintain peace, among others. This has shaped the interaction between the post 2000 Zimbabwean state and the international nongovernmental organisations (INGOs). Typical of an authoritarian state, the post 2000 Zimbabwe’s formal and informal rules did not allow for the prevalence of democratic values (Brooker 2009:233–269). Most critical is that it exerted a tight grip on political activity to the point that society lost the ability to resolve or challenge the ruling ZANU PF decisively. This led to the creation of a nation of gullible citizens who accepted a national ideology that was biased in favour of those wielding power (Kamrava 1998:64). Notably the post 2000 state in Zimbabwe maintained a strong control of all the arms of the state and ensured that all practices that may threaten its grip to power were heavily guarded against by both practice and decision in favour of the state (Magaloni 2010:753). Examples of these were the courts, electoral commissions and systems, the judiciary and the military. Such practices were extended towards the use of political intelligence in government departments, parastatal organisations, trade unions and NGOs for monitoring where the government systematically repressed and rooted out any efforts expressed to challenge the state. At this stage, the post 2000 state in Zimbabwe had to contain the encroachment by neoliberalism that views INGOs as within the broader civil society.

Grounded on Anglo-American liberal-democratic theory, neoliberalism centralises political participation, rights, and the rule of law and democratic participation freedom of speech, of the press, of assembly, and of worship, and in the protection of minority rights under majority rule (Veltmeyer, 2008:229). This understanding strongly underlies the manner in which INGOs approach authoritarian states. INGOs place themselves in a space between the individual citizen and the state, but with the aim of exerting pressure on an authoritarian state to perform its responsibilities towards its citizens more adequately and promptly. Their position emerges from the liberal position towards civil society that sees it (civil society) as a challenge to bad governance and violation of human rights amongst others (Kamat 2000; Veltmeyer 2008). This paper is based in this context. The paper argues that the manner in which authoritarian state in post 2000 Zimbabwe dealt with INGOs did not deviate from how Africa has been dealing with political dissent and INGOs. Africa is aware that INGOs pay lip service to fair elections. In this instance, the Western nations and INGOs are behind African democratic parties in their international projects aimed at permanently subduing ideologies, influence and economic ties from the nations from the East. INGOs have been known to support whichever political party is in power at the time in order to survive hence Daniel Arap Moi, former president of Kenya said:

“Politics is not like football, deserving a level playing field. Here, you try that, and you will be roasted”- (Marquez 2016:3).

Methodology
This paper is based on a review extant literature on views by prominent writers on political corporatism in Africa particularly in the 1980s, 1990s to capture the deep anti – democracy justification in Africa that
has dovetailed to the present. The review of the literature gives credence to post 2000 views for the application of political repression/political corporatism on neo-liberal influenced political dissent and its agents namely international nongovernmental organisations (INGOs) in Zimbabwe. Most recent literature was accessed to argue that of late INGOs have been perceived as disguised agents and instruments of Western nations` soft power in Zimbabwe as elsewhere particularly in Eastern Europe and the Middle East. Without resorting to any use of field narrative data, the paper demonstrates that the post 2000 state in Zimbabwe`s rationale for using repressive governmentality was within its quest for defending its autonomy against neo liberal forces. Such classification of literature used justifies the use of literature on political corporatism/repression and authoritarianism from Schmitter`s 1974 coinage of the concept corporatism. Nyang`oro`s, Shaw`s and Wiarda`s analyses of the origins and development of political corporatism in Africa in the 1980s; Kamrava`s and others critiques on authoritarianism in the 1990s; Davenport`s wide researches on repression in the 1990s to post 2000 literature.

Conceptual Framework

 Political Corporatism

Political corporatism is a top-down approach and manifest through typical features of authoritarianism (Howell 2003, Dore 1990, Schmitter 1974, Alpermann 2010 and Pinto 2012). It is a control strategy exercised by the state on society and any organisation in its territory (Howell 2003). It allows the state to exercise more power and decisions in the formation and accreditation of representative organisations (Dore 1990). It can be argued that political corporatism upholds an authoritarian bias by nature as the state imposes its interests on societal organisations because of its top – down approach (Schmitter 1974). Other apparent traits of authoritarian bias typical of political corporatism in favour of the state manifest in the form of tight regulation of organisations, partisan organisations with limited autonomy as well as constricted in the extent they may express the interests of those they represent (Howell 2003). Within this realm, political corporatism is viewed as synonymous with political repression to refer to all state directed actions against persons, organisations and any forces viewed as posing fundamental threat to the existing power relations and key state policies on the basis of their perceived political disposition (Davenport 1995). Unlike societal corporatism where participant organisations have a high degree of autonomy, political corporatism is when the state creates and controls interest organisations (Jessop 1990; Schmitter 1974). Political corporatism provides the state space to exercise authoritarianism and operate as a tight institution with a focus on unity, discipline and cooperation of all social groups (Unger and Chan 1995). This then implies that in using political corporatism, the state is at liberty to ensure only those organisations that are compliant with its policies and mandate may be free to operate (Alpermann 2010; Pinto 2012). Davenport`s (1995) has commonly used the term to refer to repression, repressive behaviour and negative sanctions in the hands of the state. Political corporatism, under the circumstances, acts as a double-edged sword, on one hand, it provides the state with the political latitude and unencumbered scope to shape the political contours
and the nature of the relationships with INGOs, on the other hand, it provides the convenient tool for repression.

**Political corporatism in the African context**

Proponents of political corporatism have raised concern over the application and implications of the concept mostly studied within the lenses of Western Europe, Latin America, Iberian and Anglo-American social sciences being generalised across the world (Nyang`oro 1983, Shaw 1982; Wiarda 1981). It may be argued that it is appropriate to understand the concept in terms of the dominant political-cultural, economic, historical and geographical space in which it is being scrutinised because it is specific thereto (Nyang`oro 1983; Wiarda 1981). Nyang`oro (1983) and Wiarda (1981) argue that the application of political corporatism in Africa needs specifically African lenses to avoid being entangled in a maze of definitions that are unrelated to Africa`s situation. Political corporatism as a concept may be conceptualised within the context of developing nations with a clear recognition that Africa is tied to the colonially imposed capitalist mode of development that internally compounds the prevailing relations among peripheral nations and the unavoidable influences of the global capitalist system (Shaw 1982). This invokes the need to study political corporatism in Africa as a product of the political and economic development realities characterised by stagnation and minimal to zero industrial production since the 1960s or uhuru (Nyang`oro 1987). Critiques argue that the increase in oil mining due to technology in countries such as Nigeria, Gabon, Algeria, Libya and Congo did not bring any significant improvements in the structure of production in their economies (Nyang`oro 1987). There appears a strong link between post-colonial African political leadership and the prevalence of political corporatism in what emerged as organic statism typical in Europe and Latin America. Organic statism may be conceived as a model of politics that integrates all elements of society into one unit under a powerful authoritative and interventionist leadership of the state (Maclntyre 1994). Thus political corporatism fits in well with an organic state in that only those interest groups created and partisan to the state may be allowed to operate in the country. In both organic statism and authoritarian regimes corporatism is used as an instrument of eliminating opposition groups or political parties thereby leaving only partisan groups to interact with the state in specified means (Levy 2006; One can identify that the state recognises those interest groups that remain organised in a vertical functional hierarchy and reporting to state appointed leaders. In the context of authoritarian developing nations, it is observable that political corporatism is exclusionary of civil society with tighter control and repression. It may also be inclusionary with the state remaining undoubtedly dominant but allowing more scope for societal input via state approved associations (Dorman 2001). The failure of the post-colonial state to deliver on a majority expectation led to the adoption of both consent building and coercion tactics for survival. In the process, building and maintaining hegemony such that in the end, in a Gramscian sense, the ruling class’s dominance through consent and consensus building fast transformed into “coercion and gradually, direct domination became the rule of the day (Kebede, 2005). Evidence shows that political corporatism is dominant in Africa`s state–centric systems where regimes, bureaucracies and parties, presidents and officers have been salient in running states. This is compounded by the governance challenges brought about by Global Financial Institutions` (GFI) structural adjustments and liberal
democracy (Nyang’oro and Shaw 1989). One may note that structural adjustments inevitably lead to devaluation, deregulation and privatisation that erode the dominance of the state by allowing new alliances around private capital leaving the state vulnerable to domestic opposition (Shaw and Nyang’oro 1989). In such cases, political corporatism emerges as a tool for restoring both socio-economic and leadership security. Such background literature highlights the African state and its governance apparatus that is used to set the parameters within which political corporatism directed at political dissent and international nongovernmental organisations (INGOs). The paper uses this literature to analyse the Zimbabwean state and its relationship with INGOs

The African state’s anti-dissent and anti-INGO stance
As a pragmatic viable option to achieve the end of colonialism, the West started promoting its culture of democracy as the ideal culture (Owalabi, 1994). Hence, many post-colonial African countries were compromised into adopting models of governance whose operational parameters were prescribed by their former colonial masters (Oyekan, 2009). The states that were formed in Africa after decolonisation were mostly shaped by a continued though indirect influence of European powers that came to be called neo-colonialism – a term coined by Kwame Nkrumah (Davidson, 1994). In its manifest form, neo-colonialism inherited the structures of colonial despotism (Mamdani, 1996) that resulted in the newly independent African states as dysfunctional colonial artefacts. In many African states, this led to a reconfiguration and Africanisation of the state structures. One of the most notable characteristics of the post-colonial African state was, however, the continued display of totalitarian propensities of the state, a display that had been equally pervasive during the colonial era. African scholars such as Ake (1996) describe the situation as “disappointing” that violence dovetailed into the present in African governance. The continued use of violence to institute power did not, however, come as a surprise since most, if not all, of the African states had no interest in advocating not just political transformation but also economic transformation, whose economic benefits would be accessible to all and sundry (Ake, 1996). The insinuation that those other bureaucracies particularly Western are more inherently attuned to the needs of their nations than African ones is rather troubling. Western bureaucracies are just as guilty in terms of insensitivity to their people’s needs. For example, how does one justify projects like National Aeronautics and Space Administration (NASA) in a society where rampant unemployment, homelessness, very low literacy levels, poor sanitation and hygiene, hunger and war are juxtaposed with staggering wealth in the hands of a miniscule percentage of the population? Gaining political power and independence meant the reorganisation of the state through a reformatory process aimed solely at unifying and centralising the nation.

The post-colonial political transformation in African states was, thus, devoid of economic content and did not take the economic interest of the ordinary citizens into account (Mamdani, 1996). African states allowed for the presence of political parties and social movements to operate under specified conditions requiring registration, being apolitical and declaring the nature of their activities (Mukandala 2001). The separation of political parties and social movements noted in the post independent era and the dictated requirements remained a common practice in African states. As will be explained in this paper this
practice became more effective in the control of civil society including INGOs in Africa. President Mugabe’s view of INGOs and the MDC political party was a well-informed strategy that had long been practiced as a way of neutralising social movements as well as weakening civil society in general. Such a strategy can be criticised for the development of personal rule, one-party authoritarianism, the drafting of constitutions typical of colonial regimes with a tightened bureaucratic control of all state apparatus typical of colonial rule (Mukandala 2001). The quest to neutralise the opposition may morph into an obsession with it protruding into repression backed by state machinery blinded by internalised insecurities.

The early African states went further to ban social movements and civil society, detain and or even assassinate their leaders, criminalise them and their activities, co-opt some social movements to ensure one-party rule prevailed (Mukandala 2001). Mukandala should note that US has an arguably unparalleled history of political repression – targeted assassinations, detention (without trial) of political opponents (e.g. Black Panther), Occupy Movement, War Veteran groups, anti-war activists and anti-nuclear proliferation activists (Boykoff 2008). Southern African ruling parties are still perpetuating the same practices. The formation of Party Youth league from which militias are recruited, Women’s league and War veterans association in the case of Zimbabwe are a good example. For ZANU PF these structures are handy when the party is experiencing challenges. These are run in a manner that they affront INGOs and any element of civil society, any rival political party, monitor social movements, and most importantly make it “easy for the single party and the great leader to emerge” (Mukandala 2001). The MDC and INGOs were matters of concern to the Zimbabwean state as each epitomised the liberal democracy and civil society that African leaders sought to keep under control all the way from uhuru (independence). The logic here is that the Zimbabwean state was fully aware of the threat INGOs/civil organisations posed through fighting for constitutional change as in Kenya; for democratic changes in Algeria; and the extraction of oil between Nigeria’s state and Shell in the Delta (Mukandala 2001). One can challenge Mukandala as one not recognising the hostile agendas of Western-based groups that sponsor ‘opposition groups’ in Africa like philanthropist George Soros’ sponsorship of African opposition groups invariably anti-government, Carnegie Foundation’s training of ‘civil society’ groups and dispatching them to Africa as religious leaders and lawyers. None of such activities are tolerated in any Western country. The state in Zimbabwe has not diverted from how most African states seem to view the opposition political parties and INGOs (civil society). The literature on how African states and others have legislated against NGOs is consistent with the continent’s practice let alone the world. Sub-Saharan Africa as a whole has imposed prohibitions and restrictions covering registration, nature of operations, monitoring, specific activities and funding (Global Trends in NGO Law 2011). The reactions and responses by African governments in taking such measures could be considered legitimate for purposes of self-preservation and a quest for autonomy given the enormity of the onslaught from outside forces.
Another factor in line with President Mugabe’s Africanist and Third World reaction to INGOs in Zimbabwe was that he saw them and liberal democracy as part of “the international capitalism and ideologically presented as globalisation [to restructure international capitalism in Zimbabwe in the interest of the USA, UK, WB and IMF]” (Mukandala 2001). Mugabe’s understanding of INGOs does not ignore how these institutions are part of and used by the USA and Central Intelligence Agency (CIA) to replace national governments which are resilient and determined to defend their sovereignty, resources and interests of their citizens. In this instance, the USA and CIA seek to replace such governments by obedient ones that will execute the USA agenda under the pretext of neoliberal democracy (Watzal 2017). Contrary to their generally accepted roles, INGOs such as developmental, humanitarian, environmental work it can be argued that they were created for the sole purposes of executing CIA-American political goals in other nations privately (Watzal (2017). Further, contrary to the innocence INGOs artificially project their international record displays how they are de facto arms of Western intelligence agencies and governments playing central roles in destabilising nations (Draitser 2015). The state in post 2000 Zimbabwe opted to stand its ground against what it foresaw as forces meant to terminate its rule and support a neoliberal puppet government in the form of the Movement for Democratic Change (MDC).

The link between INGOs and the quest for democracy in Zimbabwe may be understood within the scope of the West’s reaction to the end of colonialism and a realisation that the need for resources from the Third World countries should prevail. The West opted “to step its cultural imperialism and promote its democratic culture as the ideal culture” (Oyekan 2009). Such Afro-centric thinking leaves one to conclude that Mugabe’s repugnance of INGOs and democracy in Zimbabwe as vehicles for unending exploitation is valid. In reality, no critic in their common sense can argue that Western NGOs are innocent of any political motives. When INGOs shift from philanthropy and doing good to confront states, they place themselves in invidious political confrontations with them. Under such circumstances, it is common cause that the responses by such states to protect themselves are reasonable, justifiable, defensible and just within the understanding that the state is a legal being with a right to its sovereignty.

In many African countries post-independence leaders seemed to enjoy almost absolute and unfettered rule over their subjects as they exercised exclusive monopoly over government structures and tight political control by retaining not only the command nature of the colonial state but also its ultimate reliance on brutal force. Additionally, this was accompanied by highly exploitative practices that, largely, paved the way for the predatory character of many post-colonial African regimes, and the prevailing culture of impunity (Joseph, 1999). In a similar vein, African leaders grossly abused their powers by monopolising state resources, government bureaucracies and parastatals involved in the buying and marketing of agricultural and mineral commodities, to mention but a few (Gordon and Gordon, 2001). Some incorporated and co-opted civil society into party–structured ancillary organisations to serve as mechanisms of surveillance and control devoid of participation and voice (Young, 1994).
The foregoing discussion suggests that many, if not all post-colonial African states regarded liberal democracy as a Western ideology whose goal was nothing other than the promotion of capitalism in Africa (Sachikonye, 1995). This view is attested to by the fact that the adoption of liberal democracy as a precondition for aid and development loans to finance locally pressing demands in their respective countries (Bayart, 1999). This situation signaled the emergence and evolvement of a new political model that was interpreted as one most desirable in countries where notions of democracy were once unheard-of. It is notable, however, that despite the seeming promotion of democracy in the Third World by the West, this is done in ways that promote and serve the West’s own interests (Hipler, 1995). It is in this light that from an African perspective, the general pattern evolving is that Western democracy has thus far not emerged as the ideal for Africa given the numerous challenges that have been attendant in the evolvement of democracy in Africa (Tar, 2010). The choice of Western models did not go well with African people who saw the extension of modes of exploitation in form of neo-colonialism. What has made democracy a dirty word to most African states is the fact that they discovered that the West’s clamour for ‘democracy’ in Africa is disingenuous. It turns out that democracy is a euphemism for Western interests across the world through use of soft power. Of primary importance is the African state’s awareness of the use of soft power being the ability of developed nations to persuade other and or manipulate events in one country without use of force or coercion in order to achieve politically desirable outcomes. In this practice, developed nations have remained in the background and ensuring that it becomes heavily populated by civil society and INGOs (Draitser 2015). In order for powerful nations, individuals and institutions to execute their patrons’ agenda in other countries, they fund INGOs under the guise of democracy, promotion development, and human rights. A case in point is Hong Kong where soft power was used in using prominent academics and organisations such as Occupy Central Movement funded by the National Endowment for Democracy (NED) and the US government who have been pushing for democracy in that part of China (Draitser 2015).

Literature shows that the majority if not all of the post-independence leaders in Africa were concerned with ensuring that power and domination were concentrated and centralised by the state. By taking over the administrative systems of the colonial state, they acquired the state’s policing, military and security forces that allowed them to intimidate and eliminate the growing number of opposition forces. In this manner, the co-option of various autonomous organisations, the banning of contesting political parties and the legitimising of the ruling party as the only one within a new single-party state became common features of many African states.

Notably, for a considerable length of time 1950s – 1980, Western powers demonstrated a posture of indifference towards human rights issues and democracy in Africa. Arguably, this was done not only to avoid jeopardising the economic and strategic interests that the West had, but also to facilitate its obsessive search for allies against ‘communism’ (Ake, 1991). It was at the demise of the Cold War when these concerns fell away that the West found itself free to bring its African policies into greater harmony with its perverted notion of democracy.

Thus, the former colonial masters, anxious for advantage with the new leaders, embraced the idea of partnership in development and gave post-colonial regimes in Africa their support (Ake, 1991). This led
to intensive dialogue between the West “and the one-party/authoritarian state officials” (Mukandala 2001). At this stage, it is fair then to point out that the wave of democracy President Mugabe was resisting in post-2000 Zimbabwe “has its roots in the restructuring of the international capitalist system that has been going on more noticeably since the late-1970s” (Mukandala 2001). Margret Thatcher who inaugurated the ‘Greed is good’ mantra and Ronald Reagan were at the helm of this ideological position, the World Bank (WB) and International Monetary Fund (IMF) provided the funding whilst the transnational corporations and international capital were implementers in the imposition of economic structural adjustments (Mukandala 2001). It is ironical that the ZANU PF leadership was already fighting for majority rule in Rhodesia, and then signed the Lancaster agreement in 1979 (during the reign of Margret Thatcher) that led to majority rule in Zimbabwe. It had a whole decade of observing the political effects of the project in Third World countries and especially in neighbouring Zambia from 1980 to 1990. President Mugabe remained in power and encountered the political effects of the project in the third and fourth decade since its implementation. Before considering the Afro-centric views towards liberal democracy, a summary of how the West has justified the implementation of neo liberal democracy in Africa is presented. The West has argued and convinced African nations that neo liberal democracy is an effective development path. Neoliberal democracy allows for the free market system; movement of capital in and out of countries at will requiring transparency and flexibility, uncontrolled prices and labour, shrinking the state, role and function and deregulated the economy and only pursue policies boosting production (Gray 1998 and Mukandala 2001). Euro-centric views on liberal democracy justify it in Africa as an ideal model that provides space for launching, addressing, and seeking to redress the effects of SAPs (Mukandala 2001). It creates room for political participation and in policy formulation. It promotes accountability, efficiency in national public affairs and internationally. It replaces politics with rationality in the public sphere. The whole package refers to good governance, which is expected to be operationalised in a free market policy environment. Arguably, a system threatens the state power base by leading to crises in which human conditions become core in political expressions as is common in developing countries (Gray 1998). The deteriorating socio-economic conditions in the 1990s after Zimbabwe’s adoption of SAPs contributed to political contestation in which the pro neo liberal opposition party were challenging the incumbent nationalistic state.

It is arguable, therefore, that the West regarded democracy as one of the most critical items on the African agenda from 1980 onwards. In post-1980 Africa, authors writing from an Afro-centric stance proposed arguments against liberal democracy as a useful model for African states (Barkan, 1994). It became apparent to many an African critic that the political theories propounded by liberal democracy were by and large incompatible with African circumstances as it is Western value-laden, alien to their social spheres and did not seem to bring meaningful development apt for nations emerging from decades of protracted colonial rule (Oyekan 2009). It is also notable that given the ambiguity of democracy as a system of governance, this system can be criticised for its failure to co-opt idiosyncratic needs of Africa and its diversity of culture (Derryck, 1999). Some African scholars argued that, irrespective of the kind of democracy that is at play in Africa, this political model is not only an imposition but also an unnecessary attribute of African life since its occurrence cannot be located in the African historical context (Omotola, 2009; Nnoli, 2003). The unsuitability of liberal democracy lies in its Western
origin and development and its close link with capitalism that are at odds with African socialism (Omotola, 2009, Nnoli, 2003). It is in this light, therefore, that some writers not only object to the uncritical importation of liberal democracy but also doubt the need to impose an alien philosophy and model of governance on other nations (Ake, 1996). These thinkers accentuate their argument with the consideration that liberal democracy has more of an economic bias at the expense of other variables in human existence (Saul, 1997). In this discourse, Omotola (2009) and Nnoli (2003) have it all twisted. The authors regurgitate the age-long Western generated myth that democracy is a historically alien concept in Africa. This falsehood was exposed long back. The late Zimbabwean historian, Stanlake Samkange (‘African Saga’), for instance clearly cites accounts written by early European travellers and missionaries who described the intricate consultation procedures they observed their African ‘hosts’ following in resolving day-today issues. It is for that reason that chiefs or kings (Izinkosi) had advisors (indunas). Several historians have also established that in times of emergency (e.g. war, famine, disease and epidemics) African leaders had the prerogative to rule by decree. A nation that faces an existential threat cannot afford the luxury of the version of democracy advocated by the West because it is simply suicidal. After all Western leaders do rule by decree in times of emergency. US presidents invoke ‘national security’ to fight ‘communism’, ‘war on terror’, and others wars they deem fit. Rule by decree is not exclusive to the West. So too, consultation is not exclusive to the West. These are primordial and historical artefacts undergirding African logics of rule. Arguably, when African states so within their sovereignty, the West indicts them for violation of Human Rights.

It is worth noting that despite the general reservation most African scholars have against Western liberal democracy, they nevertheless concede that the attempt by Africa to democratise and strengthen its institutions was right. It is therefore argued that the dilemma for Africa has been its failure to separate the aim of liberal democracy and its manifestations in accepting it (Oyekan, 2009). However, as for neoliberal democracy’s usefulness in Third World countries in particular, it is neither a necessary nor a sufficient condition for development, mainly because democracy too often extends those very vices genuine development in Africa should eradicate such as class domination, poverty, inequality and uncertainty about the future (Saul, 1997). Certain factors are identified as constituting the basic limitations for democratisation in Africa. Lack of basics for constitutional democratic politics, high poverty levels, maximum cultural fragmentation, insufficient capitalist leanings, lack of the requisite civic culture, weak and more bureaucratic middle classes compared to entrepreneurial middle classes, easy and vulnerable co-optation into authoritarian political structures, the existence of embryonic working classes except in a few cases such as Zambia and South Africa (Joseph, 1999). Thus in light of these factors, Ake (1993a) concludes that the political arrangements of liberal democracy make little sense in Africa. Another rationale for this position is that liberal democracy’s failure to make sense in Africa stems from its assumption of individualism that is mostly at odds with associational life in Africa that is based on a collective social sense (Ake, 2000). One may concede to an analyses by Larok (2011) who argues that collective social sense (social nature of human beings) is central in African democracy. Ake and others also view it that it offers more effective political participation than that offered by liberal
democracy that prioritises individualism. There is thus downplaying of the significance of the collective in liberal democracy and this is achieved through focusing on the individual whose claims are ultimately placed above those of the collective (Ake, 2000). It therefore becomes clear that “Western democracy” does not serve the interest of Africa but is also unsuitable for Africa as it is also “tyrannically imposed” by former colonial powers that ignore Africa’s contextual variables such as traditional forms of governance in favour of their ideological cause (Nyongesa, 2012). For example, other critics argue that the conditions created by liberal democracy [can] never co-exist with popular democracy African states (Mukandala 2001). Short of declaring that the West should keep their hands off African affairs, Gray (1998) argues that instead of pushing reforms through an ideological tool, the West should have at least opted for negotiation and clearer political changes.

The conclusion by Ake is convincing in that although liberal democracy disempowers people by ejecting some of the qualities of a popular democracy, a popular form of democracy is more likely to empower the people by ensuring that everyone participates as part of an interconnected whole in promoting the common good (Ake, 2000). In this regard, a six-point antithesis of liberal democracy in Africa is presented by arguing that, first, liberal democracy is a hollow concept as it claims that key decisions are based on popular involvement. Second, liberal democracy is mere hegemonic class rule because it does not necessarily dislodge the dominant ruling class. Third, liberal democracy entrenches capitalism since it opposes the adoption of alternative political and economic models. Fourth, the adoption of liberal democracy in the post-colonial period in Africa makes possible the exertion of Western pressures and domination. Fifth, liberal democracy entrenches the status quo: in democratic transitions, it is the choices made by those enjoying governmental and social power that are most influential when faced with challenges to their dominance. Sixth, liberal democracy comes with policy and institutional limitations in that, while its core institutions and practices rest a free play of ideas and interest, certain substantive policy outcomes are ruled out whilst others are kept intact (Ake, 2000). Arguably Africa’s alternatives to neoliberal democracy lies rediscovering its ideological position. Neoliberalism takes Africa back to colonialism as they lose their autonomy to the West. Rediscovering of a viable political ideology of Africa means understanding that neoliberalism is just but one of the several ideologies they can embrace. The onus is on Africa to return to Socialism or implement a modified version of. This Marxist- Socialist ideology liberated Africa from the shackles of colonialism. Eastern Europe cannot be underestimated in this regard as it provided military training and other logistics leading to liberation of Africa through armed struggles. The first African nationalist leaders had a vision that failed to develop beyond their life spans. It can be stressed that Julius Kambarage Nyerere’s Ujamaa philosophy, K. Nkrumah’s Scientific Socialism, Kaunda’s Humanism, and pro African ideas of Jomo Uhuru Kenyata and Milton Obote could be used as the foundation to a new African ideology. Currently the East is failing to unite against neoliberalism since fragmenting from the Union of Soviet Socialist Republics since 1991. Nations such as Pakistan are battlefields for ideological wars while the Middle East is fails to recognise that only political unity and solidarity among themselves will preserve their natural resources and bring peace in the region. Africa should reject the violent ideology
of neoliberalism that is so sly and gives the impression that those nations that resist it are grossly abusing of Human Rights. Another alternative for Africa is to break away from the international capitalist order that perpetuates inequality, poverty and insecurity in all forms. It can be argued that post 2000 Zimbabwe is in a dilemma and stands as a test case for Africa. On one hand succumbing to neoliberalism is viewed as a betrayal of the African cause and the gains made under Robert Mugabe’s reign. On the other hand, resisting neoliberalism plunges the nation into deeper economic woes as global financial institutions (World Bank, International Monetary Fund, and World Trade Organisation) and the World Health Organisation continues to tighten economic conditions until there is a change of regime. Admittedly, the choice for Zimbabwe is not easy taking into account that former president Robert Mugabe’s turn Eastern policy is still intact.

Although fundamental freedoms, political liberties and civil rights are routinely limited in many African countries, ordinary Africans in many of them do not agree that police brutality, torture, extra judicial killings and accessing power through violence are African values worthy of appropriation (Nyongesa, 2012). Thus for scholars the much-talked about dismal performance of most of the African leaders is merely a reflection of the fact that democracy as it is practiced in Africa is still problematic, in comparison to how it is construed and practiced in Western countries (Jotia, 2012). The arguments in this section clearly spelt out the rationale for antagonistic relations between the African state and pro neoliberal democracy per se and its agents of such as INGOs. The INGOs are viewed negatively for their surrogate roles and only their agenda puts the poor African states in a desperate need for humanitarian crisis solutions. There is evidence that other African states have used authoritarian legalism just like the revulsion displayed by President Mugabe against INGOs making it a trend. The withdrawal of state repression against dissent and INGOs in post 2000 depends on the dissenter organisations and individuals. The state has a right to use force in its territory. The law binds citizens, and the state enforces the law and order. It can be argued that when anti-state behaviour is displayed in a manner that causes chaos in any country, the state is compelled to restore order by any means it deems appropriate.

**Conclusion**

Political corporatism in Africa cannot be best understood from a euro-centric perspective. The concrete capitalist mode of production imposed on Africa determines the rationale for the use of political corporatism. A continent that lost lives, human resources, had its natural development stagnated would not allow its gains to be lost easily. What emerges from the discussion is that political corporatism in the African continent is a tool for power retention or political longevity exercised by all states in the world. Where political corporatism is used in cohort with the imperialist and capitalist west, it is neither a challenge nor violation of Human Rights. African states adopted repression as a tool for ridding themselves of the remnants of colonialism. They further went on to use it for the maintenance of order and restoration of it in cases where adverse forces had destroyed them. The spread of neoliberal
democracy in Africa has also seen states resorting to political corporatism as an anti-neoliberalism tool to keep away from a new form of colonialism. Political corporatism for Africa and Zimbabwe in particular has remained a tool and strategy for eliminating political opposition and fighting foreign ideology. In Zimbabwe just as in any African country, political repression has served to avoid well-calculated regime change preceded by the 1991 economic structural adjustment programmes (ESAPs). The socio-economic misery that emanates from the implementation of ESAPs had seen the citizens unhappy with the state and ready for a new opposition party. The rise of NGO activities in political advocacy in support of neoliberal policies did not leave African states free from the use of repression. When the post 2000 state in Zimbabwe resorted to the use of repression in its defence, the West did not hesitate to label it totalitarian and gross violator of Human Rights. What emerged from this discussion is that the state in post 2000 Zimbabwe was not unique in its application of political corporatism against dissent and international nongovernmental organisations in its territory.

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Thinking Global through Consensual and Reformist Approaches: Considered Governance Innovations for Lagos Mega-City Status

Mike Opeyemi Omilusi

Abstract: In Nigeria, spatial planning is inadequate in both the rural and urban cities because most neighborhoods emerge organically and have no layout. Lagos is particularly vulnerable as this densely populated city, projected to grow rapidly in the future, has large parts of its inhabitants living in poor informal settlements. Drawing from both secondary and tertiary types of data from relevant sources—local documentation and library research—this study subscribes to good urban governance which assures that political, social and economic priorities are based on the broad consensus of society; and that making Lagos a mega city requires creativity, vision, leadership, resources, and a culture that disrupts the traditional way of city planning and designing. Adopting the consensual and reformist approaches with a view to achieving an alternative vision of addressing environmental challenges in Lagos State, this study also suggests a shift in urban planning policy and strategies—such as improvement and access to social services, mixed housing schemes that combines a self-help housing improvement with land access, public involvement in community development effort and registration of informal settlements—for the development of Lagos State as a modern mega city with a view to achieving a sustainable urban system.

Key Words: Governance, Consensual, Reclamation, Reformist, Global, Mega-City

Introduction

With the rise of massive urban centres in Africa and Asia, cities that will matter most in the twenty-first century are located in less-developed, struggling states. A number of these huge megalopolises—whether Lagos or Karachi, Dhaka or Kinshasa—reside in states often unable or simply unwilling to manage the challenges that their vast and growing urban populations pose (Liotta and Miskel, 2012). The population of Lagos is presently more than 18 million; a mega city by the United Nations’ classification that recognises cities with a population of 10 million and above as such. Building and preserving a model mega city comes with great challenges. Providing sufficient infrastructure and other necessities to accommodate over 18 million people is no child’s play (Ogunbiyi, 2014). The expansion of Lagos was due to the growth of the colonial economy of Nigeria. Having served as the seat of government between 1914 and 1992, after which the federal capital was relocated to Abuja, Lagos remains the largest seaport and the most important railway terminus, and enjoys prominence in the export-oriented economy of Nigeria (Agbola, 1997).

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However, while there are benefits in having a large population, it equally comes with its attendant socio-economic challenges, such as unemployment, crime, over stretching of infrastructure, traffic congestion, environmental pollution, overcrowding and emergence/growth of slums populated by the poor who could not afford the high cost of housing in the city (Dina, 2017). This description fits Lagos as the constant pressure for housing, commercial and social infrastructure encourages encroachment on the wetland ecosystem (Ajibola, Adeleke and Ogungbemi, 2016).

This study draws on existing research works and planning reports, both secondary and tertiary types of data comprising local documentation and library research. It postulates that good urban governance involves a broad consensus of society on political, social and economic priorities; that such cooperation and participation are required to pool together the creativity, vision, leadership, resources, and culture that could overhaul the traditional way of city planning and designing. This study also suggests a shift in urban planning policy and strategies—such as improvement and access to social services, mixed housing schemes that combines a self-help housing improvement with land access, public involvement in community development effort and registration of informal settlements—for the development of Lagos State as a modern mega city with a sustainable urban system.

Urbanisation and Mega-Growth: A Conceptual Exploration

Urbanization, simply defined, is the process by which urban population increases in absolute number and in proportion to rural population either through the increase in population of existing cities or through the growth of new ones. Mabogunje (2005) stresses the characteristics of an urban settlement as a settlement where population tend to be heterogeneous and socially diversified, such that kinship relationship is of minimal importance; goods and services are largely commoditized such that everything tends to have a price tag to it; and interaction and interpersonal relations are virtually contractual in nature with the maintenance of law and order being rather formal and impersonal (Mabogunje, 2005). Urbanization is a global phenomenon that has transformed and continues to alter landscapes and the ways in which societies function and develop. Cities offer the lure of better employment, education, health care, and culture; and they contribute disproportionately to national economies (Trivedi, Sareen, and Dhyani, 2008). Urbanization is one of the major demographic and economic phenomena in developing countries, with important consequences for economic development, energy use, and well-being (O’Neill, Ren, Jiang, and Dalton, 2012).

Moreover, as the world’s urban population grows, the interdependence of town and countryside become even tighter. During the two centuries until 1950, about 400 million people moved to cities worldwide. Current projections suggest that by 2050 more than 6 billion people, almost 70% of the total world population, will live in urban areas. Cities in developing countries are expected to grow by 1.3 billion people in 2030. The lowest, even negative growth rates are in Eastern Europe (UNDESA, 2012). Three distinguishing features have been identified with the current trend of global urbanization. First, it is taking place mainly in developing countries; second, it is occurring rapidly; and third, the severity of its occurrence and impact appear unevenly distributed across the globe, as observed by Cohen.
Several factors are responsible for urbanization. These include population dynamics, economic growth, legislative designation of new urban centres and increases in densities of rural trading centres. Early urbanization was attributed to the push and pull factors of rural-urban migration. Early migrants, usually males, went to the city in search of job and better life.

An increasing number of urban areas are becoming mega cities; that is, exceeding 10 million inhabitants. This has given rise to the new concept of gigacities; these would be cities of more than 50 million inhabitants, an almost unimaginable number. And yet gigacities may soon become a reality in China (Allianz, 2015). This extreme concentration of people is causing big challenges, particularly in the area of sustainable development. According to the UN, the world’s cities only cover 2% of global land area, but they account for 70% of greenhouse-gas emissions (ibid). By 2025, at least 27 cities will have populations greater than 10 million and more than 600 cities will have populations greater than one million. Specific megacities, intimately connected to globalization, pose the most significant security and environmental threat to human existence (Liotta and Miskel, 2012).

Urban growth is spread unequally around the world, and the same is true of the largest cities. Most of the megacities in the developed world are growing slowly, if at all. Tokyo remains the largest with 35 million inhabitants, but the fastest growth will be in the developing world (particularly in Asia and Africa), placing huge pressure on infrastructure in those locations. By 2020 Mumbai, Delhi, Mexico City, São Paulo, Dhaka, Jakarta and Lagos will each have populations of over 20 million. For many emerging cities, soaring populations are extremely difficult to manage: at current rates of growth, the number of inhabitants in Nigeria’s Lagos will double by 2020, mainly through expansion of informal settlements (GlobeScan and MRC McLean Hazel, n.d). A report from the Population Reference Bureau predicts that by 2050, three of the 10 most populous nations globally will be African -- with Nigeria at number four. The country’s population is set to rocket to 397 million, bolstered by high fertility rates and consolidated by low net migration. To put this figure in context, by the century’s midpoint, Nigeria’s population would be larger than Central Africa’s in its entirety. The population boom will impact the whole country, but nowhere will it be more profound than in Lagos (Page, 2015).

This incredibly rapid growth of megacities causes severe ecological, economic and social problems because it is increasingly difficult to manage in a sustainable way. It is recognised that over 70% of the growth currently takes place outside the formal planning process and that 30% of urban populations in developing countries are living in slums or informal settlements, i.e. where vacant state-owned or private land is occupied illegally and is used for illegal slum housing (FIG, 2010). In sub-Saharan Africa, 90% of new urban settlements are taking the form of slums. These are especially vulnerable to climate change impacts as they are usually built on hazardous sites in high-risk locations. Even in developed countries unplanned or informal urban development is a major issue (FIG, 2010).

Although there are significant differences in the cultures and histories of emerging megacities, from the dangerous streets of Karachi to the sprawling shantytowns of Lagos, basic similarities are dramatic. All have experienced recent and rapid population booms during unsettled periods in national histories,
driven in large part by internal migration from depressed or chaotic rural districts. In each, municipal and national governments failed to either govern or provide for exploding urban populations (Liotta and Miskel, 2012). In 1905, only 10 percent of the world’s population lived in cities. Today over 50 percent does. By 2030, likely much sooner, two out of three will live in cities, and 90 percent of population growth will occur in cities of the developing world—what we should properly call the “majority” world. This massive shift to urban landscapes has never occurred on such scale before in human history. Citizens flock to the city for opportunity, employment, health care, and education. Today one in six persons lives in cities with unhealthy air quality; one in fifteen has inadequate sanitation; one in thirty lacks access to safe drinking water.

By 2025, according to the National Intelligence Council, there will be twenty-seven cities with populations greater than 10 million—the common measure by which an urban population constitutes a “megacity.” If measures are not taken soon, some of these megacities will pose the most significant security threat in the coming decades. They will become havens for terrorists and criminal networks, as well as sources of major environmental depletion. They will serve as freakish natural laboratories where all the elements most harmful to international and human security are grown. If crowded masses within these unaccommodating spaces are left to their own devices by inept or uncaring governments, their collective rage, despair, and hunger will inevitably erupt. And when inhabitants tire of the lawlessness, poverty, and instability of the megacities, they will leave—those that can—brining violence with them (Liotta and Miskel, 2012).

In more advanced nations, urban population growth is almost stagnant (0.67% on an annual average basis since 2010) and, in some cases, is even decreasing: Japan is expected to lose 12 million urban dwellers by 2050 and the Russian Federation’s urban population is expected to decline by 7 million people. By comparison, the aggregate annual population increase in six major developing country cities—New Delhi and Mumbai, Dhaka, Lagos, Kinshasa and Karachi—is greater than Europe’s entire population (UN, 2014). Africa will be the world’s most rapidly urbanising continent between 2014 and 2050. It is projected to experience a 16% rise in its urban population—bringing the percentage of people living in its cities to 56% (http://esa.un.org/unpd/wup/Highlights/WUP2014-Highlights.pdf).

Megacities have both positive and negative features. They generate a higher-than average proportion of the nation’s output of goods and services and are centres of innovation in science, the arts, and lifestyles; contain many of the cultural assets of most countries; and offer some of the best opportunities for people to lead full and satisfying lives.

Lagos as Nigeria’s Economic Hub: Peculiarities and Opportunities

Megacities are the gateways of globalization, driving the flow of people, goods, knowledge, and money around the world. Already, one-fifth of the world’s GDP is generated in the ten economically most
important cities. Megacities also make a disproportionately large contribution to economic growth at a national level (GlobeScan and MRC McLean Hazel, n.d). The city of Lagos, Nigeria, needs little introduction among scholars of African urban studies. Lagos has become pivotal to recent debates among those who want to chart a new path for theorizing African cities (Fourchard 2011; Godlewski 2010).

Lagos has a rich history of economic growth and transformation. Although it covers only 0.4th of Nigeria’s territorial land mass, making it the smallest state in the country, it accounts for over 60% of industrial and commercial activities in the nation. Lagos is financially viable, generating over 75% of its revenues independent of federal grants derived from oil revenues. It generates the highest internal revenue of all states in Nigeria. If taken as a country on its own, its 2010 GDP of $80 billion made it the 11th largest economy in Africa (Nwagwu and Oni, 2015). Concerned about the sustainability of Lagos’ economic success in the face of population and infrastructural challenges, its government in December 2014 articulated the Lagos State Development Plan (LSDP) for 2012-2025. The plan aims to transform Lagos into a model megacity that is productive, secure, sustainable, functional and safe (Nwagwu and Oni, 2015).

Relying mainly on the data provided by the Lagos State Waste Management Authority (LAWMA), there are about 425 markets in Lagos. It is assumed that they harbour not less than 2 million market shops, stalls and sheds providing employment to at least 5 million people, with women and their children constituting at least 70%. The economic and social contribution of these market women to the urban economy can be easily discerned from the array of taxes, levies and rents they pay to the state and local governments as well as government departments and agencies (Komolafe, 2017).

Despite the movement of the federal capital to Abuja, metropolitan Lagos has remained the country’s dominant economic, social, and financial centre as well as the hub of national and international communications. It is a thriving industrial and commercial centre with two seaports, local and international airports, and industries concentrated in the Apapa, Ikeja, and Ilupeju industrial estates. Most corporations in the country are headquartered in Lagos. Lagos makes the greatest contribution to Nigeria’s leading economic indicators, with industries including manufacturing and service delivery, banking, and telecommunications services, as well as, to a lesser extent, fishing, mining and quarrying, agriculture, and forestry (Filani, 2012). Lagos is often painted as a land of long history and culture, where hard work triumphs, economic opportunities abound and with a great interest in the arts and entertainment industry (Osarumwense, 2017).

In many ways, Lagos was a unique city-state in the Nigerian federation. Already a cosmopolitan trading port when the British captured it in 1861, Lagos became the capital of colonial Nigeria in 1914. After Nigeria declared independence in 1960, the city’s energy, finance, and service sectors boomed. By century’s end, Lagos was generating roughly 60% of Nigeria’s commercial and industrial activity and 12% of its gross domestic product (Kuris, 2014). Most of Nigeria’s corporations choose to have their
headquarters in Lagos City. The location of Lagos State is highly favourable, capitalizing on the vast resources of Nigeria and West Africa. Consequently, as posited by Adeoye (2010), Lagos State embarked on various development programmes such as tourism promotion, industrial development, boundary resolution (inter and intra state), property valuation and revaluation for effective taxation and revenue collection, population and housing census operation, planning of urban and rural settlements and transportation, flood and erosion control, mineral development (including bitumen and petroleum and agricultural) and communication planning to support the megacity status.

Since Nigeria returned to democratic governance in 1999, the successive governors of Lagos State have initiated and pursued a knowledge-based approach to critical reforms. Aside from promoting sustainable development, these reforms also span resource mobilisation, innovative and inclusive approaches to spatial planning principles, transportation upgrades, provision of educational health care services and facilities, and partnership building with the private sector in development. As a result of these reforms, Lagos is being transformed into a modern city that offers a high level of services provided by an increasingly efficient city administration (Filani, 2012). Thus, boundless opportunities for profitable investment exist in tolled road construction, water transportation, light rail, mass transit schemes, housing estates, waste management and compaction, water supply and distribution, electricity generation and distribution, hospitality, recreation and entertainment, among several other exciting possibilities (Adeoye, 2010). Political leaders in Lagos have faced severe political and economic pressures over the past fifteen years. Unlike military governors, they have to win elections to stay in power. In contrast to the Nigerian central government and some state administrations, Lagos lacks access to abundant oil revenues and its leaders need to raise revenue internally (Gramont, 2015).

A Mega City and Its Mega Challenges

Administrations in large cities are often confronted with a multitude of key problems, like high urban densities, transport, traffic congestion, energy inadequacy, unplanned development and lack of basic services, illegal construction both within the city and in the periphery, informal real estate markets, creation of slums, poor natural hazards management in overpopulated areas, crime, water, soil and air pollution leading to environmental degradation, climate change and poor governance arrangements (FIG, 2010). As a result of these complications, some new megacities should be of particular concern because of their size, strategic locations, roles in the global economy, or their environmental vulnerabilities. As illustration, Lagos, Kinshasa, Cairo, Dhaka, Karachi, Lahore, and Rio de Janeiro will each have populations more than 10 million in 2025. Five of these seven (Lagos, Karachi, Kinshasa, Dhaka, and Rio) will have populations of 15 million or more. All are in states that have largely proven incapable of providing the scale of law enforcement, public health, education, and social services that such large populations require(Liotta and Miskel, 2012).

While the economy of metropolitan Lagos has enormous competitive assets, it faces challenging trends in rapid population growth, urbanisation, relentless demands for infrastructure as well as macroeconomic pressures from the national level. The city's expansion is estimated to continue over
the next couple of decades. As it is, the economic growth of Lagos – the industrial, financial and commercial nerve centre of the country – has been unable to keep pace with the geometric increase in the population size (Nwagwu and Oni, 2015). Lagos’s governance deficits are felt especially acutely by the poor, but they also touch wealthier residents, prompting strong concerns about quality of life, security, and economic competitiveness (Gramont, 2015).

This section shall focus on five broad areas of these challenges for further analysis: *Uncontrollable Population Growth, Lagos Flood and its Annual Devastating Effects, Safety and Security: Influx of Criminals from other States, Infrastructural Deficits and Environmental Pollution* while issues of *Land Reclamation and Slum Settlements Regeneration* are discussed in a separate section.

**Uncontrollable Population Growth**

The physical growth and urban development of Lagos are tied to its expanding economic and political roles, aided by rapid population growth. The city’s population rose from an estimated 25,000 inhabitants in 1866 to 74,000 in 1911, partly due to the resettlement of freed slaves from Brazil. Between 1891 and 1952, the population almost doubled every 10 years. In 2006, a national census recorded the population of Lagos State as 9.1 million. This figure was vehemently disputed by the Lagos State Government, which conducted an independent census that gave a figure of 17 million (Filani, 2012). A closer look at the demographic data of Lagos reveals the following: a fast-growing population; a predominantly young population; smaller household size; and preference for individualism. The combined implication of the above is the demand for more housing units to cater for the shelter needs of the resulting households (Akunnaya and Adedapo, 2014).

Though a mega city status is conferred on a city as a result of population growth, building and sustaining a model mega city is not a tea party as reflected in the Lagos experience. A major challenge has always been how to cope with the ever increasing population of Lagos with its attendant consequences on infrastructure (Ogunbiyi, 2014). According to the available statistics, an average of 6,000 people move to Lagos every day, thereby adding to its already bursting population of 18 million people (George, 2002). Over the past decades, the city has had to contend with the challenges that accompanied staggering population growth rates (Filani, 2012).

**Lagos Flooding and its Annual Devastating Effects**

The perennial Lagos flooding, experts say, could be attributed to many factors such as torrential rainfall, poor drainage system, poor sewage management and disposal, poor urban planning control, deforestation and climatic change. All these factors have combined to make flooding a regular occurrence in most areas of the state, particularly the Ogun River downstream areas, such as Akute, Kara market, Ishasi, Isheri, Ojodu –Abiodun, Ajiliti and Ajegunle Mile 12 axis (Lucas, 2017). Through its Lagoon and Creeks, Lagos receives all the waters from the Ogun and Osun river basins for onward release to the Atlantic Ocean via the Commodore Channel. This, in combination with its small geographic size and extensive urbanisation, makes Lagos incredibly vulnerable to flooding (Lucas, 2017).
While Lagos is not new to flood, the severity of the floods seems to have increased dangerously in the last few years. This is happening even as the state gravitates towards a megacity status, signposted by the dreamscape Eko Atlantic City project. But whether the annual menace of flood and the decaying infrastructure that accompanies it accords with the status of the smart city Lagos is projected to become is another story (Fasan, 2017). According to environmental experts (see Igomu, 2017), the annual flooding is a clear indication that Lagos, like other states, has not developed the capacity to face the challenges of the times posed mainly by changing climatic conditions, unhealthy human activities and unregulated urban development.

The 1997 Lagos State Action for Environment and 2006 Lagos State Regional Master Plan Review revealed the extent of environmental degradation in the state. Climate change driven intensive rainfall and storm surges from Lagos lagoon is responsible for the flash floods and silted primary drainage channels in the metropolis. High rainy-season water table further depreciates the housing qualities (Adejumo, Olajide & Bishi, n.d). Lagos experiences most devastation resulting from flood-swollen rivers, lagoons and oceans-surge, huge displacements of people and loss of economic values resulting from damage of properties and farmlands, and most especially the unquantifiable grieve from loss of lives and the lifelong impacts these will have on particularly poor families (Fadeyi, 2017).

There is widespread fear that more high-worth commercial and residential zones in Lagos may still be flooded (Badejo and Udom, 2017). In fact, a report which assesses flooding hazards in Lagos over a span of 16 years shows that such events may result in loss of up to 260,000 lives in the next 10 years. This may be accompanied by a GDP (gross domestic product) loss of $5526.2 million and $48.1 million urban damage (Badejo and Udom, 2017). Because the state accounts for 40% or so of the Nigerian economy, a disastrous environmental crisis in Lagos could prove apocalyptic for both Lagosians and the entire country. This is the compelling reason why the Federal Government must take a special interest in Lagos State and general matters of the environment.

Safety and Security: Influx of Criminals from other States

As the commercial nerve centre of Nigeria and, indeed, West Africa, Lagos has unusual security challenges. Its increasing population, motivated by an endless survival and economic inspired immigration as well as its border with Benin Republic, makes it naturally attractive to criminal activities (Ogunbiyi, 2016). In addition, Lagos is not only becoming a “megacity” in terms of population but it is a global city with a substantial and growing foreign-born population and non-stop flights to hundreds of destinations around the world (Nwagwu and Oni, 2015). Lagosians were long used to assuming responsibility for their own security and disdaining government as a burden rather than a force for the public good (Kuris, 2014).

Where governance failures are persistent, violence can take an overt or covert form of coercion and control, with different groups seeking to fill the institutional power vacuum (Muggah, 2012). This is true in Lagos where there is a ready pool of recruits for cult, criminal and vigilance groups. According to Agbola (1997), overcrowded slums in the metropolis have been found to contribute:
To a high rate of juvenile delinquency; high rates of family dependence on members of the public for assistance; high levels of illiteracy; high proportions of unemployed women; greater levels of unemployment, poverty, and divorce; more non support cases, alcoholism, drug abuse; a higher rate of psychological disorders and mental deficiency; low marriage rates; a low average educational level; low residential mobility (due to acute shortage of residential building and land); and a generally higher degree of social abnormality, lawlessness, crime and fear.

Currently, about 18 million people are being protected and monitored by 33,000 police men and women in Lagos State. Yet, the city, being the financial hub of Nigeria, has one of the highest crime rates in the world, lacks reliable emergency response services and an efficient crime control system (Adeoye, 2010). A 2004 survey of more than 2,100 Lagosians conducted by a local non-profit research centre found that 25% of respondents said they had been victims of theft in the previous five years, 9% had been victims of armed robbery, and 1% reported the murder of a household member (Kuris, 2014). According to Liotta and Miskel (2012), residents in most neighbourhoods have to provide transportation for police officers in order for local crimes to be investigated. Urban “bustle” is not a lively scene of pedestrians enjoying the streets or shops. Rather, jostling street gangs and militias fight each other while nudging aside overmatched and all-too-often exploitive government agencies—peeling away whatever thin layers of protection the state provides and setting the stage for the eventual storming of a by-then hollowed-out Bastille.

The laws establishing neighbourhood corps, anti-kidnapping law, anti-land grabbing law, security trust fund law, environmental protection law and several others are to tackle the challenge of insecurity in the state. For instance, the Lagos State Neighbourhood Safety Corps (LSNSC) was a response to what the governor described as diverse security challenges demanding the intervention of a supportive safety agency. As indicated in the law, the corps was established to assist the Nigeria Police and other security agencies in the maintenance of law and order across all communities in Lagos State, register all private home guards, provide useful intelligence for crime prevention to the police, facilitate the arrest of perpetrators of criminal activities across all communities, and the balancing of communal interests in resolving disputes (This Day, 2017).

**Infrastructural Deficits**

All cities need high-quality infrastructure to facilitate the movement of people and goods, and the delivery of basic services to their populations. But the challenge of delivering these infrastructures and services in today’s megacity regions is immense (GlobeScan and MRC McLean Hazel, n.d). Unchecked population growth had overwhelmed Lagos’s bare-bones infrastructure. Hundreds of thousands of migrants arrived every year in search of better lives (Kuris, 2014). The growth in the Lagos population is not accompanied by a corresponding infrastructure development and because of the attendant challenges in getting affordable housing, many Lagosians have moved to the suburbs and what used to be rural areas, creating new belts of settlements. In fact, the present increase in slums and rural settlements in Lagos is an indication that hundreds of thousands of people are living in appalling housing structures, making use of crumbling roads, and lacking social amenities (Balogun, 2017). According to the State Governor, Akinwunmi Ambode:
As at 2015, our state had 16,000km network of roads but with a daily human traffic of over 7.5 million people and 2.8 million cars. The power needs of the state are over 10,000 mw of power but we receive less than 2,000mw. We presently supply 210.5 million gallons of water per day ("mgpd") as against a demand of 750 mgpd (Balogun, 2017).

Adequate levels of infrastructural facilities with appropriate supporting social services are a prerequisite for any meaningful programme of sustained industrial and commercial development of Lagos (Abiodun, 1997). However, with the public sector unable to fund the infrastructure needs of a modern megacity, Lagos now emphasises the adoption of public-private partnership (PPP) projects as a mechanism for infrastructure delivery (Filani, 2012). The Lagos Megacity Project (LMCP) was launched to address a longstanding infrastructure crisis and to reinvent Lagos as a modern megacity (Adama, 2017). Little wonder, the bulk of the Lagos State Government revenue of recent, has been spent on capital expenditure, specifically physical and social infrastructural development. In 2017, 54 per cent of the state’s income was voted for infrastructure; in 2016, it was 58 per cent and for 2018, a massive 67 per cent capital expenditure is proposed. Thus, many of the roads within the state have undergone or are undergoing rehabilitation, upgrades or maintenance (Gbadebo, 2018).

Despite this frenzy of construction/renewal activities, the infrastructure is still some way in meeting the demand from the ever-growing population. The about N1 trillion or so spent on infrastructure over the past two years is like a drop in the ocean. According to experts, the state needs to spend over $120 billion (about N44 trillion) yearly to meet the infrastructure requirement of its population in the next decade (Gbadebo, 2018). In spite of the glaring financing gap, the state must still press on with its developmental agenda if it hopes to transform into a mega city and remain competitive alongside Tokyo, Hong-Kong, Sydney, among several other global cities.

**Environmental Degradation/Pollution**

Massive displacement of people to megacities perpetuates environmental degradation and climate change resulting in the shrinkage of areas available for agriculture and causing the loss of livelihoods based on agricultural and animal breeding (FIG, 2010). At the point when the environment is wrecked, or common assets are exhausted, the environment is considered to be corrupted and harmed. Environmental degradation takes diverse forms, ranging from pollution and destruction of ecosystems to degraded fresh water supplies and arable land (Durosinni, 2017). Other key challenges in the environment sector include land degradation, flood and erosion, inefficient use of energy resources, loss of biodiversity, environmental disasters and deforestation (Alkali, 2005).

Urban growth and land conversion involving human activities are major threats to the ecosystems, and modify energy flow and nutrient cycles (George, 2002). The inadequate environmental management attached to the diverse and complex activities within the urban centres is resulting in environmental problems that are threatening urban dwellers (Filani, 1988). These include the haphazard locations of industries and emissions of hydrocarbon and poisonous gases that contribute to the depletion of the ozone layer and aggravating climate change and global warming. As in other large concentrations of human habitation, the Lagos environment suffers from the pressures of deforestation, energy use, transportation and gas-flaring, all of which are contributors to carbon emission and global warming.
Some of the environmental challenges the state has to grapple with include: overcrowding and unplanned human settlement; sprawl development arising from rapid population growth; poor sanitation in slums/blighted communities and increase in the number of settlements requiring regeneration/renewal; the low-lying terrain of Lagos and its implication on storm water management and flooding control; threats to and abuse of wetlands arising from human activities; pollution of surface and underground water bodies; as well as land and the atmosphere pollution arising from domestic, commercial and industrial activities.

Environmental degradation in cities is caused principally by the urbanization process. However, most of the environmental problems in Lagos suburbs result largely from its unplanned landuses, swampy nature of built areas and weak development control (Simon, Adegoke and Adewale, 2013). Garbage and waste disposal problems in Lagos have aggravated longstanding challenges of seasonal flooding and sewage backup (USAID, 2006). Land excavations and reclamation activities in parts of Lagos pose serious threat to the environment, escalating the incidence and severity of flooding. The problems of industrial pollution are enormous. Nigeria has about 5,000 registered industrial facilities and some 10,000 small-scale industries operating illegally within residential premises (FGN, 1997). Many of these are in Lagos. They contribute to pollution through poor operational methods and waste management. Lagos State’s 18 million residents generate more than 6,000 metric tonnes of solid waste each day. To address this issue, the state government created the Lagos State Waste Management Authority (LAWMA), which is also responsible for managing waste generated within the city (Filani, 2012). Also, the Lagos State Government has come up with a new intervention it terms the Cleaner Lagos Initiative (CLI), which, backed up by law, is meant to encourage people to dispose of solid wastes properly. The CLI, as a strategic government policy and programme, is aimed at revitalizing the entire Solid Waste Management sector to have far reaching benefits and multiplier effects for the state and the country at large (Durosinmi, 2017).

**Land Reclamation and Slum Settlements Regeneration**

Lagos has historically been challenged by rapid urbanization and natural population growth. With its coastal location limiting expansion, the availability of land is a major issue. Lagos is Nigeria’s smallest state by area, and the high rate of migration means that there is severe pressure on the limited land — 22 per cent of the state is made up of water. In the last two decades, the state has expanded rapidly in every direction; even its southern flank, bounded by the Atlantic Ocean, now has a multibillion-dollar reclamation project (Ogunlesi, 2015). While the population in metropolitan Lagos has grown in geometrical proportion, the provision of needed urban infrastructure and housing has progressed in arithmetical proportion. This has resulted in acute shortage of housing to the teeming population with Lagos alone accounting for about 5 million deficit representing 31% of the estimated national housing deficit of 18 million (Oshodi, 2010). The housing situation in many parts of Lagos leaves much to be desired. Many residents are homeless or live in housing units described by the United Nations as a menace to health and human dignity (Agbola, 1997).
There is a dramatic view of the city’s sprawl of poverty from the road bridges that carry daily commuters between the islands and the mainland. Fishing and sand-dredging boats drift to work, heading deep into the lagoon. Many of the slums’ wooden huts are on stilts, others are just basic shacks shoddily built on the unstable ground of trodden-down rubbish dumps (Leithead, 2017). Today, slums are ironically sandwiched within the built environment and business districts of Lagos, and it projects a stark reality of a deep-rooted urban degeneration – low lifespan, unemployment, limited access to health care facilities, poor infrastructure and insecurity (Olumuyiwa, 2017). The slums in Lagos are located on all the left-over land parcels previously reserved as buffer zones and green belts. These high-density areas are characterised by poor building quality, inadequate infrastructures and no government services. There was no legal and material capacity to undertake town planning. Today, these areas have become havens for private developers, who took advantage of the situation to embark on an unregulated provision of housing, which can be classified as informal (Sowemimo, 2016).

Urban land scarcity for housing provision in Lagos metropolis is worsened by the twin problems of relatively tiny land area and large presence of body of water covering 22% of the total land area and excessively high and increasing population. The city has 0.04% of the Nigerian land mass, but accommodates 10% of the country’s population (Raheem, 2003). Owing to the prevailing land scarcity, several attempts have been made to reclaim lands from the Lagoon systems, on a large scale in the past fifty years. Such successfully reclaimed lands have been used for housing purposes. Areas currently occupied through this means include, Maroko, Iponri, Iganmu, Victoria Garden City, Ilubirin, Ogudu, Lekki Peninsula, Osborne Road, Ajah, Amuwo-Odofin, Abule-Nla and Herbert Macaulay, covering approximately 6,000 hectares or 1.65% of the total land area of Lagos State and housing an estimated 500,000 inhabitants in 20,000 buildings (Onaivi, 2004).

Successive governments kept approving the reclamation of land from the sea. Today, many buildings in Lagos Island are practically sitting on a foundation of water. Reclamation continues unabated, from Ilubirin to Park View to Lekki, and beyond; on the other side of the island, the sea is being chased further away. Recently, the Lagos state government further decided to take over Otodo-Gbame and 38 other waterfront communities (Abati, 2017). Evidently there is massive environmental degradation in which the people and government are implicated. Land-filling and reclamation on the Island especially with regards to the development of Eko Atlantic City is something that should be looked at closely. There is every possibility that activities directed at establishing Eko Atlantic might be having adverse effects in other parts of Lagos. The massive reclamation of land that accompanies this could have truly devastating effect if not done with care. There is a limit to how far man can interfere with nature without consequences (Fasan, 2017). African countries are negatively affected by this phenomenon and with most Nigerian communities located in low-lying areas, heavy rainfall could often result in ocean surge, flooding, erosion, or an imbalance in the ecosystem. With regards to the Eko Atlantic City, Abati (2017) contends that:

... when fully developed would be a mini-city on top of the ocean. The Nigeria elite has developed a taste for living “inside water” and yet when the water overflows into their compounds and sitting rooms, they raise an alarm about what is at best, self-inflicted injury. This probably explains why when the recent floods occurred in Lagos Island, most Lagosians
living in the Mainland turned the incident into a matter for class warfare. They laughed at the elite living on the island. A plot of land in some high-brow parts of the Island is as expensive as $2 million and yet when it rains heavily and the ocean overflows its banks, the people flee.

In reference to the flood in question, Fadeyi (2017) observes:

For a state government - generating about N30 billion naira monthly - which prioritizes aggressive acquisition (more than planning) of land spaces by pushing back lagoons and ocean plains while ignoring the massive debilitating effects of its deforestation practices because of political cronyism and acquisition of wealth, it should not be hard to foresee that a day of reckoning is near with consequences such as those recently witnessed.

The explosive rates of growth have not only progressively complicated and exacerbated inter-related problems of human settlements and the environment, but have also greatly accelerated poverty (Alkali, 2005). The lack of decent public housing in the mega-city has consigned hundreds of thousands of families to deplorable living conditions and crippling rents (Ilesanmi, 2013). Slum clearance in Lagos dates as far back as the late 1920s during the outbreak of the bubonic plague, when entire neighbourhoods were evacuated. It was estimated that 24 out of the 36 forced evictions that occurred in Nigeria between 1973 and 1995 was in Lagos. An example of such eviction was at Maroko, at that time, was one of the largest slums in Nigeria with over 600,000 people evicted (Sowemimo, 2016).

**Governance Innovations for a Mega-City**

The adoption of urbanisation as development strategy globally has further buttressed the cities' economic importance. However, the West African 'condition' – an unprecedented urbanization process insofar as it is driven by poverty and not by economic opportunities – requires and deserves different approaches. In a context like Lagos where already in the 1980s the infrastructure was insufficient to supply the population, let alone to maintain and extend it to keep up with the rapid population growth, tactical operations and projects may just be one of the ways out of the difficult overall situation (Hoelzel, 2016).

Long-term strategic planning has long been used to establish a range of principles and a focus for infrastructural investment to guide the location of urban development. In the earlier state-led period, the focus of strategic planning was on a comprehensive 'blueprint' approach. More recently, more liberal perspectives in governance have challenged the role of strategic planning frameworks in favour of market facilitation and project realisation (Moir, Moonen and Clark, 2014).

Developing solutions to urban challenges involves a number of interacting factors and actors, making desirable outcomes hard to achieve and predict. Maximising the potential of urban areas requires institutionalising mechanisms of coordination, planning and accountability among diverse stakeholders in a way that recognises the complexity of urban challenges (Avis, 2016). Increasingly, the urban crisis in Africa is being tackled by what has been called the "urban management" approach. In terms of how this is being promoted and used by leading international agencies such as the World Bank, it refers to a body of techniques, rules, and practices for the planning and organization of modern urban settlements. In essence, it is a professionalized approach to the management of these settlements. According to Stren (cited in Aina, 1997), it encompasses at least four important elements: (i) a concern to situate urban development projects in the context of city-wide and institutional considerations; (ii) a
concern to pay more attention to sources of local finance for more decentralized municipal government; (iii) a concern to devise alternative means of organizing and financing urban services such as water supply, public transport, electricity, sanitary services, and waste disposal; and (iv) a concern to seek and promote local community and participatory sources of support for urban services and infrastructure. Thus, future priorities should emphasize the following imperatives of sustainable development:

- Ensure effective, efficient and transparent public sector and public administration;
- Commit to sound economic policies and management;
- Sustain democratic governance that allows broad-based participatory decision-making and management;
- Improve local implementation capacity for all actors to empower them to play an effective role in sustainable urbanization;
- Mobilize external resources and more coordinated and concerted support for sustainable development (Alkali, 2005).
- For there to be sustained positive environmental sustainability in Lagos state, there must be a good policy to harmonise environmental utility with the needs of both present and future generations.

Also, a number of innovative approaches have emerged to help fill the identified gaps in this study and thus merit further exploration.

1. **Moving governance from voluntary co-operation to more integrated and enforced implementation**

Managing cities and urban growth is one of the defining challenges of the twenty-first century. If managed well, cities can act as engines of growth and provide inhabitants with better job opportunities and improved healthcare, housing, safety and social development (Avis, 2016). Unplanned urban growth may negatively affect economic and social well-being, contributing to congestion, poor housing, pressure on limited public services, air and water pollution and associated health issues (Mitlin & Satterthwaite, 2012). This is the essence of urban governance, which deals with the process by which governments (local, regional and national) and stakeholders collectively decide how to plan, finance and manage urban areas. It also influences whether the poor benefit from economic growth, and determines how they bring their influence to bear and whether political and institutional systems, processes and mechanisms facilitate inclusive and pro-poor decisions and outcomes ((Devas et al., 2004: 1). It involves a continuous process of negotiation and contestation over the allocation of social and material resources and political power. It is not just about the formal structures of city government but encompasses a host of economic and social forces, institutions and relationships, formal and informal(Avis, 2016).
The failure of past strategic urban renewal policies to address the multifaceted problems created by slums in Lagos metropolis calls for a different approach (Adejumo, Olajide & Bishi, n.d). Friedmann (1969) asserts that innovation, social transformation and political transformation which are the three basic processes of development are closely linked to the urbanization process. The urbanization process tends to reinforce developmental change through increasing communication, enhanced interconnectedness and a change in the pattern of social organization.

b. Investment Policy

Major demographic and spatial shifts in population and economic activities are likely to continue indefinitely to shape and reshape our cities and our urban systems. An effective response thus requires a better understanding of these long-range shifts of market forces and activity, and of the capacity to influence them through public policy. An essential aspect of such policy is a continuous national effort to equalize the levels and burdens of social welfare and of urban services and amenities. This would pave the way for flexible and timely responses to change, hasten the processes of spatial and social transition, and avoid going against the tide by reinforcing the status quo (The United Nations University, 1997).

c. Effective Inter-Governmental Relations

Governance for an urban culture of sustainability is not possible without local power to decide and financing to support it. Cities and metropolitan regions are two among all levels of government. Decentralization entails apportioning appropriate mandates and secure financial resources to the relevant levels of government. About issues that cross city borders in an area, networked cities have to recentralize the decision-making power to institutions of metropolitan governance. The local level is the level closest to people, their needs and their knowledge. It is the level of implementation of sustainable development policies in the form of urban infrastructure, basic services and land use and mobility planning. Taxation, cross-subsidies and user fees at local, metropolitan and national level can support sustainable development and curb unsustainable consumption, if they are designed with these goals in mind (UNDESA, 2012).

According to a KPMG report, African cities are fast emerging as centres of entrepreneurship, innovation, creativity and invention. This presents a clear opportunity as well as a major challenge to the key stakeholders to be proactive in tackling the current needs while being visionary about building the future (Okonjo, 2017). The miracle cure, as defined aptly by Professor Collier, is in the national government working with state governments to develop enabling policies, strong institutions, well-resourced and accountable administrative systems while working closely with well-informed and engaged citizens (ibid). Given its status as Nigeria’s major and most metropolitan state, Lagos deserves special consideration from the Federal Government, similar to the 13% derivation concession given oil-
producing states. The city is home to Nigerians from all parts of the country and the rate of infrastructural decay in the state owes a lot to the massive inflow of people into it (Fasan, 2017).

d. Economic Development for a Sustainable City

Cities are the main drivers of the national economy. Their infrastructure and service delivery are essential indicators of the investment environment and the state of the economy (Welgemoed & Viljoen, 2013). The process towards sustainable cities starts with profound analyses of the past and present culture of the city. It builds on an inclusive and holistic vision, applies integrated planning and transparent governance, and monitors implementation rigorously (Taipale, 2012). As the share of Lagos residents living in poor and underserviced neighbourhoods includes two-thirds of the overall population, low-tech, flexible, low-cost and strategic yet precise interventions should seriously be considered – opposite to the often implemented top-down, investment intensive and heavily donor-driven and/or elite-driven big-infrastructure solutions as they are favoured by the World Bank and similar institutions, especially as they have mostly failed in West-Africa (Hoelzel, 2016). Thus, according to Adediran (cited in Gbonegun, 2017), “improved governance and standard of living of the people through effective service delivery, efficient use of physical infrastructures that support healthy economic, social, and cultural development” are needed with a view to balancing area conditions – good environment, economic growth, and community cohesion within the area (area sustainable development). This is to further reposition Lagos State because concerns for urban sustainability drive the development of various ecological-derived design concepts.

The ultimate goal of sustainable development is to make cities safe and pleasant places to work, live and raise children ‘without undermining the ability of future generations to do the same’ (Kraas et al, 2005). There are different solutions being canvassed by experts, some market based, some technological and some environmental in approach but none compares with sustainable development (Kraas et al, 2005). There is the need to strengthen economic and social development in harmony with nature preservation, particularly the development of small and medium enterprises in the field of traditional craftsmanship and tourism. Also, the state should create area conditions for reclamation and revitalization of derelict spaces in order to find places suitable for economic activities and leisure time activities.

e. Environmental Protection and Adaptation to Climate Change

Nigeria’s governments should focus on a combination of immediate and longer-term action. For the medium-term, basic infrastructure to seed functioning communities should be provided: roads, pipe-borne water, schools and hospitals. Also, state governments should be compelled to digitise their land registries and make them easily accessible to everyone. The long-term stuff would be the arduous task of revising Nigeria’s problematic land law — backed by a decades old military decree – which vests absolute control of land in the state governors (Ogunlesi, 2015).
Key to addressing climate change is competent, capable, and accountable urban governments that incorporate mitigation and adaptation measures in a holistic manner (Satterthwaite, 2008). Many measures require only minor adjustments to current practices – e.g. to building codes, land subdivision regulation, land-use management and infrastructure standards – and the sum of these over time can build resilience without high costs (ibid.). To address climate change, it is important to provide incentives for more sustainable choices at community and individual levels. Changing lifestyles and economies to adopt efficient, low-energy and environmentally sustainable solutions creates opportunities for innovation (DFID, 2010: 9). These, however, should not be seen solely as climatechange-driven initiatives, but as local economic development strategies that capitalise on the political and economic environment that climate change creates and the position of urban areas in low-carbon economies.

f. **Low-Emission Economy and Energy Efficiency**

By adopting globally proven policies on a low-emissions economy, government leaders can reduce greenhouse gas emissions, foster innovation and economic growth, bolster national security, improve public health, and put the world on a path to a liveable climate future (Harvey and Segafredo, 2014). However, reducing the amount of pollutants emitted from the municipal sector, resulting in improved air quality, cleaner environment and reduced risks to human health requires multi-directional technical and non-technical activities (Zawada and tarostka-Patyk, 2016). Improving energy efficiency is a key tool for reducing CO2 emissions, alongside energy conservation and low-carbon energy sources such as renewables and carbon capture and storage.

The state should create conditions for development of decentralized, effective and safe energy production from renewable environment-friendly resources, minimising the negative impacts and risks while ensuring the safe supply of various kinds of energy to the area. Studies (Schafer and Victor, 2000; Roberta and Sierra, 2007) reported that population and economic growth are major factors that influence transport demand. Increased transport demand significantly contributes to GHG emissions. Therefore, the state should create area conditions for higher safety and smoothness of transport, improvement of protection against noise and emissions and, with respect to this, create area conditions for environment friendly forms of transport (e.g., railway, bicycle lines). For industrial energy, an effective way to reduce industrial greenhouse gas emissions is to regulate the energy efficiency of ubiquitous, standardized equipment such as electric motors, pumps, and compressors.

g. **Spatial Development**

Several attempts have been made in the past (pre and post-colonial periods) to legislate the structuring of spatial development of Lagos. These attempts have yielded minimal positive results. This, perhaps, prompted the Lagos State Government to enact the 2010 URPD law (Agunbiade and Ewedairo, 2014). The purpose is to strengthen the spatial development of the state and provide a strategic framework for priority investments (strategic investments). The Lagos Sate Government is obviously alive to the
imperative of preparing appropriate development plans and reforming the land use law and land rights to ensure effective development control. The concept of sustainable development in spatial planning leads necessarily to an efficient management of the resources, especially land.

h. **Strengthening the levels of human capital and citizen participation**

In every democracy, the city residents demand to be heard and to participate in the decision-making process on matters that affect their lives. Good urban governance requires that elected officials should be accountable for their actions. The driving force in promoting transparency and accountability is citizen participation which, at the level of municipal government in Nigeria, is still seldom cultivated (Abiodun, 2017). There is no one top-down solution to urban sustainability but a wealth of bottom-up approaches instead. One of the strengths of cities in both poor and wealthier countries is the initiative and inventiveness of their citizens. Seizing this opportunity requires critical rethinking, application of innovative non-market solutions and the active involvement of all those concerned. One-way information does not fulfil the contemporary requirement for quality citizen involvement. People have to be given the possibility to become the key resource of cities. Citizens need supporting ‘infrastructure’: places for people to meet and get organized, an attentive media to communicate their concerns, and tools, processes and channels to create initiatives and communicate (UNDESA, 2012).

**Concluding Remarks**

The crucial goal of any society that intends to expand and grow is to create an environment suitable for human habitation, one that is socially alive and maintains communal infrastructure that supports its survival and existence. Hence, urban regeneration is urgently needed in getting our society out of decadence and projecting a unified front towards a rich culture and vibrant economy (Olumuyiwa, 2017). The situation in Lagos State requires the intervention of all stakeholders in land, environment, housing and urban development towards the resolution of the state’s flood, slum regeneration and housing crises. To sustain the current investment in time, effort and money, Agunbiade and Olajide (2016) suggest that governance should be seen from the perspective of each stakeholder committing to collaboratively make the city function optimally. In this regard, both the people (governed) and the government should focus attention on building institutions rather than individuals or office holders. This will allow for home-grown capacity with the ability to adopt best practices, develop infrastructure (social, physical and economic) and build resilience.

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Literacy in India: Progress and Inequality

Rajni Pathania

Abstract: In the present study, an attempt is made to examine the progress of literacy, literacy inequality and education inequality in India. Literacy inequality among male and females is examined over the period 1951 to 2011 by using census wise data. In this study, literacy inequality is investigated at national level. Literacy inequality is also compared between different states of India and also an attempt is made to compare inequality area wise (rural and urban). In this study education inequality is also measured at different levels of education i.e. primary, upper primary, higher secondary and higher education for the period 2005 to 2014. The results of the study indicate that literacy inequality has declined at state level, national level and also at urban and rural areas but in rural areas literacy inequality among females is still higher. The results also indicates that education inequality is high at higher education level as compared to primary, upper primary and higher secondary levels.

Keywords: literacy, inequality education, higher education

Introduction

Inequality exists in variety of forms of social differences like gender, age, education, religion and racial inequalities. Inequalities simply mean that certain parts of the population are discriminated against in terms of accessing resources. Education inequality is found in varying extent in all developing economies in general and particular in India. In India still many women are seen illiterate as compared to male, due to this other several problems arises because each problem is either directly or indirectly linked to another problem. Low rate of literacy is the main root of all other problems like unemployment, poverty, high population growth, child labour and female feticide. Increasing rate of literacy is a good indicator of development in every economy. In India, there is wide gap between the urban and rural areas, means in rural areas the rate of illiteracy is high and majority of population is dependent on agriculture sector, while in urban areas most of the people are working in secondary sector and are also more educated than rural area. There are wide literacy inequalities among the male and female population. According to the census 2011, the male literacy rate is 82.14 percent and female literacy rate is 65.46 percent and average literacy rate in India is 74.04 percent. It is quite impressive but the fact remains that after more than seventy years of the planned development of the economy, still 26 percent of the population remained illiterate and there is literacy inequality between female and male. One of the problems with inequality in literacy is it cuts off female from all those benefits that an educated female can have. Education inequality reduces the quality of human capital and is harmful for economic performance of the economy. Reduction in education inequality provides externalities like reduce child mortality level reduce fertility level and encourage the education for the next generation.

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In this light, we can say that investment in the education of female is a better investment in human capital than the investment in the education of men.

This paper highlights the overall inequality in male and female at different educational levels from 1951 to 2011. This paper focuses on the enrollment gap between male and female students in education institutions at primary, middle, senior secondary and higher education level. For this purpose we used data of total enrolment, women enrolment, and men enrolment at primary, middle, senior secondary and higher education level in India for the period 1951 to 2011. A lot of studies have been done on the different aspects of inequality at national and international level. A few studies have been taken for review: Castello and Domenech (2002) measured education inequality for 108 countries during the period 1960 to 2000. By Using cross-country data on human capital inequality this study concluded that most countries in the world have tended to reduce the education inequality. Siddhanta and Nandy (2004) analyzed the education inequality between male and female in India by using census data. The results of the decomposition analysis clearly indicated that both in the urban and rural sector, gender gap in equitable educational development are largely due to gender gap in average years of schooling. Sankar (2007) conducted a study on girls participation in elementary education by using data of National Sample Survey Organization's education and employment rounds since 1986 (1986/87, 1995/96, 1999/2000 and 2004/05). The analysis shows that the number of children participating in elementary education has improved, and the improvements are more visible among children from rural areas, educationally lagging states, girls and those from the socially and economically disadvantaged groups. Azam and Blom (2008) examined the attainment and access of tertiary (higher) education in India for the period 1983 to 2004. The results of this paper found that the gaps in enrollment remain sizable, but they have diminished over time, with the notable exception of the gap between rich and poor. Tomul (2009) studied the education inequality in Turkey during the period 1975 to 2000. The study found that during the study period, the average years of schooling in Turkey were below the world average and the level of education of men was higher than the women. Thomas (2011) Conducted a study to find educational inequality of 146 countries during 1950 to 2010. This study used gini index of education by 5year age intervals. The results of this study show that even educational inequality has been decline for the most countries but not in a uniform manner because it depends on age group, gender and development level for each country. Mahanta and Nayak (2013) examined the literacy gap and enrolment gap among male and female in North East India Meghalaya, Manipur, Mizoram, Tripura, Assam, Sikkim, Nagaland and Arunachal Pradesh. This study found that in northern eastern states inequality in literacy exists, means males were observed to be more literate than females. This study found that the literacy inequality was narrow in the states like Meghalaya, Mizoram and Nagaland but in Arunachal Pradesh and Assam the gender gap was wide in enrolment rate at different levels of education.

Objectives of the study
The general objective of this paper is to investigate the progress of literacy, literacy inequality and education inequality in India.

Specific objectives are;
1. To examine the literacy inequality between male and female at national level.
2. To investigate the state wise and area wise (Rural and Urban) literacy inequality in India.
3. To examine the education inequality at different levels of education i.e. Primary (I-V), Upper Primary (VI-VIII), Higher Secondary (IX-XII) and higher Education for the period 2005-2014.

Data sources and Technique
In this study we use literacy rate of male, literacy rate of female, total literacy rate, Gross Enrollment Ratio of Female, Gross Enrollment Ratio of male and total gross enrollment ratio. The present study is solely based on secondary data. The data of selected variables has been collected from different issues census of India and Educational Statistics at a Glance 2016.

To find the coefficient of inequality between male and female enrolment ratio, we adopt formula as follows:

\[ CIL = \frac{(LM-LF)}{L} \]

CIL refers to coefficient of literacy inequality,
LM refers to Literacy rate among male,
LF denotes to Literacy rate among female and L refers to total literacy rate.

\[ CIE = \frac{(EM-EF)}{E} \]

CIE refers to coefficient of inequality in Educational opportunities,
EM refers to enrolment ratio of male,
EF denotes to enrolment ratio of female and E refers to total enrolment ratio.

A positive coefficient denotes inequality against female, negative coefficient means inequality against male. High value Coefficient shows higher inequality, and lower value shows lower inequality.

Results
As per the census and available data literacy rate among males is very high in some states like Lakshadweep, Kerala, Mizoram, Goa and Tripura. The lowest literacy rate among males is 73.39 percent in Bihar. The literacy rate among females is very low in Rajasthan (52.66 %), Bihar (53.33), Jharkhand (56.21 %), J&K (58.01), Uttar Pradesh (59.26) and Arunachal Pradesh (59.57). In states like Rajasthan, Jharkhand, Bihar, J&K, UP, Chhattisgarh and Madhya Pradesh which are at the bottom of the list, total male as well as female literacy rate is low as compared to other states.

Table 1: Literacy in India, 1901-2011
<table>
<thead>
<tr>
<th>Period</th>
<th>Males</th>
<th>Females</th>
<th>Total</th>
<th>Coefficient of Inequality</th>
</tr>
</thead>
<tbody>
<tr>
<td>1901</td>
<td>9.83</td>
<td>0.69</td>
<td>5.35</td>
<td>1.708</td>
</tr>
<tr>
<td>1911</td>
<td>10.56</td>
<td>1.05</td>
<td>5.92</td>
<td>1.606</td>
</tr>
<tr>
<td>1931</td>
<td>15.59</td>
<td>2.93</td>
<td>9.50</td>
<td>1.332</td>
</tr>
<tr>
<td>1951</td>
<td>27.2</td>
<td>8.9</td>
<td>18.3</td>
<td>1.000</td>
</tr>
<tr>
<td>1961</td>
<td>40.4</td>
<td>15.3</td>
<td>28.3</td>
<td>0.887</td>
</tr>
<tr>
<td>1971</td>
<td>46.0</td>
<td>22.0</td>
<td>34.5</td>
<td>0.696</td>
</tr>
<tr>
<td>1981</td>
<td>53.4</td>
<td>28.5</td>
<td>41.4</td>
<td>0.601</td>
</tr>
<tr>
<td>1991</td>
<td>64.1</td>
<td>39.3</td>
<td>52.2</td>
<td>0.475</td>
</tr>
<tr>
<td>2001</td>
<td>75.8</td>
<td>52.1</td>
<td>65.4</td>
<td>0.362</td>
</tr>
<tr>
<td>2011</td>
<td>80.88</td>
<td>64.63</td>
<td>72.98</td>
<td>0.222</td>
</tr>
</tbody>
</table>

Source: Census of India

Table 2: Literacy in India (Rural and Urban), 1951-2011

<table>
<thead>
<tr>
<th>Period</th>
<th>Female</th>
<th>Male</th>
<th>Total</th>
<th>Coefficient of Inequality</th>
<th>Female</th>
<th>Male</th>
<th>Total</th>
<th>Coefficient of Inequality</th>
</tr>
</thead>
<tbody>
<tr>
<td>1951</td>
<td>4.87</td>
<td>19.02</td>
<td>12.1</td>
<td>1.169</td>
<td>22.33</td>
<td>45.6</td>
<td>34.59</td>
<td>0.673</td>
</tr>
<tr>
<td>1961</td>
<td>10.1</td>
<td>34.3</td>
<td>22.5</td>
<td>1.076</td>
<td>40.5</td>
<td>66</td>
<td>54.4</td>
<td>0.469</td>
</tr>
<tr>
<td>1971</td>
<td>15.5</td>
<td>48.6</td>
<td>27.9</td>
<td>1.186</td>
<td>48.8</td>
<td>69.8</td>
<td>60.2</td>
<td>0.349</td>
</tr>
<tr>
<td>1981</td>
<td>21.7</td>
<td>49.6</td>
<td>36</td>
<td>0.775</td>
<td>56.3</td>
<td>76.7</td>
<td>67.2</td>
<td>0.304</td>
</tr>
<tr>
<td>1991</td>
<td>30.17</td>
<td>56.96</td>
<td>36</td>
<td>0.744</td>
<td>64.05</td>
<td>81.09</td>
<td>67.2</td>
<td>0.254</td>
</tr>
<tr>
<td>2001</td>
<td>46.7</td>
<td>71.4</td>
<td>59.4</td>
<td>0.416</td>
<td>73.2</td>
<td>86.7</td>
<td>80.3</td>
<td>0.168</td>
</tr>
<tr>
<td>2011</td>
<td>57.93</td>
<td>77.15</td>
<td>66.77</td>
<td>0.288</td>
<td>79.11</td>
<td>88.76</td>
<td>84.11</td>
<td>0.115</td>
</tr>
</tbody>
</table>

Source: census of India

As per the analysis, the coefficient of inequality is highest in Bihar (0.5659), Jharkhand (0.5298), Rajasthan (0.5264) and Haryana (0.4830) i.e. the female literacy rate is very low as compared to male literacy rate in year 2001. The coefficient of inequality is low in Mizoram (0.043), Kerala (0.069), Meghalaya (0.092) and Nagaland (0.145) i.e. both male and female literacy rate is high in year 2001.

As per the analysis of coefficient in year 2011 the highest inequality (state wise) is in Rajasthan (0.409), Jharkhand (0.3222), Bihar (0.318) and J&K (0.303) and the lowest inequality is in Meghalaya (0.041), Kerala (0.042), Mizoram (0.043) and Nagaland (0.084).

As per the analysis the highest inequality in year 2001 was in state Bihar and lowest in equality was in state Mizoram. In year 2011 the highest inequality is in state Rajasthan while as lowest in equality is in state of Meghalaya.

From the above analysis it is evident that in socioeconomically backward states like Bihar, Chhattisgarh, Jharkhand, Madhya Pradesh, Orissa, Rajasthan, Utrakhand and Uttar Pradesh the literacy inequality among male and female is high however it has declined in year 2011 as compared to year 2001.
The coefficient of inequality in India declined over the period 1901 to 2011. In the year 1901 literacy inequality was 1.708 that means male literacy rate was high as compared to female literacy rate. Over the period of time the literacy inequality among male and female in India declined and was noticed at 0.222 in year 2011. Major changes in literacy inequality were noticed after year 1951. The reason for declining literacy inequality over the period of time may be effective government policies, Women empowerment, and accessibility to education, awareness and competition. Literacy inequality has declined both in rural and urban areas during 1951 to 2011; however literacy inequality is still high in rural areas as compared to urban areas.

Table 3: Effective literacy Rates by states in India and Inequality, 2001-2011

<table>
<thead>
<tr>
<th>State/union territory</th>
<th>2001</th>
<th></th>
<th></th>
<th>2011</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>female</td>
<td>Male</td>
<td>Total</td>
<td>CIE</td>
<td>Female</td>
<td>male</td>
</tr>
<tr>
<td>Andaman &amp; Nicobar Islands</td>
<td>75.2</td>
<td>86.3</td>
<td>81.3</td>
<td>0.137</td>
<td>82.4</td>
<td>90.3</td>
</tr>
<tr>
<td>Andhra Pradesh</td>
<td>50.4</td>
<td>70.3</td>
<td>60.5</td>
<td>0.329</td>
<td>59.1</td>
<td>74.9</td>
</tr>
<tr>
<td>Arunachal Pradesh</td>
<td>43.5</td>
<td>63.8</td>
<td>54.3</td>
<td>0.374</td>
<td>57.7</td>
<td>72.6</td>
</tr>
<tr>
<td>Assam</td>
<td>54.6</td>
<td>71.3</td>
<td>63.3</td>
<td>0.264</td>
<td>66.3</td>
<td>77.8</td>
</tr>
<tr>
<td>Bihar</td>
<td>33.1</td>
<td>59.7</td>
<td>47</td>
<td>0.566</td>
<td>51.5</td>
<td>71.2</td>
</tr>
<tr>
<td>Chandigarh</td>
<td>76.5</td>
<td>86.1</td>
<td>81.9</td>
<td>0.117</td>
<td>81.2</td>
<td>90</td>
</tr>
<tr>
<td>Chhattisgarh</td>
<td>51.9</td>
<td>77.4</td>
<td>64.7</td>
<td>0.394</td>
<td>60.2</td>
<td>80.3</td>
</tr>
<tr>
<td>Dadra &amp; Nagar Haveli</td>
<td>43</td>
<td>73.3</td>
<td>60</td>
<td>0.505</td>
<td>64.3</td>
<td>85.2</td>
</tr>
<tr>
<td>Daman &amp; Diu</td>
<td>70.4</td>
<td>88.4</td>
<td>81.1</td>
<td>0.222</td>
<td>79.5</td>
<td>91.5</td>
</tr>
<tr>
<td>Delhi</td>
<td>74.7</td>
<td>87.3</td>
<td>81.7</td>
<td>0.154</td>
<td>80.8</td>
<td>90.9</td>
</tr>
<tr>
<td>Goa</td>
<td>75.4</td>
<td>88.4</td>
<td>82</td>
<td>0.159</td>
<td>84.7</td>
<td>92.6</td>
</tr>
<tr>
<td>Gujarat</td>
<td>58.6</td>
<td>80.5</td>
<td>70</td>
<td>0.313</td>
<td>69.7</td>
<td>85.8</td>
</tr>
<tr>
<td>Haryana</td>
<td>45.7</td>
<td>78.5</td>
<td>67.9</td>
<td>0.483</td>
<td>65.9</td>
<td>84.1</td>
</tr>
<tr>
<td>Himachal Pradesh</td>
<td>67.4</td>
<td>85.4</td>
<td>76.5</td>
<td>0.235</td>
<td>75.9</td>
<td>89.5</td>
</tr>
<tr>
<td>Jammu &amp; Kashmir</td>
<td>43</td>
<td>66.6</td>
<td>55.5</td>
<td>0.425</td>
<td>56.4</td>
<td>76.8</td>
</tr>
<tr>
<td>Jharkhand</td>
<td>38.9</td>
<td>67.3</td>
<td>53.6</td>
<td>0.530</td>
<td>55.4</td>
<td>76.8</td>
</tr>
<tr>
<td>Karnataka</td>
<td>56.9</td>
<td>76.1</td>
<td>66.6</td>
<td>0.288</td>
<td>68.1</td>
<td>82.5</td>
</tr>
<tr>
<td>Kerala</td>
<td>87.9</td>
<td>94.2</td>
<td>90.9</td>
<td>0.069</td>
<td>92.1</td>
<td>96.1</td>
</tr>
<tr>
<td>Lakshadweep</td>
<td>80.5</td>
<td>92.5</td>
<td>86.7</td>
<td>0.138</td>
<td>87.9</td>
<td>95.6</td>
</tr>
<tr>
<td>Madhya Pradesh</td>
<td>50.3</td>
<td>76.1</td>
<td>63.7</td>
<td>0.405</td>
<td>59.2</td>
<td>78.7</td>
</tr>
<tr>
<td>Maharashtra</td>
<td>67</td>
<td>86</td>
<td>76.9</td>
<td>0.247</td>
<td>75.9</td>
<td>88.4</td>
</tr>
<tr>
<td>Manipur</td>
<td>60.5</td>
<td>80.3</td>
<td>70.5</td>
<td>0.281</td>
<td>70.3</td>
<td>83.6</td>
</tr>
<tr>
<td>Meghalaya</td>
<td>59.6</td>
<td>65.4</td>
<td>62.6</td>
<td>0.093</td>
<td>72.9</td>
<td>76</td>
</tr>
<tr>
<td>Mizoram</td>
<td>86.8</td>
<td>90.7</td>
<td>88.8</td>
<td>0.044</td>
<td>89.3</td>
<td>93.3</td>
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<tr>
<td>Nagaland</td>
<td>61.5</td>
<td>71.2</td>
<td>66.6</td>
<td>0.146</td>
<td>76.1</td>
<td>82.8</td>
</tr>
<tr>
<td>Odisha</td>
<td>50.5</td>
<td>75.4</td>
<td>63.1</td>
<td>0.395</td>
<td>64</td>
<td>81.6</td>
</tr>
<tr>
<td>Puducherry</td>
<td>73.9</td>
<td>88.6</td>
<td>81.2</td>
<td>0.181</td>
<td>80.7</td>
<td>91.3</td>
</tr>
</tbody>
</table>
Table 4: Gross Enrollment Ratios and Inequality in primary Upper primary and High Secondary Education, 2005-2014

<table>
<thead>
<tr>
<th>Year</th>
<th>Female</th>
<th>Male</th>
<th>Total</th>
<th>CIE</th>
<th>Female</th>
<th>Male</th>
<th>Total</th>
<th>CIE</th>
<th>Female</th>
<th>Male</th>
<th>Total</th>
<th>CIE</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>105.8</td>
<td>112.8</td>
<td>109.4</td>
<td>0.064</td>
<td>66.4</td>
<td>75.2</td>
<td>71.7</td>
<td>0.124</td>
<td>35.8</td>
<td>44.6</td>
<td>40.4</td>
<td>0.218</td>
</tr>
<tr>
<td>2006</td>
<td>108</td>
<td>114.6</td>
<td>111.4</td>
<td>0.059</td>
<td>69.6</td>
<td>77.6</td>
<td>73.8</td>
<td>0.108</td>
<td>36.8</td>
<td>45</td>
<td>41.1</td>
<td>0.200</td>
</tr>
<tr>
<td>2007</td>
<td>112.6</td>
<td>115.3</td>
<td>114</td>
<td>0.024</td>
<td>74.4</td>
<td>81.5</td>
<td>78.1</td>
<td>0.091</td>
<td>41.9</td>
<td>49.4</td>
<td>45.8</td>
<td>0.164</td>
</tr>
<tr>
<td>2008</td>
<td>114</td>
<td>114.7</td>
<td>114.3</td>
<td>0.006</td>
<td>76.6</td>
<td>82.7</td>
<td>79.8</td>
<td>0.076</td>
<td>43.5</td>
<td>51</td>
<td>47.4</td>
<td>0.158</td>
</tr>
<tr>
<td>2009</td>
<td>113.8</td>
<td>113.8</td>
<td>113.8</td>
<td>0.000</td>
<td>79</td>
<td>84.3</td>
<td>81.7</td>
<td>0.065</td>
<td>46.1</td>
<td>52.5</td>
<td>49.4</td>
<td>0.130</td>
</tr>
<tr>
<td>2010</td>
<td>116.3</td>
<td>114.9</td>
<td>115.5</td>
<td>-0.012</td>
<td>82.9</td>
<td>87.5</td>
<td>85.2</td>
<td>0.054</td>
<td>48.5</td>
<td>55.7</td>
<td>52.2</td>
<td>0.138</td>
</tr>
<tr>
<td>2011</td>
<td>107.1</td>
<td>105.8</td>
<td>106.5</td>
<td>-0.012</td>
<td>81.4</td>
<td>82.5</td>
<td>82</td>
<td>0.013</td>
<td>54.5</td>
<td>58.8</td>
<td>56.8</td>
<td>0.076</td>
</tr>
<tr>
<td>2012</td>
<td>107.2</td>
<td>104.8</td>
<td>106</td>
<td>-0.023</td>
<td>84.6</td>
<td>80.6</td>
<td>82.5</td>
<td>-0.048</td>
<td>56.5</td>
<td>57</td>
<td>56.8</td>
<td>0.008</td>
</tr>
<tr>
<td>2013</td>
<td>102.6</td>
<td>100.2</td>
<td>101.4</td>
<td>-0.024</td>
<td>92.8</td>
<td>86.3</td>
<td>89.3</td>
<td>-0.073</td>
<td>62.6</td>
<td>62.5</td>
<td>62.5</td>
<td>-0.001</td>
</tr>
<tr>
<td>2014</td>
<td>101.4</td>
<td>98.9</td>
<td>100.1</td>
<td>-0.025</td>
<td>95.3</td>
<td>87.7</td>
<td>91.2</td>
<td>-0.083</td>
<td>65.8</td>
<td>64.9</td>
<td>65.3</td>
<td>-0.013</td>
</tr>
</tbody>
</table>

Source: Educational Statistics at a Glance 2016

Table 5: Gross Enrollment Ratios and Inequality in Higher Education, 2005-2014

<table>
<thead>
<tr>
<th>Year</th>
<th>Female</th>
<th>Male</th>
<th>Total</th>
<th>CIE</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>9.4</td>
<td>13.5</td>
<td>11.6</td>
<td>0.353</td>
</tr>
</tbody>
</table>
The coefficient of inequality in education at primary level in 2005 was 0.064 that means more male student enrollment as compared to female student enrollment, which declined to 0.006 in 2008. In 2009 there was no education inequality among male and female at primary level. After 2009 the coefficient of inequality became negative that means at primary level more female students were enrolled as compared to male students.

At upper primary level the education inequality declined from year 2005 to 2011, thereafter the coefficient of inequality became negative that is more female enrollment at upper primary level in comparison to male student enrollment. At higher secondary level the education inequality declined from 2005 to 2012, thereafter the coefficient of inequality became negative that is more female enrollment ratio at higher secondary level in comparison to male enrollment. The education inequality is high at higher education level as compared to primary, upper primary and higher secondary level. At higher education level the education inequality has declined from 2006 to 2014 that means female enrollment ratio has increased from 2006 to 2014.

We can briefly summarize the conclusion that emerges from above analysis and the implication that follows, as under:

1. Inequality in literacy rate has narrowed down by 0.140 percent points from 0.362 percent points in 2001 to 0.222 percent point in 2011. There has been continuously declined in literacy inequality among females and males since 1961(around 0.667 percent points)
2. Literacy inequality also declined in both urban and rural areas but in rural areas inequality among females is still higher. Coefficient of literacy inequality in rural areas stands at 0.288 whereas in urban areas it stands at 0.115 in the year 2011.
3. The results indicate that since1951 literacy rate of females has improved compared to literacy rate of males. It reveals that females are not far behind males.
4. The results also depict that at primary, upper primary and higher secondary level, the enrollment is favorable to females, and means female enrollment has increased at primary, upper primary and higher secondary level. Literacy inequality reduced due to rapid increase in the number of educational institutions and implementation of government schemes like Sarva

<table>
<thead>
<tr>
<th>Year</th>
<th>Male</th>
<th>Female</th>
<th>Enrollment Ratio</th>
<th>Coefficient of Inequality</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>10</td>
<td>14.5</td>
<td>12.4</td>
<td>0.363</td>
</tr>
<tr>
<td>2007</td>
<td>10.7</td>
<td>15.2</td>
<td>13.1</td>
<td>0.344</td>
</tr>
<tr>
<td>2008</td>
<td>11.4</td>
<td>15.8</td>
<td>13.7</td>
<td>0.321</td>
</tr>
<tr>
<td>2009</td>
<td>12.7</td>
<td>17.1</td>
<td>15</td>
<td>0.293</td>
</tr>
<tr>
<td>2010</td>
<td>17.9</td>
<td>20.8</td>
<td>19.4</td>
<td>0.149</td>
</tr>
<tr>
<td>2011</td>
<td>19.4</td>
<td>22.1</td>
<td>20.8</td>
<td>0.130</td>
</tr>
<tr>
<td>2012</td>
<td>20.1</td>
<td>22.7</td>
<td>21.5</td>
<td>0.121</td>
</tr>
<tr>
<td>2013</td>
<td>22</td>
<td>23.9</td>
<td>23</td>
<td>0.083</td>
</tr>
<tr>
<td>2014</td>
<td>23.2</td>
<td>25.3</td>
<td>24.3</td>
<td>0.086</td>
</tr>
</tbody>
</table>

Source: Educational Statistics at a Glance 2016
Shiska Abhiyan, Right to Education act, Sakshar bharat mission for female literacy and Mid day meal.

References


Singulate Mean Age at Marriage in South Africa 1996-2016: Trends, Differentials and Implications

Leonard Ahuejere

Abstract: In South Africa, marriage incidence is undergoing changes. The Singulate mean age at marriage (SMAM) in the country is high and on the increase, as such a concern to the government and other stakeholders. The study used the census and survey data collected in South Africa between 1996 and 2016 to examine the trends and differentials in the SMAM age in the country. These are secondary cross-sectional data collected at four different points in time across the country by Statistics South Africa (de-facto), using the (PAPI) and (CAPI) modes. The Singulate Mean age at Marriage (SMAM) was used as a measure of timing at marriage in the study. This was achieved using the John Hajnal (1953) estimation method technique. Controls were made for province, population group, levels of education in South Africa. Results from the study indicates that SMAM age in South Africa is high, maintaining a slightly increasing pattern over the years. The average mean age was 31.6 years for male, 28.9 years for female and 31.2 years for South Africa. Thus, indicating that the male SMAM age is higher than that of the female and the female marry a little earlier than the male. Also, that marriage does not take place at very early ages (i.e below 25 years) for both sex in South Africa as both couples marry late compared to traditional African society. Compared to other population groups the black Africans has the highest SMAM age and at 34.7 years, Kwazulu-Natal recoded the highest mean age in 2016. Over all, age differentials between sex seems to be more pronounced by educational levels and population groups, while differentials between years tends to decrease negatively in few cases for all controlled characteristics in the study. The study recommending that findings in the study be considered in all programme and policy development around family formation incidences in South Africa.

Keywords: Singulate mean age at marriage, population group, education, South Africa

Background

Also known as the timing at marriage (age at marriage), the Singulate mean age at marriage (SMAM) is an estimate of the average number of years lived in a single state by persons married before age 50. It is a robust measure of the years of being single before marriage and is calculated for both male and female and the country. As a universal phenomenon and an important marriage status incidence, the SMAM age is a good indicator of age of first birth, fertility levels and consequently, family size (Narumon, 2001; Palamuleni et al, 2007; Udjo, 2003; Wong, 2005). These are especially so, assuming marriage is the true context of having children (Udjo, 2001) According to Narumon, (2001), the SMAM age is also “important for social security researchers and actuaries involved in the design of second-to-die life insurance policies and last survivor annuities, or in the pricing of healthcare policies such as nursing home and long-term care” (Narumon, 2001).

* The views expressed in this essay are, unless otherwise stated, those of the author and not those of Statistics South Africa or its management.

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Literary evidence indicates that SMAM age is not only in a constant transition and but also on an increasing trajectories (Narumon, 2001; Palamuleni and Palamuleni, 2011; Victoria et al, 2006). These is so as people in the present time have the more right and freedom in choosing marriage partners and even more freedom in getting out of marriage (separation/divorcing) without any societal stigma (punity). A development associated to globalization, modernizations, urbanisation, educational development, etc (Amoateng, 2004; Narumon, 2001; Palamuleni and Palamuleni, 2011; Victoria et al, 2006), all leading to social and cultural influences and perpetuating delay, separation and dissolution of marriages.

Globally, statistics from the United Nations (UN), covering 156 countries suggest an average SMAM age near thirty (30) years for female and slightly above that for the male population (Narumon, 2001). Also, in consistent with this pattern, the mean ages at marriage in South Africa is also said to be high and rising gradually. According to Palamuleni and Palamuleni, (2011), this development is so as South Africa is currently “characterized by late marriage as well as substantial numbers delaying marriage until into their 30s” (Palamuleni and Palamuleni, 2011). However, while Pillay (2018) insist that these levels in the country has only increased since 2002, Palamuleni and Palamuleni (2011) observed that these developments are so with variation by population group in the country. In all, further supporting the notion that couples in South Africa are not only delaying marriage, but more or less, feeding into the global idea that marriage is perpetually shifting among the millennials in the country (Pillay, 2018).

Despite these facts, literature evidence indicates paucity of studies around marriage pattern incidences in South Africa in recent time. This development is so especially in the research of age at first marriage in the country over time. Based on these narratives, this study will therefore explore the trends and differentials in the Singulate mean age at marriage (SMAM) in South Africa, between 1996 and 2016 and highlight on their implications.

**Method**

The study used the census and community survey (CS) data collected in South Africa between 1996-2016 to examine the trends and differentials in the timing at marriage in the country. These are secondary cross-sectional data collected at four different points in time across the country by Statistics South Africa (de-facto). The 1996 to 2011 data were collected using the traditional Paper-and-Pencil Interviewing (PAPI) mode, while the 2016 data was collected using the Computer-assisted personal interviewing (CAPI) mode. The Singulate Mean age at Marriage (SMAM) was used as a measure of timing at marriage in the study. This was achieved using the John Hajnal (1953) estimation method technique. In the study, estimates were derived for province, population group, levels of education and for South Africa. The SuperCross statistical software was used in running the data and findings were expresses in charts and tables.
Results

SMAM/Age at First Marriage in South Africa, 1996-2016

Table 1: Trends in the Singulate Mean Age at Marriage (SMAM), Province by Sex and in South Africa 1996-2016

<table>
<thead>
<tr>
<th></th>
<th>Male</th>
<th>Female</th>
<th>South Africa</th>
</tr>
</thead>
<tbody>
<tr>
<td>Western Cape</td>
<td>29.0</td>
<td>29.5</td>
<td>29.8</td>
</tr>
<tr>
<td>Eastern Cape</td>
<td>32.0</td>
<td>32.7</td>
<td>32.5</td>
</tr>
<tr>
<td>Northern Cape</td>
<td>29.8</td>
<td>30.4</td>
<td>31.0</td>
</tr>
<tr>
<td>Free State</td>
<td>27.6</td>
<td>29.4</td>
<td>30.3</td>
</tr>
<tr>
<td>KwaZulu-Natal</td>
<td>32.3</td>
<td>32.5</td>
<td>33.2</td>
</tr>
<tr>
<td>North West</td>
<td>30.6</td>
<td>31.5</td>
<td>31.5</td>
</tr>
<tr>
<td>Gauteng</td>
<td>29.7</td>
<td>30.2</td>
<td>30.2</td>
</tr>
<tr>
<td>Mpumalanga</td>
<td>30.4</td>
<td>30.9</td>
<td>31.9</td>
</tr>
<tr>
<td>Limpopo</td>
<td>30.3</td>
<td>30.9</td>
<td>31.8</td>
</tr>
<tr>
<td>South Africa</td>
<td><strong>30.3</strong></td>
<td><strong>30.9</strong></td>
<td><strong>31.2</strong></td>
</tr>
</tbody>
</table>
Table 2: Trends in the Singulate Mean Age at Marriage (SMAM), Population Group by Sex and in South Africa 1996-2016

<table>
<thead>
<tr>
<th></th>
<th>Male</th>
<th>Female</th>
<th>South Africa</th>
</tr>
</thead>
<tbody>
<tr>
<td>Black Africans</td>
<td>31.2  31.6  34.3  28.5</td>
<td>28.6  28.3  30.8  29.8</td>
<td>30.1  30.0  32.6</td>
</tr>
<tr>
<td>Coloured</td>
<td>28.2  28.9  29.6  32.0</td>
<td>27.1  27.2  27.3  29.8</td>
<td>27.6  28.0  28.4  30.9</td>
</tr>
<tr>
<td>Indian/Asian</td>
<td>26.7  27.5  28.5  31.3</td>
<td>23.5  24.4  25.4  27.7</td>
<td>25.1  26.0  27.0  29.6</td>
</tr>
<tr>
<td>White</td>
<td>26.8  27.3  27.5  29.5</td>
<td>24.4  25.0  25.1  26.2</td>
<td>25.5  26.2  26.3  27.9</td>
</tr>
</tbody>
</table>

Table 3: Trends in the Singulate Mean Age at Marriage (SMAM), H/level of education by sex and in South Africa, 1996-2016.

<table>
<thead>
<tr>
<th></th>
<th>Male</th>
<th>Female</th>
<th>South Africa</th>
</tr>
</thead>
<tbody>
<tr>
<td>No schooling</td>
<td>30.9  31.5  31.0  34.3</td>
<td>27.2  27.3  26.3  30.2</td>
<td>28.9  29.2  28.8  32.3</td>
</tr>
<tr>
<td>Primary</td>
<td>30.8  31.2  31.7  34.4</td>
<td>27.3  27.1  26.3  28.8</td>
<td>29.1  29.2  29.3  32.0</td>
</tr>
<tr>
<td>Secondary</td>
<td>30.6  31.1  31.6  34.3</td>
<td>28.5  28.8  28.7  31.1</td>
<td>29.5  29.9  30.2  32.7</td>
</tr>
<tr>
<td>Tertiary/Higher</td>
<td>28.4  29.8  30.2  32.2</td>
<td>27.0  28.2  27.9  29.9</td>
<td>27.7  29.9  30.2  32.7</td>
</tr>
</tbody>
</table>
Differentials in the SMAN age in South Africa, 1996-2016

**Figure 1a: Provincial differential Patterns by Sex**

<table>
<thead>
<tr>
<th>Year</th>
<th>Western Cape</th>
<th>Eastern Cape</th>
<th>Northern Cape</th>
<th>Free State</th>
<th>Kwazulu Natal</th>
<th>Gauteng</th>
<th>Mpumalanga</th>
<th>Limpopo</th>
<th>South Africa</th>
</tr>
</thead>
<tbody>
<tr>
<td>1996 (Sex diff)</td>
<td>1.7</td>
<td>3.9</td>
<td>2.3</td>
<td>1.4</td>
<td>2.3</td>
<td>2.2</td>
<td>2.6</td>
<td>2.9</td>
<td>2.3</td>
</tr>
<tr>
<td>2001 (Sex diff)</td>
<td>2.2</td>
<td>4.0</td>
<td>2.3</td>
<td>2.5</td>
<td>2.3</td>
<td>2.8</td>
<td>3.3</td>
<td>2.9</td>
<td>3.1</td>
</tr>
<tr>
<td>2011 (Sex diff)</td>
<td>2.7</td>
<td>3.5</td>
<td>2.6</td>
<td>3.2</td>
<td>2.6</td>
<td>4.3</td>
<td>3.6</td>
<td>2.9</td>
<td>3.3</td>
</tr>
<tr>
<td>2016 (Sex diff)</td>
<td>2.5</td>
<td>3.8</td>
<td>2.3</td>
<td>2.8</td>
<td>3.0</td>
<td>4.1</td>
<td>3.4</td>
<td>3.3</td>
<td>3.2</td>
</tr>
</tbody>
</table>

| Year Dif (1996-2001) | 0.3 | 0.7 | 0.4 | 1.0 | 0.7 | 1.8 | 0.0 | 0.7 | 0.8 | 0.6 |
| Year Dif (2001-2011) | 0.2 | 0.2 | 0.4 | 0.7 | 0.1 | -0.2 | -0.4 | 0.8 | 1.1 | 0.3 |
| Year Dif (2011-2016) | 2.7 | 2.7 | 1.6 | 2.2 | 2.8 | 2.4 | 2.9 | 2.2 | 2.1 | 1.0 |

**Figure 1b: Provincial differential Patterns by Year**

<table>
<thead>
<tr>
<th>Year</th>
<th>Western Cape</th>
<th>Eastern Cape</th>
<th>Northern Cape</th>
<th>Free State</th>
<th>Kwazulu Natal</th>
<th>Gauteng</th>
<th>Mpumalanga</th>
<th>Limpopo</th>
<th>South Africa</th>
</tr>
</thead>
<tbody>
<tr>
<td>1996 (Sex diff)</td>
<td>2.7</td>
<td>1.1</td>
<td>3.2</td>
<td>2.4</td>
<td>5.5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2001 (Sex diff)</td>
<td>3.0</td>
<td>1.7</td>
<td>3.1</td>
<td>2.3</td>
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</tr>
<tr>
<td>2011 (Sex diff)</td>
<td>3.5</td>
<td>2.3</td>
<td>3.1</td>
<td>2.4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2016 (Sex diff)</td>
<td>3.5</td>
<td>2.2</td>
<td>3.6</td>
<td>3.3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Figure 2a: Pop grp differential Patterns by Sex**

<table>
<thead>
<tr>
<th>Group</th>
<th>Black Africans</th>
<th>Coloured</th>
<th>Indian/Asian</th>
<th>White</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>1996 (Sex diff)</td>
<td>2.7</td>
<td>1.1</td>
<td>3.2</td>
<td>2.4</td>
<td>5.5</td>
</tr>
<tr>
<td>2001 (Sex diff)</td>
<td>3.0</td>
<td>1.7</td>
<td>3.1</td>
<td>2.3</td>
<td></td>
</tr>
<tr>
<td>2011 (Sex diff)</td>
<td>3.5</td>
<td>2.3</td>
<td>3.1</td>
<td>2.4</td>
<td></td>
</tr>
<tr>
<td>2016 (Sex diff)</td>
<td>3.5</td>
<td>2.2</td>
<td>3.6</td>
<td>3.3</td>
<td></td>
</tr>
</tbody>
</table>

**Figure 2b: Pop grp differential Patterns by Year**

<table>
<thead>
<tr>
<th>Group</th>
<th>Diff (1996-2001)</th>
<th>Coloured</th>
<th>Indian/As</th>
<th>Whites</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diff (1996-2001)</td>
<td>0.3</td>
<td>0.4</td>
<td>0.9</td>
<td>0.7</td>
</tr>
<tr>
<td>Diff (2001-2011)</td>
<td>0.1</td>
<td>0.4</td>
<td>1.0</td>
<td>0.1</td>
</tr>
<tr>
<td>Diff (2011-2016)</td>
<td>2.6</td>
<td>2.5</td>
<td>2.6</td>
<td>1.6</td>
</tr>
</tbody>
</table>
Figure: 3a Edu Level differential Patterns by Sex

<table>
<thead>
<tr>
<th>Year</th>
<th>No schooling</th>
<th>Primary</th>
<th>Secondary</th>
<th>Tertiary /Higher</th>
</tr>
</thead>
<tbody>
<tr>
<td>1996 (Sex Dif)</td>
<td>3.7</td>
<td>3.5</td>
<td>2.1</td>
<td>1.4</td>
</tr>
<tr>
<td>2001 (Sex Dif)</td>
<td>4.2</td>
<td>4.1</td>
<td>2.3</td>
<td>1.6</td>
</tr>
<tr>
<td>2011 (Sex Dif)</td>
<td>4.7</td>
<td>5.4</td>
<td>2.9</td>
<td>2.3</td>
</tr>
<tr>
<td>2016 (Sex Dif)</td>
<td>4.1</td>
<td>5.6</td>
<td>3.2</td>
<td>2.3</td>
</tr>
</tbody>
</table>

Figure: 3b Edu Level differential Patterns by Year

<table>
<thead>
<tr>
<th>Year diff</th>
<th>No schooling</th>
<th>Primary</th>
<th>Secondary</th>
<th>Tertiary /Higher</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yr dif (1996-2001)</td>
<td>0.7</td>
<td>0.1</td>
<td>0.4</td>
<td>1.3</td>
</tr>
<tr>
<td>Yr dif (2001-2011)</td>
<td>-0.4</td>
<td>0.1</td>
<td>0.3</td>
<td>0.1</td>
</tr>
<tr>
<td>Yr dif (2011-2016)</td>
<td>3.5</td>
<td>2.7</td>
<td>2.5</td>
<td>2.0</td>
</tr>
</tbody>
</table>
Discussions
The study examined the trends and differentials in the Singulate Mean Age at Marriage (SMAM) i.e. age at first marriage in South Africa, using the census and community survey (CS) data collected between 1996 and 2016 and highlighted on their implications. Distinctively, the result from the study shows that South Africa mean age at marriage is very high and maintained an increasing pattern over the years, which is a concern. In South Africa, the SMAM age was 30.3 years in 1996. This increased to 31.2 years in 2011 and 32.2 years in 2016. The result also shows that the highest SMAM age for male (33.8 years) and female (30.6 years) in South Africa was recorded in 2016, and the lowest SMAM age for male (30.3) and female (27.9) was recorded in 1996.

This high and increasing pattern observed in the study is consistent with findings from early studies around family formation incidence in South Africa such as Amoateng (2004), Palamuleni (2010), Udjo (2010), Palamuleni and Palamuleni (2011), etc. The result also shows that the male age at first marriage is generally higher than the female in the country, indicating that the female South Africans marry earlier than male South African and both sex marry late, compared to traditional societies in sub-Saharan Africa. In other words, indicating that marriage does not take place at very early ages (i.e below 25 years) in South Africa as it is the case with traditional African society. And further supports the fact established by studies such as Palamuleni (2010), Palamuleni and Palamuleni (2011), Udjo (2004), etc in their earlier studies. Specifically, Palamuleni and Palamuleni (2011) observed that South Africa mean age at marriage “is characterized by late marriage as well as substantial numbers delaying marriage until into their 30s” (Palamuleni and Palamuleni, 2011).

The result also showed that the patterns observed at the national level were consistent at the provincial level, although with considerable variation. This is so as the result shows that KwaZulu-Natal (34.7), followed by Eastern Cape (33.3 years) have the overall highest years and the Free State (27.1 years) having the least. This pattern is consistent with the findings of Palamuleni and Palamuleni (2011) in an earlier study, which found Kwazulu-Natal as the province having the highest SMAM age. Also, control for sex at the provincial level indicates a similar pattern, as a closer examination indicates that men (36.3 years) and women (33.3 years) in Kwazulu-Natal, followed by Eastern Cape has the overall highest mean age at marriage in South Africa.

In the study, results of provincial differentials by sex indicates that South Africa has an increasing age difference patterns in most cases. The study found that the deference increased from 2.4 to 3.2 between 1996 and 2016, remaining constant between 2011 and 2016. The result also found that this pattern is consistent with provinces such as Western Cape, Free State, North West, Gauteng and Mpumalanga. The study also found that the Northern Cape and Kwa-Zulu Natal has a constant age different pattern between 1996 and 2001 and an increase, between 2001 and 2011. On the other hand, provinces such as Eastern...
Cape and Limpopo experienced a decrease age differential between 2001 and 2011. In South Africa, the result shows that differentials by sex seems to be more prominent in Gauteng closely followed by Mpumalanga. Specifically, at a differential of 4.3 in 2011 and 4.1 in 2016, Gauteng recorded the highest differential, while at 1.7, the Western Cape province recorded the least in 1996. On average, the result shows that sex differentials in South Africa has been increasing progressively in the country, with a current differential peak of 3.2 years.

Provincial differentials by year show that South Africa has an inconsistent year difference pattern, decreasing from 0.6 and increasing slightly to 1 between 2011 and 2016. This pattern is also found to be consistent in Western Cape, Eastern Cape, Free Sate and KwaZulu-Natal. Mpumalanga and Limpopo recoded a constant increasing pattern, while North-West (-0.2) and Gauteng (-0.4) recoded a negative deferential; decline between 2001 and 2011. With the exception of 2011-2016 year differential, the result indicated that the provincial differentials in SMAM age over the years are not significant (distinct) in all provinces in South Africa.

The result also shows that all population groups in South Africa has a relatively high SMAM age, thus indicating that marriage is also late among all population group in South Africa. In South Africa, the result shows that the black Africans reported the highest age (32.6 yrs) in 2016, and the white the least (25.5 yrs) in 1996. These patterns are also consistent controlling for sex in the country. This finding is consistent with the findings made by Ziehl (2001) which suggest that the black African population group generally marry late. A development, associated to their cultural belief in terms of their understanding of marriage and or strict interpretation of what marriage is.

Also, in support of these, Palamuleni and Palamuleni (2011) in an earlier study found that the “mean age at first marriage is very late among Africans and Coloured males and females (above 27 years), and a moderately high mean age at first marriage among Indians and whites (24-27 years)” (Palamuleni and Palamuleni, 2011). According to the authors, this development is associating to the wide regional variations in economy, culture and living conditions (ibid). Also, although these findings are consistent with an earlier study by Palamuleni (2010), which found that Africans marry youngest at an average age of 30.8 years. It is however, not in consistent with a much earlier study by Chimere-Dan (1998), which found that whites in South Africa marries at “an average age of 20.9 while Africans marry youngest at an average age of 18.9 years” (Palamuleni, 2010; Chimere-Dan, 1998).

The result of population group differentials by sex shows that all the population groups has increasing age different pattern between the years. At 5.5 years, the result shows that the differentials of other population group is an outlier. However, overall, the coloured population has the least differentials between sex (1.1) in 1996 while the Indian/Asian (3.6) followed by the black Africans (3.5 years) has the highest in 2011 and
2016. Differentials by year shows that black population group registered a negative decline (-0.1) between 2001 and 2011, compensating with a sharp increase between 2011 and 2016. The coloured and Indians/Asian registered a slightly increase over the years, while that white population recoded a decline (0.1) between 2001 and 2011, compensating with a sharp increase (1.6 yrs) between 2011 and 2016. Although not in all cases, this findings partially supports the finding from earlier studies in South Africa which insist that age at first marriage is increasing for all the population groups in the country over the years (Palamuleni, 2010; Udjo, 2004). However, negates the notion which insist that Africans and coloureds have the highest increase and whites and Indian/Asians the lowest increase (Palamuleni, 2010).

Also, control for level of education also reveals that the age at first marriage in South Africa is high. This so irrespective of the levels of education. Also, a closer examination seams to suggest that the population with secondary and tertiary/higher education records the highest level of SMAM age in the country across board. Therefore supporting the notion that education is associated with late marriage as people with higher education tend to marry late.

This is so, as the result suggest that level of education increases, the SMAM age in South Africa tends to increase slightly in the country. In consistent with earlier findings, the result also shows the SMAM age for male is higher than the female, irrespective of the level of education.

The result of highest levels of education differentials by sex shows that with the exception of those with no schooling in 2016, all other educational levels differentials maintained a constant increasing pattern over the years between 1996-2016. Therefore, justifying the notion that education is associated to age at first marriage in South Africa. The population with tertiary/higher education level (1.4 years) has the least difference between male and female in 1996, while those with primary (5.4 years) followed by those with no schooling (4.7 years) has the highest difference in 2011 respectively. Sex difference is more significant (pronounced) among those with no schooling and primary education levels, compared to other levels. Also, result of differentials over years shows that while those with no schooling maintained a negative decline from 0.7 to -0.4, all others maintained a consistent age decline pattern. Overall, the highest decline over the year was recoded among those with no schooling (3.5), followed by those with primary (2.7) in 1996.

In summary, results from the study indicates that South Africa has a high SMAM age, which has maintained a slightly increasing pattern across board for both sex over the years. A finding consistent with early studies in the country. The result also shows that the male SMAM age is generally higher than the female SMAM age in the country. Thus, indicating that the female marry a little earlier than the male. And in all, that marriage does not take place at very early ages (i.e below 25 years) for both sex in South Africa as both couples marry late in South Africa compared to traditional African society. Specifically, Kwazulu-Natal recoded the highest mean age, with the highest (34.7 years) recoded in 2016 and the black Africans has
the highest SMAM age compared to other population groups in the country. Overall, age differentials between sex seems to be more pronounced by educational levels and population groups, while differentials between years tends to decrease negatively in few cases for all controlled characteristics in the study.

Broadly, the overall finding of the study are in consistent with those made by earlier studies in the southern African context. For example, Palamuleni (2010) in reference to Udjo (2002) in an earlier study observed that the age at first marriage values for South Africa give the impression that South Africa has about the highest mean age at first marriage in the world, comparing favourably with those of neighboring countries (Palamuleni, 2010). Also that marrying late (above age 25) seems to be a common feature of modern societies and as well as typical Southern African societies such as South Africa, Namibia, Botswana (ibid). This study demonstrates that this assertion are consistent, irrespective of the province, population group and level of education in the South Africa context. Other studies such as those carried out by Rakgoasi and Gaise (1999) in Botswana, and Shemeikka, et al (2005) in Namibia also had findings consistent with these patterns observed in South Africa.

Implications, Conclusions and Recommendation

In South Africa, demographic thinking suggest that these SMAM age has demographic and socio-economic implications. Firstly, the reality of late marriage in South Africa donates strong negative implications. Late age at marriage results to postponement of child bearing, shortening of reproductive life of a woman and late age at childbearing for women in South Africa. Also, it implies lower chance of fertility among women and distortion of age structure in the country. Demographic implication dictates that lower chance of child bearing (fertility) brings about decline in total fertility rate (TFR) as women are not able to have the true number of children they are designed to have. This development eventually results to decline in the overall population and other socio-economic distortion at the long run. This development is especially so, assuming that marriage is the true context for having children (Udjo, 2001).

Clearly, late age at marriage implies that many marriageable South Africans adults are postponing marriage and that the percentage who will not be married by the end of their reproductive age will be fairly high (Palamuleni, 2010). A development not desirable, as such a concern. Biological thinking also suggest that late age at marriage as it is the case in South Africa, has the implication of exposing women to higher risk of child bearing, increased maternal mortality and after health complications (disability) resulting from giving birth in the country.

In line with earlier study (Palamuleni, 2010), this study also found that the difference between male and female mean age at marriage (i.e. spousal differences) is not consistent with traditional African society expectation. However, looking at the positive side, Palamuleni (2010), argued that the demographic implication of this include better spouse communication (especially in the area of contraceptive use and
parity, etc), more stable relationships, higher commitment to marriage, low divorce rate, etc. Therefore, Palamuleni (2010) insist that the fact that South African women are slow to getting married. However, “once they tie the knot they tend to be committed to the institution of marriage” (Palamuleni, 2010; Amoateng, 2004). Based on these understandings, the study therefore concludes by recommending that all findings in the study be considered in all programme and policy development around family formations incidence in South Africa.

References:


Community Participation in Tsunami Housing Rehabilitation Project in Kerala, India

K. M. Muhammed Anil¹ and T. Sundara Raj²

Abstract: Though Kerala coast was considered as a safe zone as far as Tsunami hazards are concerned, the impacts of the Tsunami in 2004 were felt all along the coast of Kerala. The Tsunami caused deaths, damages, injuries and also made thousands of people homeless. A total of 2.8 lakhs persons were evacuated and accommodated in 290 relief camps across the various coastal regions. Fishermen communities were the most affected segment. The focus of this article is the people’s participation in Housing Tsunami Rehabilitation Programme implemented for the victims of Asian Tsunami in 2004 at Alappadu Panchayath of Kollam district, Kerala. In post Tsunami phase housing reconstruction was one of the big challenges. Therefore, the Government devised a project for reconstruction using both own fund and with support of the civil society organisations. Thus affected people were rehabilitated in new places by constructing the houses both by the Non-Governmental Organisations [NGOs] and Government Organisations [GOs] in a phased manner. This study is intended to explore the participation of the stakeholders and its impact on that housing rehabilitation project. The article based on the field level study is analysing the interplay between people’s participation and Social capital in a wider but specific frame of various related components.

Keywords: Tsunami, People’s participation, Instrumental organisations

Introduction

This article is based on the field level study conducted in Alappadu Panchayath of Kollam District of Kerala State where the Asian Tsunami hit hard in 2004. That devastating Tsunami occurred due to an earthquake in the Indian Ocean in December 2004 that destroyed communities, family networks, homes and livelihoods of coastal people in the area. The post-tsunami Housing rehabilitation strategy implemented by the then government was to relocate and resettle the people to more safe areas by constructing individual houses or housing colonies. In the rehabilitation process, the Government agencies [Grama Panchayath, Public Works Department] and Non-Governmental organizations came into the scene to construct houses for the victims. The plots for reconstruction were earmarked in the same Panchayath and Adjacent Panchayath areas as colonies based on the availability of land. As part of the rehabilitation programme, 6030 houses were reconstructed in and around Alappadu Panchayath of which 1817 houses were constructed by the Government organizations through local self Government and 4213 by Non-governmental organizations.

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Approach of agencies viz. NGOs and GOs were different in the rehabilitation mission. In Government agency’s process the beneficiaries were entrusted with the approved plan, design of the house along with money in installments and various line departments monitored the construction activity. But the NGOs on the other hand, went along with the standards and norms as approved by the District administration but the construction works were given to agents/private subcontractors without involving the stakeholder community. Many beneficiaries had no information about their property or house until handed it over to them. That is how in the same area for the same purpose among similar beneficiaries two set of organizations having different and distinct policies and mechanism worked together that too in the state where no precedence of any such disaster is a good learning experience in sociological point of view. Any rehabilitation process though after a dreadful disaster is an opportunity to grow and develop. For which a lot of things has to harmoniously work together to bring a desired productive result. This filed level study is conducted 10-12 years after the implementation of housing rehabilitation project. Learning from this process of housing rehabilitation will help to develop a proper strategy for sustainable resettlement of disaster-affected community especially in the context of Kerala.

Community Participation in Tsunami Rehabilitation Context
Beneficiary participation is very much emphasized and encouraged, with many academics agreeing that it is a critical component for the success of any project. It is therefore said that the success of projects depends largely on the success of local community participation. Community participation refers to the involvement of people in solving their own problems or to modify their socio-economic conditions. Mostly participation comes in setting goals, evaluating, preparing and also implementing plans and programs. It has been found that those who have experienced losses due to Tsunami 2004 are more interested to participate in community activities and respond to the natural socio-economic living. Living in a community with a higher proportion of inherited social capital, like fishermen community, increases the probability of engaging in community activities during and after a disaster. Individuals who participate in village-based activities are more likely to undertake community activities compared to those not engaging in similar activities. This implies that encouraging participation in community activities can have positive externalities in disaster rehabilitation.

The thrust of participation of the beneficiaries is even globally understood and stressed. The United Nations (1970) defines participation as the collective action by the various strata of people or interest groups. UN viewed participation as a dynamic group process in which members of a group with an understanding about their strength and weakness contribute, share or are influenced by the mutual sharing of ideas and activities towards problem-solving or decision-making (Banki,1981). The core focus of community participation is interplay of ‘voices and choices’ of the individual and collectives. The same will influence growth and development of human, organizational and management capacity to solve problems as they arise in order to sustain the improvements made over the time (Sastry, 2001). Community participation encourages people to work in peer network where people feel a sense of togetherness of community and recognize the
benefits of their involvement. The effectiveness of that participation starts with justifiability of beneficiary selection. A project’s success is generally influenced by the knowledge, attitude, and practice of the staff associating with its implementation. This key finding will help the implementing organizations in reviewing their current plans and policies, and is useful in monitoring and evaluating projects. This will also be helpful to redefine the social work education curriculum if required, inculcating the spirit of beneficiary participation.

This study, therefore, contributes to a greater understanding of beneficiary participation in project implementation. It will give guidelines to the local community participation advocates to execute, evaluate and monitor local community participation more effectively with greater understanding. Stakeholders may benefit from this thesis in terms of gaining knowledge in establishing, operating and evaluating successful projects. Developing the research and knowledge base is essential for the social scientists to face the uncertainties of future and complexity of social issues. The present study in a constrained sense may be helpful to professional Social Work and Sociology to fill the theoretical gaps in the operationalisation of a people-centred programme, especially in disaster rehabilitation. It may also be helpful for the development practitioners to plan policies and in its execution.

Research Design

The main objective of the study is to understand and analyze the impact of community participation in the Tsunami Housing Rehabilitation project. To achieve this objective various related variables like Socio-economic status of the beneficiary, justifiability of beneficiary selection, competency of the instrumental organisations [NGOs and GOs] and the project execution were examined. To arrive the conclusion, these variables were tested for its correlation with the most vital focus of the study i.e. Peoples participation. The study was concluded with the result of correlation between people’s participation and social capital in the Tsunami housing rehabilitation project.

Basic theory taken for this study is citizen participation theory that defines individuals’ opportunity to influence decisions and development. This theory incorporates Arnstein’s "ladder of citizen participation" that well defining the comparative perception of the ‘makers’ of the project and anticipated perceptions of citizen participants. N.J Habraken's participation theory is also considered in the study to examine two different version of involvement of beneficiaries. Murray. G. Ross's definition of community organization as a sequential process is also quite useful both theoretically and practically to define participation. Logical conclusion method of famous researcher John Stuart mill that if two or more instances of the phenomenon under investigation have only one circumstance in common, the circumstance in which all the instances will agree , is the cause or effect of given phenomenon is taken for arriving at a logical conclusion viz. A+B+C = Z, A+B+ Non C= - Z where, C represents the participation component and Z is the better project outcome and Non C represents the non - participation of the beneficiaries and negative Z is poor result. Thus C and Z are strongly correlated positively.
The sample for the study is taken from the people rehabilitated in and around Alappadu Panchayath in different Tsunami Colonies. As a worst affected Panchayath in the state 6030 houses were reconstructed in 16 wards of Alappadu and Nearby Panchayath. Stratified Random Sampling method is used for the study. Two strata were formed one on the basis of wards or colonies and other on the basis of agency constructed the houses viz. GO or NGO. The sample is taken with the confidence level of 95% and confidence interval of 4%. The level of significance of the sample size is 5% and its Z value is 1.96. Based on this statistical method the total size of the sample is fixed as 632. The sample was randomly chosen from the complete list of beneficiaries using Microsoft Excel software programme.

| Sl. No | Particulars       | Total population | GO   | NGO   | Sample size
<table>
<thead>
<tr>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Housing Scheme</td>
<td>6030</td>
<td>1817</td>
<td>4213</td>
<td>195 437</td>
</tr>
</tbody>
</table>

Data collection was done using interview schedule, FGDs, interview guide, observations and transacts walks after a pilot study and pre-test. The analysis was done using SPSS [Statistical Package for Social Science -Version 21]. The statistical analysis techniques such as descriptive methods like Mean and Standard Deviation, Inferential statistics-Paired t-tests were also applied for the analysis of data. ANOVA test, Tukey simultaneous comparison for post hoc analysis, Discriminant analysis, Linear regression analysis, Karl Pearson coefficient correlation analysis, Uni-variate general linear model analysis were also used for arriving at statistical conclusions.

**FINDINGS OF THE STUDY**

This study aims to understand the present socio-economic status of the Tsunami victims those who were rehabilitated in single houses, and clusters in different areas of the Alappadu Panchayath and adjacent Panchayath. The communal heterogeneity in the rehabilitation process looks very positive especially in an era of volatile religious polarization. On a closer look at the employment pattern a commendable change is visible after the Tsunami. More than two third of the rehabilitated fishermen left from fishing after Tsunami.

The impact of the Peoples Participation was analyzed statistically through single factor ANOVA test and Ranking method. It has been found that those who participated or involved in the process truly build-up the social relations and developed a unique perspective in many aspects. The study has shown that those who participated in the process could recover sustainably from the tremors of disaster. The beneficiaries involved in the process have a strong sense of ownership and satisfaction in their day-to-day living. Peoples Participation has a high positive correlation of 73.5 percent on the justifiability of the selection process, 55 percent on the competency of the instrumental organization and 66.9 percent on the execution of the project. Competency of the instrumental has strong positive correlation of 53 percent on the justifiability of the beneficiary selection. The result shows that people’s participation is most vital part of the project among all the components as effects beneficiary selection, institutional competency, and execution. The Durban
Watson test is 1.604 showed low positive overall correlations among the variables. The OLS equation is being explained below

**Execution of the project = -632 + Justifiability of selection process \[0.225\] + Instrumental organization \[0.23\] + People’s participation \[0.626\].**

In this study, it is clearly shown that, the more educated people made use of the different components of the project effectively. A clear edge for the educated people in acquaintance, understanding, and assessment is found in the study. Same positive impact of education is found in behavioural, attitudinal and social responses of the beneficiaries.

In the correlation matrix of impact of the different components of the project implementation following findings are note worthy.

A] **Justifiability of the beneficiary selection process has a very high positive correlation of 73.5 percent with people participation of the project and having a mean value of 2.5 in the statistical analysis. This means 1-degree standard deviation change in people’s participation corresponding standard deviation change would be 73.5 percent on the justifiability of the selection process and vice versa.**

B] **The competency of the instrumental organisation too has a very high positive correlation of 55.5 percent with people’s participation of the project and having a mean value of 3 in statistical analysis. This means 1-degree standard deviation change in people’s participation corresponding standard deviation change would be 55.5 percent on the competency of the instrumental organisation and vice versa.**

C] **The execution of the project has a very high positive correlation of about 66.9 percent with people’s participation of the project and having a mean value of 2.8, ranked three among four components in statistical analysis. This means 1-degree standard deviation change in people’s participation corresponding standard deviation change would be 66.9 percent on the execution of the project and vice versa.**

Therefore, in any project implementation, justifiability of beneficiary selection, the core competency of the instrumental organisations and execution of the project both in the policy and practice level is very vital for the beneficiary participation. It is clearly visible in the study that the government organization set an appreciable benchmark status in the implementation by setting standards. One of the major strategic differences between the GOs and NGOs was found to be the involvement and participation of the stakeholders.

Finally, the social capital output of both the beneficiaries of Government and the Non-Governmental organization was analyzed. In the analysis of 16 related variables the mean value of GO \[2.90\] was found well ahead than NGOs \[2.31\]. The regression equation for social capital is as given below
Social capital of beneficiaries of NGO = 0.4240 + Social Capital of Beneficiaries of Government Organization [0.7724]

Multiple regression analysis was performed to predict the dependent variable execution of the project. Accordingly, the independent variables selected are people’s participation, competency of the instrumental organization and justifiability of the selection process. To test the model fit ANOVA test was performed. ANOVAs value is 329.27, P = 0.000 [P < 5%], and the model is found fit. This implies the fact that 3 independent variables can be used to predict the dependent variable. The regression value of the model summary is 61.1 percent. This is heartening for the present model with help of independent variable; the dependent variable can be predicted 61.1% to be true. The Durban Watson test was 1.604 showed positive overall correlation among the variables. The regression equation is explained below

Execution of the project = –632 + Justifiability of selection process [0.225] + Instrumental organization [0.23] + People’s participation [0.626].

The individual effect of an independent variable is also analyzed with the help of t-test. Accordingly, the whole p values were statistically significant. This showed the fact that the individual independent variables can also be used to predict the dependent variable execution of the project. The beta coefficient is high for people participation, which is calculated as 0.522. Hence the effect of people’s participation is much higher than the other two variables to predict the execution of the project. It is also clearly found in the study that the social capital having desired benefits will increase with the increased level of community participation. The same desired benefit was found visible in the qualitative and quantitative outcome of the Tsunami Rehabilitation Housing Project.

Discussion

This study is a first step in measuring success for local community participation and disaster rehabilitation, in particular, Alappadu Tsunami Housing Rehabilitation cases. Using the results of this study, the findings should be able to facilitate further research. The researcher encourages the practical application of the indicators that have been developed from this thesis. It is envisioned that the work from this thesis can be put to use not only in assessing the performance of local community participation in Housing scheme alone but developing specific indicators in any development projects related with various other components in project implementation. The performance of a project implementing agency and local community participation processes are quite critical to any disaster rebuilding process, or any activity in any development segment.

The present research study analyzed different aspects of community participation implemented to accomplish a basic need of the community through two unique instrumental organizations. The study is unique in the sense that the way in which a society survived a massive disaster especially in a state with
people having high aspiration and no precedence of disaster. The development researchers always highlighted the rigidity of the government system and the flexibility of non-governmental initiatives. But the study revealed the facts of management tactics and its output gained by the government organizations through a consorted effort involving beneficiaries. The study also unearthed the way in which justifiability of the selection process, the core strength of instrumental organizations, involvement beneficiaries magnanimously influenced the viability and desired output. A basic understanding and pooling of the existing social capital are proved in the study with its multiplying and complementary impact between and within the participation and social capital. The strategic involvement of beneficiaries in the project implementation successfully and positively influenced both the qualitative and quantitative result of the project. The study well proved the fact that truly social capital must be considered at par with financial capital to evolve a successful model in development.

Recommendations

- A comprehensive policy with distinct guidelines specifically in Disaster management for GO-NGO partnership is highly essential.
- Any external agency should be invariably linked with similar nodal agencies of the State government and there should have a common platform to share best practices and lessons learned from the initial stages of implementation. The state-specific and local-specific resources must be considered in the execution process.
- Transitional and long-term changes in cultural, occupational and living needs must be considered in any rehabilitation program.
- Beneficiary participation must be treated as the key factor of any community based disaster rehabilitation project, with a clear conviction of available social capital and in no way, the same should not be compromised for any other reasons like Budget, timeliness etc.
- The instrumental organization must be made competitive, a task force of personnel in every department must be trained, and inclusiveness should be ensured for effective beneficiary participation.

Concluding Remarks

It is found in this article that it is not at all important that whether the agency is NGO or GO but the focal crucial point behind the success of any development project is the involvement of its stakeholder. It is clearly visible in the analysis of data that the government organization, unlikely, set an appreciable benchmark in the implementation mainly by mobilising and involving the stakeholders Tsunami housing rehabilitation project. Viability parameters clearly had shown the impact of people’s participation in
result level. Various components of the Tsunami housing rehabilitation project like beneficiary selection process, competency of the project implementing agency, its execution in tune with people’s participation has been analysed and it is clearly found that the Peoples Participation has a high positive correlation on justifiability of the selection process, competency of the instrumental organization and in the execution of the project. In result level also it has been found that those who participated or involved more in the process truly build-up the social relations and developed a unique perspective in many aspects. The study showed that those who participated in the process could recover sustainably from the tremors of disaster. The social capital of the individuals rehabilitated in the project is also examined it is found that the social capital base of the beneficiaries is much higher than that of NGO beneficiaries. In sum and essence result showed that people’s participation is most vital part of the project for successful implementation and sustainable outcome.

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Web link

Cyclone Aila and Coping Strategies of the Coastal Households in Southern Bangladesh

Sanjoy Kumar Chanda

Abstract: Cyclones always affect the livelihood patterns of the human being. Although several studies measured only the immense impact of cyclone Aila which hit the southern part of Bangladesh in 2009, very few studies concentrated on exploring impacts of the cyclone together with its coping strategies. The aim of this study is to explore the impacts and coping strategies of the Aila affected households located in the coastal region of southern Bangladesh. A total of 240 randomly selected households in the study area were surveyed through an interview schedule to gather information. Both descriptive and inferential statistics were used to analyze data. The results show that Aila affected households faced multifarious impacts such as the displacement of dwelling place, the loss of subsistence economy, the fall of income, the disruption of children’s study and the disorder of health. In order to mitigate the impacts of the cyclone Aila, various coping strategies of the households were observed in the study area. A significant portion (86%) of the household-dwellers, who experienced the full-damage of house, chose the embankment for building a new house as a coping strategy. While in the families confronted with the financial crisis following Aila, children of the 52 percent of households had to manage their study at home instead of attending school. Three obvious dichotomies such as formal and informal, strategic and nonstrategic, and traditional and scientific are underpinning to explain the nature of coping strategies. The present study recommends recognizing the vulnerable households and promoting coordinated disaster risk reduction programs to mitigate cyclone impacts and providing support for rebuilding post-cyclone livelihoods.

Keywords: Cyclone Aila, Bangladesh, Coping strategies, Infrastructure reconstruction Socioeconomic need, Agriculture

Introduction

A cyclone carries the changes characteristics of gradual change of phenomenon and natural hazards which consequences changes in the physical, social and production system. Now in the age of industrial aggression nature and society are deeply intertwined. Sociologist Ritzer (2008) identified that changes in society often affect the natural environment, and those changes, in turn, affect society. Thus, in a broad way, today “nature is society and society is also ‘nature’” (Beck, 1992:80). Moreover, in the extent of the climatic impact, still developing countries are more vulnerable compared to developed countries (CCC,

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*I would like to thank the persons who assisted me during the survey and the coastal people who shared their views. Also, I am grateful to Professor Md. Nasif Ahsan of Economics Discipline at Khulna University in Bangladesh for his thoughtful suggestions to build this article.

I declare that I did not receive any fund to conduct this study from any source and I have no conflict of interest.

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Impact of cyclone in the rural society of Bangladesh is an enduring phenomenon and it has become significant after the beginning of the 21st century. Frequency and intensity of natural disasters are likely to increase especially in the coastal part of Bangladesh. The socioeconomic condition of the cyclone-affected region devastated enormously. Several early pieces of evidence of the above phenomenon and its associated impacts in the agriculture, health, water and sanitation, biodiversity is already visible in Bangladesh (Islam, 2011; Azad & Khan, 2015). It is estimated that cyclone could affect more than 70 million people of Bangladesh due to its geographic location, low elevation, high population density, and poor infrastructure, high levels of poverty and high dependency on natural resources (UNDP, 2007). It is evident that the population living in the coastal area is more vulnerable compared with the population in other areas (Alam & Murray, 2005). Coastal resources upon which most people depend are likely to be affected severely due to climate variability and change (OECD, 2003).

At present, in the world, Bangladesh is marked as the most cyclone-prone country, which experienced above 36 cyclones since 1970 ensuing over 450,000 deaths and enormous economic losses (DDM, 2009). Furthermore, the regularity of natural hazards has been increased significantly over the last decades mostly in the Bangladesh coast which is assumed as the impact of climatic change (IPCC, 2007; Karim & Mimura, 2008) although there are several opposite views against the incidence of cyclones due to climate change (Bengtsson et al., 2007; Knutson et al., 2010). The Bay of Bengal being an ideal breeding ground for tropical cyclones; the coastal areas have been facing frequent severe disasters every year (Islam, 2011) and cyclone Aila is a suitable example of it. Cyclone Aila as a leading climate disaster has affected in the south-west coastal region of Bangladesh. It is formed as a deep depression in the west central Bay. It has been hitting in the south-west coast from 4.30 pm to 7.45 pm on 25 May 2009 (Shushilan, 2009). Several studies reported that around 190 deaths, 7100 injuries and vast damages of property were the immediate impacts of that cyclone (DDM, 2009; IFRC, 2010). South-west region of Bangladesh was seriously affected as Aila founded a tidal surge to break through embankments, destroying hundreds of thousands of homes and outnumber of people were killed and injured (Ahmed et al., 2009). Similarly, MoHFW (2009) reported that no household of three districts of the southern part of Bangladesh left to be severely affected by the cyclone Aila in 2009. Moreover, several problems including physical illness, food crisis, and breaking down the family life are identified in the coastal area after Aila (Azad & Khan, 2015). It is observed the high-risk situation of the coastal people along with the infrastructure, agriculture, livestock and economic development due to the low-lying areas of Bangladesh coast, which is frequently prone to cyclones (Alam, 2017; Mallick et al., 2017).

In case of coping strategies, persons in a cyclone affected locality adopt diverse measures to minimize the consequences (Paul & Routray, 2010). Bangladesh utilizes structural (embankment, levee, polder, for instance) and nonstructural (awareness raising, flood warning, for example) measures for flood prevention and mitigation (Paul, 1997). Moreover, the planning of top-down approaches of Bangladesh has repeatedly not succeeded to deliver timely and effective cyclone mitigation (Mirza et al., 2001). Subsequently, now, importance is being placed increasingly on incorporating local people’s indigenous cyclone mitigating
strategies (Blaikie et al., 1994; Sanderson, 2000) and in other public/external efforts to achieve effective flood mitigation (Twigg, Benson & Myers, 2000; Few, 2003). However, there is very limited and narrowly focused literature available on local people’s traditional means of coping with cyclones (Rasid & Mallik, 1995; Rashid, 2000). The studies which are concerning with household coping strategies are minimally emphasized on famine and food security (de Waal, 2004; Smucker & Wisner, 2008). In Bangladesh, the actions against riverine hazards are highly marked, for example, how diverse groups of individuals and communities respond to flooding or inundating (Delap, 2000; Rasid & Haider, 2003; Few, 2003; Brouwer et al., 2007); indigenous adjustment strategies to flooding (Khandker, 2007; Paul & Routray, 2010) adjustment strategies to farming cropping patterns in village (Islam, 1980; Paul, 1984; Rasid & Mallik, 1995). Very few studies were attentive on the warning of the cyclone, dissemination of forecast information, and adaptation responses (Haque, 1997), and cyclone disaster reduction, preparedness and management issues (Paul & Rahman, 2006; Khan, 2008).

In Bangladesh, a number of studies during last decades were conducted on various issues of natural disasters, such as cyclone or flood but there are still shortages of the formal documentation of how identified local knowledge and practices influence coping behavior during a crisis.

Hence, the main concern of Bangladesh is to mitigate the cyclone-induced disaster. It is highly pronounced that if immediate actions are not taken to address cyclone, it will weaken most of the development gains, increase resource scarcity and inequality in different regions of the world that will delay achieving Sustainable Development Goals (SDGs) in Bangladesh (Rahman, 2017). Addressing the impact of the cyclone on the livelihoods of people and the capacity and opportunities for quick recovery and increased resilience to future events is a vital part of the response to the disaster (Chowdhury, 2012). But Aila affected people, at present, have shown poor capacity to cope with the deep consequences of disaster risks and residents still live with critical vulnerable conditions, namely social (waning social togetherness), economic (declining of plants, shrimps and fisheries) and institutional (seldom access to community clinics) (Saha, 2013). Similarly, Rahman (2015) reported that long years after cyclone Aila killed at least 200 people in Bangladesh and households in coastal districts of Khulna and Bagerhat are suffering from different problems, drinking water crisis is one of them.

In response to the impending critical condition, this study has been carried out in the cyclone Aila affected area in Bangladesh. Decision makers need to know the extent of impact and the coping strategies people use to avert increased vulnerability to formulate an effective program of action in the infrastructure, socioeconomic and agriculture for household-dwellers. This study objective includes explaining the impact of cyclone Aila and coping strategies of coastal affected households in Bangladesh. Finally, this objective has been broken down three research specific questions: (a) what coping strategies are taken by households for infrastructure reconstruction after Aila?; (b) what coping strategies are determined to recover socioeconomic need?; and (c) what coping strategies are observed for agriculture?

Theoretical frameworks
Two theoretical frameworks including a sociological understanding of cyclone and the access model are used to explain the study findings.

**Sociological understanding of cyclone**

While cyclone extremes are natural processes, the responses to such events depend on the societal factors. Theoretically, the impact of cyclone Aila can be understood from the ground of both basic (economic) and superstructure (social, political, cultural, etc.) in the Marxian term. Earlier studies support a long history within the sociology of discovering multifarious results at the household level (Entwisle, 2007; Sampson et al., 2002). In addition, sociological theory, tools and techniques also support finding out how people respond in local settings. The classical sociologist Emile Durkheim addresses that the social world constitutes a reality of its own, above and beyond the lives and experiences of individual persons. In view of that, macro-sociological theories have been interested in explaining collective rather than individual behavior (Siegrist & Marmot, 2004). Both classical and contemporary sociologists have contributed emphasizing this approach to find social fact in society. So, considering the importance of collective vision, I try to incorporate the prime concern of sociology lingers at the level of collective phenomena from the household perspective in Bangladesh. Reducing vulnerability, it needs group action from ‘collective conscience’ (Durkheim, 1893/1964).

The impact of cyclone Aila can be explained with “capitals” (Bourdieu, 1984) for example, direct impact observes on physical capital like disease and injury as well as indirectly through affecting economic, social and cultural capital such as lower income, loss of integration and absence of knowledge respectively. These impacts reduce the capabilities of victims to improve their conditions. When people cope with the adverse situation, they maintain some sets of logic that are rooted consciously or unconsciously, which is related to the concept of habitus and Bourdieu explains it as “structured structuring structure” (Bourdieu, 1990:53). The Social Capital Theory enables individuals and/or groups through collective action to reach desirable outcomes (Silici, n.d:2). The Social Capital Theory is “about the value of social networks, bonding similar people and bridging between diverse people, with norms of reciprocity” (Claridge, 2004). Public awareness is linked to ‘The Social Capital Theory’ which describes the pattern and intensity of networks amongst people and shared values which arise from those networks. United Nation International Strategy Disaster Risk (UNISDR, 2009) defines public awareness as the extent of common knowledge about disaster risks, the factors that lead to disasters and the actions that can be taken individually and collectively to reduce exposure and vulnerability to hazards.

Cyclone can cause both physical damage and losses incurred by social units and the disruption of the unit’s routine functioning and within its network of other social units. Whenever there is a natural and man-made disaster, people help one another before they are supported or replaced by government entities (Schellong, 2007). It emphasizes the importance of being there for one another as people to work and help one another, even during the cyclone. This sense of moral responsibility produces collective action in times of threat to the community. Schellong (2007) indicates that if there are problems or dissatisfaction among residents,
they would not be able to help each other during emergencies. So, the Social Capital Theory therefore clearly links with disaster coping strategies of local people.

The access model

The access model has been emerged for the analysis of disaster with an aim to analyze the people’s access to the capabilities, assets and livelihood opportunities that qualify them to minimize their vulnerabilities. Following a disaster, the term access has become a key issue to the analysis of vulnerability and adaptation (Wisner et al., 2004). Access is defined as “access involves the ability of an individual, family, group, class or community to use resources which are directly required to secure a livelihood in normal, pre-disaster times, and their ability to adapt to new and threatening situations”. (ibid:94). The ‘access model’ emphasizes the scope of livelihood as the key to recognizing coping behavior during a disaster. For example, the persons who have better access to means of production, information, tools and social relations are considered as less vulnerable as they can use these opportunities during a crisis. This model highlights on the three related agents: (i) the agency of the individuals and households, (ii) the impacts of hazards on victims, and (iii) how victims develop strategies for adaption. In explaining this process, a linking between three agents are observed indicating livelihood of households depends on the individual decisions and this personal decision are generally shaped by the external setting called the political-economic that shapes the pattern of access and utilization to resources. In this analysis, political economy includes a couple of systems, such as (i) social relations and (ii) structure of domination, which are the main factors of vulnerability and determine the coping strategies of cyclone victims. The former system refers to the influx of goods, money and surplus between different actors, whereas the latter means to the politics of relations between individuals and groups that depict relations within households, kinship ties, ethnic groups and relationships between individuals and the state. Hence, the ‘access model’ signifies a thorough understanding of the underlying factors that influence the coping and recovery strategies.

Using these models, the analysis of this research includes the coping and recovery strategies of the households of Kamarkhola union under Batiaghata Upazila\(^1\) in response to the cyclone Aila in Bangladesh.

Methods and materials

Study type

This is a quantitative study and exploratory in nature. Inferential statistics were used to measure an association between groups and subgroups of variables. In the epistemological sense, this study shows how the variables have a relationship with each other. Here it provides an opportunity to measure variables through determining a scale to increase validity and reliability. In this phase, the survey method was used

\(^1\) An administrative unit that functions as a sub-unit of the district of Bangladesh.
as it connected the information of variables from different angles to respond designed research questions and allowing the power of generalization.

**Study area and sampling**

A few previous pieces of research on disasters were conducted by selecting the study area purposively which indicated that each location was severely affected by the several natural calamities namely cyclones, storm surges, salinity intrusion and tidal flooding (Huq et al., 1996; Ali and Chowdhury, 1997; Ali Khan et al., 2000; World Bank, 2000; Singh et al., 2001). Ward No. 1 of Kamarkhola union under Batiaghata Upazila of Khulna district in Bangladesh was selected purposively as it was documented as a full cyclone Aila affected among all nine wards of this union. Afterward, a list of all Aila affected households of the ward No. 1 was collected from the union Parishad- a local administrative unit, and the number of affected households were counted 467 (Six No Kamarkhola Union Parishad, 2015). Then, a lottery technique of random sampling was followed to select a sample of 240 that represents 51 percent of the total Aila affected households of that ward.

**Variables and measures**

Variables of this study were identified from the different aspects of impact and coping strategies as well as the relation of specific coping strategy to the specific impact of cyclone Aila in Bangladesh. With a view to maintaining validity and reliability, statistical measurements were used to measure every variable for this study. Table 1 depicts the name of variables with its codes and values.

**Instrument and procedure**

An interview schedule as an instrument was developed to collect data in the process of personal contact with the head of 240 households of the Kamarkhola village. A pilot survey was conducted to check the validity of measurement scales and scrutiny of irrelevant questions before making a final interview schedule. To explore the answer of research questions of the study, data about respective concepts were collected by incorporating relevant cases in the interview schedule contained both opened and closed-ended items. Data were collected by four trained interviewers for two months from November to December of 2010. An oral consensus of the respondents was ensured to maintain an ethical issue before gathering information. Moreover, few times were spent to build up a rapport with the respondents and then the interview started.

**Statistical analysis**

Field data were analyzed using SPSS (statistical package 20) and Excel. Both descriptive (percentage) and inferential (chi-square) statistics were used for data analysis. Results were presented in the cross tables and figures. The statistical analysis was conducted at a 95 percent confidence level and a P value less than 0.05 was considered statistically significant.
<table>
<thead>
<tr>
<th>Variables</th>
<th>Codes and values</th>
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<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>i. House damage</td>
<td>Full</td>
<td>partial</td>
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<td>-</td>
<td>-</td>
<td>-</td>
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<tr>
<td>ii. New places for coping</td>
<td>embankment</td>
<td>relative</td>
<td>community</td>
<td>own</td>
<td>broken</td>
<td>house</td>
<td>illegal</td>
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<td></td>
<td></td>
<td>house</td>
<td>shelter</td>
<td>own</td>
<td>broken</td>
<td>house</td>
<td>involvem</td>
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<tr>
<td>iii. Coping strategies for rebuilding houses</td>
<td>GO &amp; NGO support</td>
<td>relatives'</td>
<td>own</td>
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<td>involvement</td>
<td>illegal</td>
<td>loan</td>
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<td></td>
<td></td>
<td>support</td>
<td>effort</td>
<td>with</td>
<td>politics</td>
<td>connection</td>
<td>distribut</td>
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<tr>
<td>iv. Factors hindering school attendance</td>
<td>disruption of communication</td>
<td>money</td>
<td>lack of</td>
<td>-</td>
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<td></td>
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<td>shortage</td>
<td>logistic</td>
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<tr>
<td>v. Coping strategies for continuing study</td>
<td>home studying</td>
<td>boat</td>
<td>late</td>
<td>paying</td>
<td>group</td>
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<td></td>
<td></td>
<td>using</td>
<td>schooling</td>
<td>less</td>
<td>sharing</td>
<td></td>
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<tr>
<td>vi. Types of illness</td>
<td>Malaria</td>
<td>kalazar1</td>
<td>injury</td>
<td>skin</td>
<td>disease</td>
<td>-</td>
<td>-</td>
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<tr>
<td>vii. Coping strategies for recovering from illness</td>
<td>depending on traditional medicine</td>
<td>depending</td>
<td>no</td>
<td>-</td>
<td>-</td>
<td>-</td>
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<td></td>
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<td>on modern</td>
<td>treatment</td>
<td></td>
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<tr>
<td>viii. Income after Aila</td>
<td>$1-$60</td>
<td>$61-$120</td>
<td>$121-$180</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
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<tr>
<td>ix. Coping strategies for surviving</td>
<td>minimizing food bundles</td>
<td>stopping</td>
<td>borrowing</td>
<td>taking</td>
<td>dependin</td>
<td>-</td>
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<td></td>
<td></td>
<td>child</td>
<td>money</td>
<td>aid</td>
<td>on</td>
<td></td>
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<tr>
<td>x. Coping strategies for overcoming the loss of fish</td>
<td>raising pond embankment</td>
<td>changing</td>
<td>fencing</td>
<td>-</td>
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<td></td>
<td></td>
<td>species</td>
<td>pond by</td>
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<td>net</td>
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<tr>
<td>xi. Factors of no crops yielding</td>
<td>Submerging</td>
<td>salting</td>
<td>lacking</td>
<td>-</td>
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<td>-</td>
<td>-</td>
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<td></td>
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<td></td>
<td>tools</td>
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<td></td>
<td></td>
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</tr>
<tr>
<td>xii. Coping strategies to grow crops</td>
<td>cultivating hybrid crops</td>
<td>using</td>
<td>using</td>
<td>following</td>
<td>no</td>
<td>-</td>
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<td></td>
<td></td>
<td>traditional</td>
<td>modern</td>
<td>strategy</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>knowledge</td>
<td>technology</td>
<td></td>
<td></td>
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<tr>
<td>xiii. Damage of trees</td>
<td>Full</td>
<td>partial</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>xiv. Coping strategies to grow trees</td>
<td>afforestation</td>
<td>plantation of deep-rooted trees</td>
<td>plantation in Highland</td>
<td>dike plantation</td>
<td>-</td>
<td>-</td>
<td>-</td>
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</tbody>
</table>

1 Kalazar= One kind of fever.
Results

In this section, empirical results are presented that contain the information of both impacts and coping strategies in the aspects of (1) infrastructure such as houses, (2) socioeconomic such as child education, health and income, and (3) agriculture such as fish, crops and forest.

Background of the respondents

Data in Table 2 show that 85 percent of the respondents were male, and 15 percent were female in the study area. In the age category, the highest percentages (30% and 29.2%) of the respondent belonged to the age group of 30-39 and 40-49 respectively that represent the middle-aged head of the household. In contrast, the age group of 20-29 and 60-69 made up 10.8 percent, the lowest, for each, and the age group 50-59 consisted of 19.2 percent head of the households in the study area.

<table>
<thead>
<tr>
<th>Table 2 Characteristics of the subjects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demographic &amp; socioeconomic data &amp; Number (%)</td>
</tr>
<tr>
<td><strong>Sex</strong></td>
</tr>
<tr>
<td>Male</td>
</tr>
<tr>
<td>Female</td>
</tr>
<tr>
<td><strong>Age (years)</strong></td>
</tr>
<tr>
<td>20-29</td>
</tr>
<tr>
<td>30-39</td>
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<tr>
<td>40-49</td>
</tr>
<tr>
<td>50-59</td>
</tr>
<tr>
<td>60-69</td>
</tr>
<tr>
<td><strong>Education</strong></td>
</tr>
<tr>
<td>Illiterate (0)</td>
</tr>
<tr>
<td>Primary (I-IV)</td>
</tr>
<tr>
<td>Secondary (VI-XII)</td>
</tr>
<tr>
<td>Higher (XIII-XIII+)</td>
</tr>
</tbody>
</table>

Source: Household survey, 2010

The mean age was counted 34. In education, the same table depicted that the greatest number of the respondents (37.5%) had a primary level of education with the following 30.8 percent for a secondary level of education whereas the lowest percentage (6.7%) of the respondents had the higher level of education. It is also observed that 25 percent of the respondents were illiterate in the study area. Professionally respondents were occupied in six categories: agriculture, day laborer, business, service, housemaid and van puller. Around half (48.3%) of the respondents were farmers and 31.7 percent day laborer. Most of them (60%) were Muslim and 35.9 percent were Hindus.
House damage and coping strategies

In many cases, Bangladesh makes use of structural (e.g., embankment, levee and polder) and non-structural (e.g., awareness building and flood warning) measures for the prevention of flood and mitigation (Paul 1997). House as infrastructure is the basic requirement for the people to survive.

Table 3: Places chosen to adapt after Aila by types of the damages of household

<table>
<thead>
<tr>
<th>Types of damage</th>
<th>Places for coping</th>
<th>Community shelter</th>
<th>Relative house</th>
<th>Own broken house</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Embankment</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Full</td>
<td>135 (67%)</td>
<td>22 (11%)</td>
<td>25 (13%)</td>
<td>18 (9%)</td>
<td>200 (100%)</td>
</tr>
<tr>
<td>Partial</td>
<td>7 (17%)</td>
<td>9 (23%)</td>
<td>6 (15%)</td>
<td>18 (45%)</td>
<td>40 (100%)</td>
</tr>
<tr>
<td>Total</td>
<td>142 (59%)</td>
<td>31 (13%)</td>
<td>31 (13%)</td>
<td>36 (15%)</td>
<td>240 (100%)</td>
</tr>
</tbody>
</table>

Pearson Chi-square 45.459 (p <0.000)

Source: Household survey, 2010

Cyclone Aila damaged all the houses of Kamarkhola village in Bangladesh. Data in Table 3 indicate that the maximum (67%) households shifted on the embankment for living place as a coping strategy when they experienced complete damage of house by Aila, while few had scope to stay in their own house. On the other hand, the highest 45 percent of the total households by partial damage of house preferred own broken house to cope with living, with the following 23 percent went to the community center. Therefore, results from the empirical study show that coping strategies of households vary according to the intensity of damage, and it is statistically significant at p <0.000.

Coping strategies of making a new house
The findings reveal that the maximum 28 percent of the sampled households took the support of their relatives (Fig.1). Taking a loan, support of government organizations (GOs) and nongovernmental organizations (NGOs), and own effort were almost the same based on percentages that were counted 20 percent, 19 percent and 17 percent respectively. Moreover, the political involvement (9%) and the unfair connection with foreign aid distributor (7%) were observed as strategies to have money of households.

**Barriers to child education and coping strategies**

D'Oley et al. in 1994 observed that to cope for supporting survival and improving the quality of life of human being in a critical situation, education is identified as an important determinant. In this study, children from 198 (83%) of 240 sampled households of Kumarkhola experienced various challenges commencing their study after cyclone Aila and children from remaining 42 (17%) households did not face difficulty to attend school. So, children took the coping strategies against the adverse conditions after Aila so that they could overcome the loss of study. Children in the study area had to continue their study at home instead of attending school due to a couple of factors such as the shortage of money of families (52%) after Aila and the disruption of communication (43%) (Table 4). Again, the highest 41 percent cases, children dropped their studies while they encountered a lack of logistic support, with the following 33 percent cases for studying at home. Moreover, the tendency of using a boat as a traditional vehicle, paying the lower tuition fee, support from the village elders and peer groups, sharing of the study were observed to mitigate the loss of study as well. In addition, the coping strategies of children to recover studying vary according to the hindering factors of school going after Aila, and it is statistically significant at $p<0.001$.

**Table 4: Coping strategies for recovering the loss of study by the barriers of attending a school of children after Aila**

<table>
<thead>
<tr>
<th>Barriers to attending school</th>
<th>Coping strategies</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Studying at home</td>
<td>Using boat</td>
<td>Group sharing</td>
</tr>
<tr>
<td>Late schooling</td>
<td>Help from elders &amp; peer groups</td>
<td></td>
</tr>
<tr>
<td>19%</td>
<td>28%</td>
<td></td>
</tr>
<tr>
<td>17%</td>
<td>9%</td>
<td></td>
</tr>
<tr>
<td>7%</td>
<td>20%</td>
<td></td>
</tr>
</tbody>
</table>

Source: Household survey, 2010
Disruption of health and coping strategies

Health as another social category has an immense impact on human life. A total of 226 (94%) households experienced the disruption of health were shown in various types of diseases following Aila. Data contained in Table 5 show that the households having four types of health effects of cyclone Aila took three types of coping strategies, and traditional medicine was counted the highest on an average among all strategies. However, for injury and skin disease, households could not depend on all types of coping strategies. In the case of skin disease, the households mostly depended on two strategies such as traditional medicine and no treatment. Here p<0.000 represents the significant relationship between coping strategies to overcome the health conditions and types of health effects. Here it is also alarming that total 23 percent could not participate in any treatment.

Table 5: Coping strategies to overcome the bad health conditions by types of health effects after Aila

<table>
<thead>
<tr>
<th>Health Effects</th>
<th>Coping strategies</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Depend on traditional medicine</td>
<td>Depend on modern medicine</td>
</tr>
<tr>
<td>Malaria</td>
<td>50 (46%)</td>
<td>36 (33%)</td>
</tr>
<tr>
<td>Kalazar</td>
<td>30 (44%)</td>
<td>20 (30%)</td>
</tr>
<tr>
<td>Injury</td>
<td>12 (35%)</td>
<td>16 (47%)</td>
</tr>
<tr>
<td>Skin disease</td>
<td>8 (67%)</td>
<td>2 (5%)</td>
</tr>
<tr>
<td>Total</td>
<td>100 (44%)</td>
<td>74 (33%)</td>
</tr>
</tbody>
</table>

Pearson Chi-square value: 26.344; P<0.000

Source: Household survey, 2010

Monthly income after Aila and coping strategies

Households usually undertook a variety of strategies to overcome the adverse impact of disaster when they fall in a crisis of income during or post-disaster period (Paul & Routray, 2011). The income of households is assumed to have an influence on the coping strategies of the individuals as it is the complex determinant reflecting socioeconomic characteristics (Haque, 1997). Various coping strategies were taken by the households in the study area to sustain according to the different ranges of monthly income after Aila. Table 6 illustrates that the highest 39 percent, who had income within the income group of $1- $60, took a lower amount food for the daily meal as a coping strategy to manage a family, with the following 28 percent and
23 percent reported for taking a loan and aid respectively. Additionally, 7 percent and 3 percent people of the same income group stopped their child education and depended on relatives correspondingly. Again, the maximum 44 percent respondents, who had income within the income group of $61-$120, took a lower amount of food for the daily meals that were counted double compared with the borrowing money and depending on the support of relatives. In the final group of income ($121 and $180), households utilized only two strategies such as taking a lower amount of daily food and taking foreign aid, and the percentages were equally divided. It is important that households ranking in the lowest category ($1-$60) relied on all kinds of coping strategies whereas the middle-income group applied four strategies and the highest income group was limited to apply only two strategies to cope. So, the findings represent that as the income level of households decreases, the application of the number of strategies increases in the cyclone-affected regions in Bangladesh.

Table 6: Coping strategies for maintaining the family by the monthly income of household-dwellers after Aila

<table>
<thead>
<tr>
<th>Monthly income after Aila (USD)</th>
<th>Coping strategies</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Taking of daily lower food</td>
<td>Stopping of children’s education</td>
</tr>
<tr>
<td>$1-$60</td>
<td>84 (39%)</td>
<td>16 (7%)</td>
</tr>
<tr>
<td>$61-$120</td>
<td>8 (44%)</td>
<td>0 (0%)</td>
</tr>
<tr>
<td>$121-$180</td>
<td>4 (50%)</td>
<td>0 (0%)</td>
</tr>
<tr>
<td>Total</td>
<td>92 (40%)</td>
<td>16 (7%)</td>
</tr>
</tbody>
</table>

Source: Household survey, 2010

Coping strategies to overcome the loss of fishes

The fish cultivation was considered as money accumulating business of the villagers. Cyclone Aila severely affected all kinds of fish-farms in which fishes included the shrimp- ‘white gold’ and common fishes (labeo rohita, catla catla) which were the key sources of income of the southern people of Bangladesh.

Figure 2: Coping strategies for overcoming the loss of fishes after Aila (N=240)

Source: Household survey, 2010
The households of the Aila affected area took three coping strategies such as raising an embankment surrounding a pond, changing of species- generating of salinity tolerant, and introducing the pond fencing by the net to overcome the loss of fishes. Data in Figure 2 depict that the uppermost 60 percent of the households accepted to raise the embankment of the pond so that water could not overflow during the cyclone, with the following 26 percent for altering fish species with the taste of water. Remaining 14 percent of the households also used the net fencing surround the pond to keep the fishes inside when the water overflows.

**Decreasing of crops yielding and coping strategies**

Cultivable land is important to produce crops for surviving of the households. Data in Table 7 contain information about the coping strategies by the factors of decreasing crops growing. The same table contains data from 172 households as the land of all households was not decreased. The same table depicts that the households took all four coping strategies when the crops yielding was impossible for the factors of the submerging of land and the insufficiency of tools for production. Moreover, three mitigation strategies were applied when the salt water entered the land during Aila, and only one strategy was taken for reducing the land fertility. Furthermore, the cultivation of hybrid crops as a coping strategy was counted the maximum among all strategies against the factors of decreasing crops yielding except in the case of a lack of tools where the highest (46%) portion of the households used the modern technology. Finally, 16 percent of households could not take any strategy and it was applicable for every factor of declining crops yielding.

**Table 7: Coping strategies for overcoming the loss of production by the factors of decreasing crops yielding**

<table>
<thead>
<tr>
<th>Factors of decreasing crops yielding</th>
<th>Coping Strategies</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Cultivation of hybrid crops</td>
<td>106 (100%)</td>
</tr>
<tr>
<td></td>
<td>Using of traditional knowledge</td>
<td>26 (100%)</td>
</tr>
<tr>
<td></td>
<td>Using of modern technology</td>
<td>22 (100%)</td>
</tr>
<tr>
<td></td>
<td>Receiving GO &amp; NGOs instructions</td>
<td>172 (100%)</td>
</tr>
<tr>
<td></td>
<td>No strategy</td>
<td></td>
</tr>
<tr>
<td>Submerging</td>
<td>42 (41%)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>18 (17%)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>10 (9%)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>18 (17%)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>18 (17%)</td>
<td></td>
</tr>
<tr>
<td>Salting</td>
<td>14 (54%)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>0 (0%)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4 (15%)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2 (8%)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>6 (23%)</td>
<td></td>
</tr>
<tr>
<td>Lacking tools</td>
<td>4 (18%)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2 (9%)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>10 (46%)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4 (18%)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2 (9%)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>22 (100%)</td>
<td></td>
</tr>
<tr>
<td>Losing land</td>
<td>14 (89%)</td>
<td></td>
</tr>
<tr>
<td>Fertility</td>
<td>0 (0%)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>0 (0%)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>0 (0%)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4 (11%)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>18 (100%)</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>74 (51%)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>20 (5%)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>24 (14%)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>24 (14%)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>30 (16%)</td>
<td></td>
</tr>
</tbody>
</table>

Source: Household Survey 2010

**Damaging of forests and coping strategies**

Figure 3 includes the information of all (240) households as the forest of all households was affected by cyclone Aila. Data in the same figure show that the highest percentage of the households (41%) planted
trees on the highland when they experienced full damage of the forest, with the following 39 percent was counted for afforestation. As is observed, the coping strategies including the plantation of the deep-rooted trees and the highland plantation were counted 30 percent for each when the households faced partial damage of the forest in Kamarkhola village. Finally, the percentages of dike plantation were almost the same for both types of damages of forests.

Source: Household survey, 2010

Discussion

The impact of cyclone Aila on infrastructure is clear at Batiaghata Upazila in Bangladesh. Maximum houses are identified as fully damaged after cyclone Aila, and people had very few places left for living. Very helpless condition of the cyclone-affected households is monitored. Family members following Aila had to spend a risky life that has a similarity with the concept of idiosyncratic risk - risks faced by households (Ghorpade, 2012). To rescue from the backward situation, the dwellers of households have taken coping strategies for two collective aspects: (1) searching for a shelter, and (2) reconstructing a house. Searching for shelter, dwellers chose to live on the embankment, house of the relatives, community shelter, and own broken house. It indicates the variation in the places of living. Additionally, variations are observed based on their household vulnerabilities. Empirical data suffice that the maximum percentage (67%) of the people who lost all their households chose the embankment than other types of damage groups. Moreover, people who build their new households on the embankment get supporting from the formal and informal mechanisms. The former mechanism has an exchange relation that includes taking a loan especially from the bank, microcredit organization and mahajans¹ in the village. The latter mechanism- informal- includes the supports of GO and NGOs, the assistance of relatives, involvement with politics and illegal connection of the household-dwellers. A widespread relief intervention was initiated by the GO, NGOs and national and international humanitarian agencies in the immediate aftermath of the cyclone. A relief intervention provided by GO and NGOs incorporates relief materials (foods, household goods, tools, clothes, etc.) and

¹ Moneylender of the village
these were distributed for about a couple of years ago to reduce the sufferings of the Aila affected people (Masud-All-Kamal, 2013). Moreover, the assistance of the relatives (28%) of the households is considered another informal social mechanism to recover after cyclone Aila. Societies of Bangladesh are based on a strong kinship system (Quisumbing & Maluccio, 2003; Mozumder et al., 2008) and the kinship networks tend to offer support to the relatives in a crisis. It is important that coping strategies of households as collective actions are originated from the existing social structure in the study area what sociologist Blau (1964) termed “particularistic”- integrative bonds enhancing unifying function.

In this paper, the socioeconomic aspect includes three variables, namely child education, health and income. We find a social vulnerability that creates differences in the human capacity responding to cyclone Aila in child education, health, and economic vulnerability in income. Education is a social factor for the development of any country. Being Bangladesh as a developing country, she must face many difficulties to build educational institutions. Unfortunately, natural hazard triggered disasters in different times in Bangladesh destroy the educational infrastructures. Cyclone Aila created three key barriers of education access of the children: (1) transportation barrier- the roads of the affected region are fully submerged, and no public vehicle is available except boat; (2) money shortage of guardians- the parents and other head of the households do not have enough money; and (3) lack of logistic support-it includes shortage of books, pen, bag, cloth and so on. Parents in households try to overcome the barriers to train their children by taking different coping strategies. Children are commonly found studying at home rather than attending school. Such action reduces communication and interaction with the teachers and classmates. Few children are trying to use indigenous logistic supports like a boat as a vehicle to arrive at school. Sometimes boat cannot reach the destination on time due to having bad weather or other disruptions. The delay of study starting of children is also noticeably observed in the affected region. Young students from 41 percent of the households, who lacked logistic support, could not continue their studies in time. It creates discontinuity and dropping out of students from the school. This study has similarity with the recent cyclone Idai which hit in Mozambique. It is estimated that around 305,000 children in Mozambique have had their education interrupted because of damage caused by Cyclone Idai that might connect dropping out of children from school for both the short and long term (UNICEF, 2019).

The second impact on the socioeconomic facet of cyclone Aila is fully understood as unfamiliar, serious and increasing risk to public health. Mainly four types of health impacts of cyclone Aila at Kamarkhola village are explored: wounded, malaria, kalazar and skin diseases. Most of the identified health effects were the result of infectious and waterborne germs of post-cyclone. About this World Bank (2000) suggested that Bangladesh is vulnerable to outbreaks of infectious, waterborne and other types of diseases. The damage to homes, water and sanitation facilities was particularly significant given that the population of Bangladesh are generally prone to contagious diseases, with respiratory and diarrheal diseases being the leading causes of death (GoB, 2008). Health problems increase vulnerability and reduce the capacity of individuals and groups to adapt to climate change (Rahman, 2008). In Kamarkhola village, mainly two coping strategies
were taken by the affected households: (1) dependence on traditional medicine given by the inefficient village doctor, and (2) dependence on the modern medicine mainly supplied by the open service of NGOs and the Upazila health complex. Moreover, a noticeable portion of the victims for all types of health condition never took any treatment. They depended on the natural settings of the body as a coping strategy. It could produce a result of chronic health burden in the future and reduce their working capability. It indicates the institutional lacking opportunities for coping strategies.

The income of households is identified as the final category of the socioeconomic aspect to be affected by cyclone Aila in various ways. It is observed that most of the households belong to the lowest income group ($1-$60) after Aila. It represents the economic vulnerability in the cyclone-affected area as the average monthly income of the day laborer in Bangladesh is around $122 (BBS, 2011) that is still double than the existing income range of $1-$60 at Kamarkhola village. The households reduce their daily meal, stop their children’s education, take a loan, receive aid and even get support from the relatives to survive with the poor income. These strategies are threatening to ensure the basic needs of a human being. It can be explained as materialistic deprivation and human being need to take such nonstrategic coping strategies for this deprivation comes when people do not have enough money to pay social participation as well as food (Bartley, 2004).

Agriculture includes three sectors in the study area: (1) fish, (2) forest and (3) crops. Firstly, cyclone Aila devastated the cultivation of fishes. The shrimp known as white gold is the key source of income in Bangladesh but now all ghers’ are demolished and inundated. People cannot produce white gold and other fishes again until the water is removed from that area. People have made different strategies like raising pond embankment, changing species and net fencing. Secondly, a lower number of crops especially rice production is observed following Aila due to inundation, salinity, lacking logistic support and loss of land fertility these affect enormous economic progress. In most of the cases land was submerged and gone under saline condition. Due to salinity 0.2 million ton of rice production is reducing in Bangladesh (Ayres and Huq, 2010). The effects of soil salinity on Aus\(^2\) production would be detrimental and Aman\(^3\) also suffers over two-fold yield reduction when grown under a severe climate change scenario (Habibullah et al., 1998). Such land decreasing reduced food production also. The affected households of Kamarkhola village took four strategies to overcome the decreasing of crops. They started to use hybrid paddy (BR), using traditional knowledge (using ash), using modern technology (tractor) and implications of GO and NGOs instructions. Moreover, coping strategies have a relation to the factors of decreasing crops. Having the intention to gain bumper crops, the households decided to produce hybrid paddy as a coping strategy when submerging, salting and loss of land fertility come into account for decreasing of land crops. Thirdly, the same impact is monitored on the forest at Kamarkhola village. Considering the situation of damage, it has been divided

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\(^1\) Where fish is cultivated seasonally.

\(^2\) A kind of rice that is grown in the rainy season in Bangladesh.

\(^3\) A kind of rice that is grown in the autumn season in Bangladesh.
into two types comprising (1) full and (2) partial damage. People lunched several coping strategies like afforestation, plantation of deep-rooted trees, and plantation in highland and dike plantation. Afforestation (39%) and plantation in highland (41%) are counted more as coping strategies for the full type of forest damages. These strategies reflect the usages of their traditional and scientific knowledge. Having traditional knowledge, households make an embankment or net fencing to protect fishes, use ash to fertile land growing crops, and practice afforestation and plantation in highland to grow the forest. But the households express scientific knowledge in practicing the changing of species especially nurturing new fishes for salty water, cultivating hybrid paddies (e.g. BR) and using of technology, and dike plantation after Aila. Finally, the interventions of GO and NGOs have been considered as social support to recover from damage. Furthermore, in the economic category, it is found a reciprocal relationship to cope with the cyclone-affected society from two angles. In the first case, households cope with the hazardous situation getting the sense from the existing structure. That is, people apparently depend on the tractor to plow land quickly that is already existed. Additionally, the second outlook of the dwellers related to the invention of some strategies these are not uncovered earlier, and now works as a new element for the structure of Bangladeshi society. For example, changing species to adjust with the saline water in the coastal area is remarkable.

Conclusion

The objective of this paper is to identify the impacts and coping strategies of the cyclone Aila affected households in southern Bangladesh. The southern people of Bangladesh experienced many incredible impacts due to cyclone Aila. These impacts are observed on the infrastructure-house; socioeconomic issues-child education, health and income; and agriculture-fish, crops and forest. Every household-dweller depicts their collective action during and post-Aila to recover from climate impact. Victims had to determine strategies for managing a secured place for building a house. For doing these, they showed formal-exchange, and informal-non-exchange mechanism. In socioeconomic issues, home study, late schooling, and using of boat to go school are frequently observed to cope with the study barrier of household’s children; depending on traditional and scientific medicines are taken to cope health burden; and reducing daily food at family, cancelling of child study, taking a loan and aid, and even enjoying support from the relatives are observed to cope with the daily life in case of negligible income of family. Finally, in agriculture, traditional (e.g. using ash to fertile land) and scientific knowledge (e.g. changing species with the taste of water) are used to cope with the devastation of fish, crops and forest. An important issue is that the coping strategy in every aspect varies according to the nature of the impact of cyclone Aila. To assist the cyclone-affected households with their existing coping strategies, the findings from the study identify the need to recognize the vulnerable households and promote coordinated disaster risk reduction programs to mitigate cyclone impacts and provide support for rebuilding post-cyclone livelihoods. As this study was conducted by following a survey method, it might posit the limitation of an in-depth study of all the aspects. While expanding a reality, one might select an in-depth study to have a detailed picture and to include a community level study.
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Unorganized Sector in India: A Theoretical Discourse on Women Domestic Workers

Shabir Ahmad Najar¹ and Wakar Amin Zargar²

Abstract: In India workers in informal sector are economically and socially backward, especially women workers. They are excluded both within the family and also within the wider society. So women are doubly exploited. The benefits of development with respect to economic development hardly reach this segment. Due to this factor women in informal sector are socially excluded. Women are mostly engaged with doing house hold work, which is never given importance and their contribution is never acknowledged. In present day world women are found working outside the homes for which they are paid. They are working both in the formal and informal sectors. The unorganized sector includes different sectors like, home based workers, construction laborers, waste pickers, and domestic workers. However, women are mostly found in performing domestic work. Domestic work is seen as low and impure occupation mainly performed by women and children, whose lives are still dominated by a caste system that assigned people his/her place in the society. Domestic work has a long history in India with both men and women working in others homes as servants. Women working as domestic workers are mostly socially and economically backward. The present paper has been written in order to understand the socio-economic conditions of women domestic workers in India. Also, the paper will throw light on various other problems like health, child rearing and sexual harassment faced by women domestic workers in India. The research paper will also highlight the various steps taken by government of India for the wellbeing of women domestic workers.

Key words: India, Women Domestic workers, Socio-economic, Sexual harassment, Policies

Introduction

Workers in unorganized sector are often defined as large number of men and women engaged with different types of economic activities based on their own accounts. It means workers in unorganized sector start business on their own without any assistance from government. India has huge work force working in informal sector with least social security provisions from government. Various types of work with which both men and women are engaged with in the Indian society include home based workers, self-employed workers, rag pickers, domestic workers, agricultural laborers and construction laborers. It is matter of fact that all these forms of employment can be defined as casual or temporary form of employment. Permanent form of employment is found only with in the formal or organized sector. Workers either men or women whose nature of work is casual or temporary, indicates that lot of workers whose employment is not

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permanent in nature. These workers mainly work on per day wages or on contract basis. Within this sphere of employment, workers can be terminated at any time, as they do not possess any written document as in the case of government sector, there are written rules with respect to duration of time, salary and different types of welfare schemes. All these things are lacking in informal sector. Informal workers are found all over India working in different areas like big industries, in agricultural sector and in service sector etc. Informal sector is greatly contributing towards the development of Indian society. Though it has been in existence in India from a long period of time. It is only in the 1970s that it drew the attention of the policymakers and researchers notably from the point of view of opportunities for participation in and reaping the benefits of development. Formal sector in India which received greater attention and money did not prove fruitful for creating employment avenues to the increasing workforce, this situation creates many problems for the growing workforce. When the formal sector was not able to absorb the whole workforce or to provide employment to whole workforce, this situation insisted the remaining workforce to find job avenues on their own. It can be said that the workforce who is working in formal sector is very less and the large section of the workforce is left without any job opportunity. In order to survive the surplus workforce was forced to find income generating jobs on their own. The emerging new class of workers which is known as informal working class are engaged with different types of activities in order to earn. It is matter of fact this sector is facing too many problems with respect to employment, job security, earnings, perquisites, social security and retirement benefits. The informal sector in India is working under very bad conditions, as this sector is lacking all those facilities which workers in the formal are provided (Sundaram, S.K.S. 2000). A brief mention of percentage of informal workforce in different states of India is mentioned below.
Figure 1: Percentage of Informal Workforce in Manufacturing Sector in various States of India

Bar chart as mentioned above (figure 01) shows clearly that in every state informal workforce (with in manufacturing sector) is very high. It shows that Indian society is largely dependent on informal workforce. The highest percentage of informal workforce is found within the state of Maharashtra this 99.18 percent and the least percentage of informal workforces is found within the state of Odisha this 66.02 percent.

It is a matter of fact that about 75 percent of informal workers in rural areas and about 70 percent workers are working in micro business units. Indian society is largely dependent on informal sector and this sector contributes highly towards Indian economy, despite its great contribution towards the development of India this sector is facing discrimination, discrimination in education field, skill and proper training and working environment are some major obstacles which come in way of large number of informal workers. Figure (02) as mentioned below shows the percentage of informal workforce in rural areas of India.
The bar chart as mentioned above shows the percentage of rural informal workers, engaged in different informal activities. Figure 2 highlights that majority of the workers in rural areas of India are self-employed. This means that self-employed workers depend mainly on their own accounts for running business. It is matter of fact that the figures as mentioned above, about various types of informal workers clearly indicates that formal sector is almost missing in rural areas of India. It speaks about the inefficiency of government to create formal job opportunities for rural people.

While looking towards the latest report of national sample survey organization (NSSO), the report reveals the percentage and condition of workers in informal sector in India. The report shows that during the year 2011-12, in rural areas of India nearly 97 percent of the workers are self-employed, 78 percent of the workers are casual laborers. Further as per the NSSO 68th round, which is the latest one show that 42 percent of the workers are regular/salaried employees. Figure (02) as mentioned above shows that the majority of the informal workers in rural areas of India are self-employed.

While in urban areas of India about 98 percent of the workers are self-employed, 81 percent of the workers are casual laborers and 40 percent of the workers are regular wage/salaried employees.
The bar chart as mentioned above shows the percentage of urban informal workers, engaged in different informal activities.

Figure 3 as mentioned above highlights that majority of the informal workers in urban areas of India are self-employed. It is clear that in both rural and urban areas of India, majority of the workforce is working in informal sector. A brief mention of the literacy rate of informal workforce in non-agriculture is mentioned below.
It is surprising that skill levels has not seen any noticeable change between the two NSSO Rounds (2004-05 to 2011-12) except among the diploma holders and graduates where the share of the informally employed has come down from 2.30 per cent to 1.46 per cent and from 9.13 per cent to 8.88 per cent respectively. This could be because with improvement in educational attainment the workforce aspires for formal jobs. Considering the low skill levels, the status of employment of the informally employed shows that majority are working as self-employed or casual workers which in turn keeps them outside the purview of the labor legislations.

**Objectives**

1. To study the living conditions of women domestic workers in India
2. To study the various steps taken by the government of India for the welfare and protection of women domestic workers.
3. To formulate a set of recommendations

**Methodology**

The present paper is primarily based on secondary data. Data has been collected from various sources like, books, journals, articles and government official documents. In order to make the research more empirical and authentic, the researcher apart from collecting data from secondary sources also sought help
from various researchers, specialized in the concerned research area. The email ids of the experts were taken from the published research papers, which are available online. The researcher sought help from the experts with the help of email communication. The views of the experts were incorporated in the research paper.

**Significance of the Study**

In India women population is slightly lower than the men. It means that women population is almost half of the total population. Women in India are playing a great role not only within the domestic sphere but also outside the homes as well. Due to various steps taken by the government of India for the welfare of women, women have excelled a lot in all fields. Further due to the impact of print and electronic media, negative perception against women has changed a lot. In past Indian women were not allowed to come out of the home and were supposed to remain busy with domestic work. But now the situation has changed a lot, now Indian women are proving their potential in every corner of the world. Women are greatly contributing towards the development of nation. Women who are working in formal sector as well as those working in informal sector are playing a significant role. Though a large chunk of women in India are working in different sectors of informal economy as compared to formal sector. Informal sector is in a fix, due to various issues like insecurity of job, unsafe working conditions, less wages, rude attitude of the employer, long hours of work, lack of social security provisions etc. all the sectors of informal economy are facing these problems. Though India has made considerable development in all fields especially after independence, but even after independence India has not been able to provide right to live life with dignity to all. Further India has not been able to provide decent employment opportunities to all. It is the result of this failure that a larger section of the India population is working in informal sector. Informal sector being in too many problems is still contributing 50 percent towards total gross domestic product of India. Informal sector has proven as a rescue for Indian society, but India has not taken the contribution of this sector very seriously. Due to lack of attention from government side, this sector is trapped with too many problems; talking about women domestic workers is not an exception. Women domestic workers are engaged with various types of activities like cleaning the homes, taking care of children etc. Keeping in view the importance of informal sector in Indian society, the present paper has been written to understand the role of women domestic workers and also the paper shall highlight various government steps taken for the welfare of domestic workers.

**Women Workers in Unorganized Sector**

In India women workers are playing an important role and they form an essential portion of work force. Not only is this but women’s participation in work is also increasing day by day. Two factors are very important which acts as hindrance in way of women’s participation in work, one is the existence of caste system and the second is the existence of patriarchy. These two factors narrow down the space for women to work outside home or to take part in different economic activities. Since the situation has changed much after
independence. The constitution of India has taken too many steps for the empowerment of women especially for those women who are socially and economically backward. Even after the independence situation has not changed completely, women workers are paid less as compared to men. As most of the women in India are working in informal sector carrying out different economic activities. Wage discrimination against women is more prevalent in agricultural sector or with those women who work in agricultural sector as laborers. (Report of the Working Group on Empowerment of Women, 2006). In the agricultural sector women are taking part in different activities like weeding, transplanting and harvesting. Though they are performing their role well but still they are paid less wages as compared to men. They are paid less wages because they do not possess skill and are counted in the category of unskilled workforce. Men are mainly concerned with the plugging of land and for this task minimum wages are fixed, as operating a tractor and water tube well is considered to be a skilled work. For performing this role men are paid high as compared to women. As in these activities there is no use of advanced technology as these activities are considered to be semi-skilled activities, this discrimination goes against the interests of women. In the era of globalization different types of chemicals are used in order to increase the agricultural productivity, women have become the victim of too many severe health problems like gynecological infections, arthritis, intestinal and parasitic infections (National Commission for Women, 2005). The percentage of women in unorganized sector is about 96 percent. It means in India majority of the women are working in unorganized sector. Women in informal sector works as construction workers, domestic workers and as agricultural laborers etc. Women as agricultural workers are mainly found in rural areas of India as agricultural activities are mostly performed in rural areas. Further in rural areas women are also working in the field of dairy farm and fisheries as well. (Dave, V. 2012).Women has remained always at the receiving end and their status is considered low as compared to men. They always have remained dependent on men for economic purpose, this situation has pushed women backward both within the family and outside the family as well (Wadhera, 1976).No doubt women have proved their potential in different fields but yet their contribution is not given too much importance. In India women constitute nearly half of the total population and they play a vital role in domestic sphere, in the rural field and also in urban economy, still their social and economic status is very low as per the data available on women from different sources like census and national sample survey organization (NSSO) etc. This situation is worst with urban women working in different sectors of informal economy. (Tripathy and Das, 1991).From the available sources it has come forth that among all the sectors of informal economy, domestic workers have worst condition and their income is low. It means domestic workers in India are paid very less as compared the work they perform. Due to this reason domestic workers are facing too many problems. (Sundaram, 1996).Domestic workers mostly carry out the house hold work like domestic workers are engaged with washing clothes, utensils, cleaning floor, cooking etc. Domestic workers not only perform these activities but also are doing other works as well which includes purchasing of vegetables, fruits, and soaps. Due to low earnings majority of the domestic workers live in slums. Living in slums due to poverty does allow them to live a colorful life. Their life appears very poor from all sides. Domestic workers in India have to do a lot of struggle for survival because of lack of
proper work, less wages, lack of social security, low social status and poor health conditions. All these conditions further accelerate their day to day problems. (Gathia, 1983). In some of the cases women workers in India have to work under dangerous situation, especially in other’s homes where there is absence of labor inspector. Women domestic workers have a double burden as there is greater demand for their skills as care-givers and service workers outside home but they also work inside home doing the same work which is unpaid.

As per the Domestic Workers Convention, 2011 (No. 189) in Article 1, domestic work is defined as:
(a) It means any sort of work carried out by a domestic worker for a household or households. (b) It implies any person engaged in domestic work within an employment relationship. (c) A person who performs domestic work only occasionally or sporadically and not on an occupational basis is not a domestic worker (ILO, 2013).

**Domestic Worker**

Domestic worker means a worker who performs domestic work either on full or part time basis, for which the worker is paid either in cash or kind. It means in return of the service rendered by a domestic worker, domestic worker is paid as per the work rendered. The relationship which exists between the employer and the worker is exploitative in nature, as the domestic worker is supposed to do a lot of work and has to remain in front of the employer all the time. The domestic worker has to obey the orders of the employer. It is a matter of fact that domestic workers are mostly women and are hired by the female employer. Broadly speaking domestic work includes different types of work such as manual work, cleaning the floor and taking care of the new born babies (Anderson, 2000).

**Women Domestic Workers in India**

Domestic workers are mostly found in urban areas, as within the urban areas there are number of women who go for work outside the home both in government as well in private sector, due to this reason they are not in position to perform the domestic work themselves or to carry out home work on their own. Due to lack of time, these women hire women domestic workers which saves their lot of time. In urban areas millions of women who are living a life of poverty, prefer to work in others homes and carry out different domestic works. Employing domestic workers has become very common in the urban areas of many cities where a large number of women go out for jobs. Domestic workers save much of the time and energy for the working females of modern cities. On the other side in the modern era, keeping a domestic worker has become a fashion especially in urban areas. As urban working women are not ready to perform domestic work on their own. Keeping a domestic work is considered as a sign of high social status and those who do not keep domestic worker are looked down with in the society. Contemporary life has become so complex that modern women is not ready to do any home, as she considers it as an insult. Being economically good and in order to maintain social status with in the society, modern women prefer to hire a female domestic worker. As women domestic workers are easily available and are hired on very less wages. Poverty prompts
these poor women to work on less wages. Paul, B. et al., (2011) have mentioned that in modern era those who do not keep a domestic worker are discriminated with in the society. Society has changed too much and in this fast life those households who do not keep a domestic worker whether they can afford or not, people consider those as poor and assume these families cannot afford to keep a domestic worker. The reality is that due to societal pressure every family who can afford are trying to keep a domestic, in order to gain social prestige. Elite and middle classes of the society have maintained such a decorum were it seems necessary to have a domestic worker. Also it can be argued that the new middle classes have developed a life style which has increased the demand for domestic workers (Qayum, R., 2009). Though there are different views for keeping a domestic worker, but two factors are most important for hiring a domestic worker, one is being economically sound and the second is being economically poor. Poor women due to lack of any job, prefer to work as domestic worker. Elite people are habitual of living a luxurious life and are not ready to do domestic work on their own and in order to save time for other activities they keep a domestic worker (Sharma, 2016). Work which the domestic workers perform is carried out in others homes, domestic work consists a series of tasks like domestic workers perform the job of sweeping, cleaning, washing clothes, cooking, rearing children, taking care of elderly, and disabled etc. Apart from these tasks domestic workers also perform various types of activities as well, which includes gardening, driving, and security services. In some cases it is found that the employer and the worker reside in same area or locality. Some domestic workers work on part time basis and also work in various homes. It is proper to mention here that women domestic workers are mostly engaged with cleaning the home and taking care of new born babies while male domestic workers are performing the job of gardeners, personal drivers and security guards. Within domestic work there is wage discrimination between men and women, as males are paid more because of being engaged with driving and gardening. As these professions require skill as compared to cleaning and washing clothes. Almost all the domestic workers are from down trodden sections of the society. It means that all domestic workers are socially and economically backward. While classifying domestic workers, they can be broadly classified as full time, part time, skilled and semi-skilled workers. In India Draft National Policy on Domestic Workers as recommended by the Taskforce on Domestic Workers provides a definition of a domestic worker as “a worker is defined as domestic worker who is employed for remuneration which can be paid either in cash or kind. The remuneration can be paid by the household directly or it can be paid through agency which provides work to domestic workers. It is important to mention here the different types of domestic workers on the basis of nature of work they perform. A brief description about them is mentioned below:

a) Part-time worker: Means that worker who does not work at one place only but works at different places or homes for definite hours per day.

b) Full-time worker: These type of domestic workers work in a single house for a fixed number of hours per day and after completing work full time domestic workers return back to their homes.
c) Live-in worker: Means that domestic workers who not only work in others home but also reside within the premises of the same family. It means this category of domestic workers are provided space for living too along with work. These types of workers are not supposed to return back to their homes after completing their work, as they are provided some sort of shelter by the employer.

As in India no authentic data is present which can provide the exact number of domestic in the country. But as per the national sample NSSO (61st Round, 2004-5), as per their statistics there are almost 4.3 million domestic workers with in the country. Though domestic workers are providing various types of services but their contribution is never taken seriously. In case of domestic workers there are no rules formulated by the government and no formal relation is found between the employer and the worker. Further there are no written contracts on the basis of which domestic workers are hired. It means their nature of work is temporary and can be dismissed from their work at any time. This sector lacks almost all facilities due to lack of organization, poor bargaining power, no legislative protection, and inadequate welfare measures, with no provision for weekly holidays, maternity leave and health benefits are some of the key issues that need to be addressed. Due to least number of legislative provisions for this sector, this sector is facing violation from all sides, especially at work place. Domestic workers are forced to do long hours of work and are paid less as compared to the work which they render. Most of the domestic workers are forced to work for 8 to 18 hours per day. Within this sector there is lack of social security with respect to job. In India domestic workers represent the most marginalized sector and are facing discrimination from government as well as from wider society. The exploitation is more in case of women domestic workers, not only they work for long hours but are also prone to sexual harassment especially those women domestic workers who reside with the employer. Domestic workers appointment and salaries are determined on the basis of task they perform, skills they possess and the number of hours they work. Too many debates have taken place with regard to the salary of domestic workers, either they should be paid as per the number of hours they work, per week, part time basis or full time basis. But still nothing concrete has come forth which can prove fruitful for domestic workers (WIEGO, 2017). The worst feature of the domestic workers is that they lack union. It means that women domestic workers are not unionized. Lack of unionization among women domestic workers has some positive implication for them, as this weakness allow various organizations to fight for their rights by way of highlighting their various issues in front of the government. This prompts the government or policy maker to take some steps for the welfare of domestic workers. A vast majority of women who work in informal sector, particularly domestic workers are not unionized (Chen, et al., 2006). From all sector of informal economy, domestic work is considered as the worst type of work. As this occupation is looked socially down and has never received any serious attention from the government. This work has created a negative picture of all those concerned with this occupation especially for women. Discriminating women has its deep roots in capitalistic and patriarchal discourses (Francois, 2008).
Major Issues of Domestic Workers in India

India has huge population living below poverty line. Due to poverty poor people face lot of hard ships in their life and in order to survive they have to do any sort of job available to them. As it is obvious because of being poor and illiterate, they cannot expect a government job or a private job for themselves, so they take part in those economic activities which are looked down socially. In India this situation is more prevalent among workers in informal sector. Informal sector is the dominant sector in Indian society which not only provides employment opportunities to millions of poor people but this sector contribute greatly towards the development of Indian society. As this sector is playing a positive role for the development of society but this sector has never received any serious attention from the government side. Both men and women are engaged with this sector. Women are playing a vital in informal sector but face too many discriminations from all side. Most of the women with in informal sector work as domestic workers, like other sector of informal economy has many problems; same is the case of domestic workers. There are various problems associated with domestic workers. A brief about them is mentioned below.

• **Insufficient Wages:** The first and the foremost most problem associated with women domestic workers is wage discrimination. Within informal sector domestic workers are the most marginalized, as they are paid very less as compared to the work they perform. Due to lack of proper wages fixed for them, they are easily exploited. Further domestic workers are doubly exploited due to lack of bargaining power.

• **Poor Working Conditions:** Domestic workers are supposed to work for long hours and have to follow the orders of the employer. Long hours work affect their health and also disturb their social life as well. This problem is more sever with those women domestic workers who live within the house of the employer day and night. As these workers are provided some shabby place for living by the employer. These domestic workers are truly unsafe, as there is no safety provision form them.

• **Lack of Rules for Work:** The most critical problem associated with women domestic workers is lack of proper rules with respect to the number of hour’s work they are supposed to work per day. This problem is more associated with live-in domestic workers, who have to remain available all the time. They hardly get any holiday which they can spend with their family members.

• **Social Isolation:** An individual cannot live alone and needs to have social relations with wider society. As most of the women domestic workers are migrants. Being cut off from their family members and relatives, they feel socially alienated, which ultimately affect their life. Due to nature of work, they remain cut off from their children and other family members. This alienation through them in a stage of anxiety and depression. Further this very nature of work not only affect them but also creates schooling for their children.

• **Prone to Sexual Harassment at Work Place:** There are different problems which the women domestic work face but the most critical problem associated with women domestic workers is the problem of sexual harassment at work place. As these women work at another households were they can be easily sexually harassed by the employer. Sometimes being illiterate and poor, employer take advantage of the helplessness of the worker and exploits them easily. This is the most inhuman thing which the women
domestic workers face. Due to social setup and because of poverty, these women cannot raise their voice against this cruelty, as they know; no one will listen to them.

• lack of Social Security: Unorganized sector as whole is having least social security provision from government side and same is the case with women domestic workers. There is lack of old age security, lack of maternity benefits, and lack of proper wages with in this sector. Due to lack of all the facilities this sector is in crises. This condition makes women domestic workers more vulnerable lot of the Indian society, especially during old, these domestic workers face a lot of problems during their old age, as there is no old age security provision on the basis of which they can live their old life and meet the requirement of their life.

Government Steps for Women Domestic Workers in India
It is a matter of fact that almost all the categories of informal sector are belonging to weaker sections of the society. They are not only economically backward but are also socially and psychologically backward. Due to poverty they are not in a position to receive proper skill, with the help of which they can get a suitable job for themselves. Women domestic workers face a lot of issues which makes their life more vulnerable. Keeping in view the problems associated with this sector, the government of India has taken some steps for the protection and welfare of domestic workers. Domestic workers have been included in The Unorganized Workers’ Social Security Act (2008) and the Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal Act 2013). Apart from the acts as mentioned above, the government of India has also framed some other policies for women domestic workers as well which includes Rashtriya Swasthya Bima Yojana (RSBY) to cover domestic workers and the notification of Minimum Wages by a few State governments. In India still there is lack of exact figures about the number of domestic workers working in India, the figures vary from 4.75 million to 90 million as per different sources. Though the figure is not exact but one thing is very clear that their number is very high. The government of India has included domestic work occupation in the list of hazardous child labor (2006), which says it is unlawful to indulge boys and girls below the age of eighteen years in any sort of work.

Findings of the Research
Domestic workers are mostly women who migrate from rural to urban areas in search of work. Due to migratory nature of work, domestic workers are not in a position to organize themselves, so that they can collectively demand and fight for their rights. From the research it has also come forth that domestic workers are working on contract basis. This means that their nature of work is not permanent and can be terminated from job at any time. Insecurity of job is the major problem associated with women domestic workers. Further domestic workers are forced to work for long hours and are paid very less. Being illiterates and poor, domestic workers become an easy victim for the employer. The situation is more critical with those domestic workers who are living with their employer. These domestic workers mostly remain unnoticed and out of the reach of the government. Such type of workers are prone to sexual harassment. The research
has also revealed that there are no written rules from government side for domestic workers with respect to hours of work per day, wages and conditions of working environment etc. the socio-economic conditions of women domestic workers in India is very miserable. Due to less earnings, they are not in a position to take nutritious diet and due to lack of necessary nutrients in the body, they become prone to too many diseases. For obvious reasons, it is extremely difficult to get accurate and reliable data on the number of domestic workers. The constitution of India provides equal rights and opportunities to women. It does not make any discrimination on the grounds of sex, color and religion. Indian women are also responding positively to this changed socio-political situation. This does not mean that the women are completely free from problems. On the contrary, the changing situation is causing them new stresses and strains. Some of the major problems haunting the modern contemporary women are such as increasing violence against women within and outside family, neglect of health, unemployment, harassment at work place, etc. This situation is more critical with women belonging to socially and economically weaker sections of the society. Due to illiteracy, these women cannot find for themselves a government job and in order to live, they start working in informal sector under health hazardous conditions which ultimately affects their health badly. Lastly the research has revealed that there is almost no social security provision available to women domestic workers, which makes their life more miserable. Though there are various provision which exist on papers only for women domestic workers.

Conclusion and Discussion
Domestic work constitutes one of the major sections of informal sector and this sector is increasing day by day. This sector is providing employment to large number of poor and vulnerable people of the Indian society. Domestic workers are more prevalent in urban centers of India as compared to rural areas. Poor people migrate from rural to urban areas in search of job. Male migrants mostly work in the construction sector and women migrants work as domestic workers or home based workers. But most of the women are found in domestic sector and offer their services to elite class of the society. Women domestic workers work for long hours in other households, for which they are paid very less wages. Most are untrained and unskilled and often are ready to work at wages far below the prevalent market rates, making them further vulnerable and deprived. Given the large numbers and the enormity of the problems that this sector of workers face, the steps taken by the government remains grossly inadequate. After Independence, the Government passed more than 40 central Labor Legislations. Nevertheless, these legislations have benefited only the workers of the organized sector, when in actual fact 93 percent of workforce fall into the unorganized sector. Due to lack of government regulation for this sector and because of innocence, women domestic workers are facing a lot of problems. Need of the hour is that some serious steps from government side should be taken for the protection of women domestic workers. Proper steps in the form various acts should be taken for the protection of women domestic which includes both part time and full time domestic workers. Apart from government non-government organizations can play a significant role for the welfare of domestic workers. Their job should be only to notice the women domestic workers and the condition
under which they are working. Non-government organizations can put forth the conditions of domestic workers in front of the government, so that government can take steps for their protection. Government should take some separate steps meant for the domestic workers only. Assistance in the form of social security should be provided to domestic workers, this social security should be provided throughout life. Child domestic labor either male or female should be banned and those engaged in deploying children on domestic work must be given strict punishment. Children need to be protected from all sorts of problems, as children are real asset of the country. Government should frame a body which will check either the funds released by government for women domestic workers has reached to them or not. As early as possible change should be brought in the administration of the government from top to bottom, otherwise the future of India appears very dark. India need to protect its informal sector, so that India can develop from all sides. Protecting women domestic workers is not the job of government only, civil society can play a greater role in it. They should not consider a poor women domestic worker as an opportunity but must consider her as their own family member. They must consider her as their responsibility. A responsibility to protect her, responsibility to provide her due wages. If this thinking will prevail among the citizens of India, definitely informal workers, above all India will emerge as shining India. The trend of informalization would be enhanced with an improvement in skill levels of the workforce that match the requirements of the job market and at the same time improve the bargaining power of the workforce to settle for decent wages, social security and job security.

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Female Employees in Japan: Case Study of a Japanese Software Company

Tulika Bhattacharyya

Abstract: Under-representation of female employees and the absence of women in key positions in Japanese Software Companies reflect the existence of employer paternalism. Patriarchal power relations mainly dot a gender-linked allocation of social roles which are the product of everyday interactions and practices. Patriarchal norms and associated subordination are internalized in by the female employees in the present day society and it operates in professional, personal as well as social life. The paper attempts to unveil the different dimensions of traditionally established gender power relations still alive in our present day society, by dotting on a set of theoretical framework on patriarchy and empirical findings in Japanese software companies through understanding how ‘patriarchy’ as a system affects the life of highly educated women in Japan. The findings reflect that the female employees have been challenging and improvising the patriarchal norms.

Key words: Patriarchy, Female employees, Japanese companies

Introduction

Japan has the world’s third-largest economy. However the economic status of Japanese women is much lower compared to the women in other advanced nations (OECD, 2012). Among 144 countries considered in a study, Japan’s Gender-gap ranking is 11, which is much subordinate to the position of other developed nations (Global Gender Gap Index Report, 2016). The women in Japan are negligibly present in the workforce, further lower are their presence in the significant positions of organizations. Patriarchy in Japanese society and the industries has often been cited as a major reason behind it.

Theorizing Patriarchy in Sociology

Patriarchy refers to the male domination both in public and private spheres. Patriarchal norms are maintained through a variety of ways which includes upbringing (reflecting the social expectations), discrimination (in hiring, promotions, giving credit, giving opportunities, etc.), social arrangements (family, competitive hierarchical occupations, gender division of labor), force (sexual harassment), lack of facilities

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(for training, child care) and laws and policies (which lead to exclusion from occupations, unequal pay, age discrimination etc.). In this way, the term ‘patriarchy’ describes the power relationship between men and women as well as addresses the root cause of women's subordination (Sultana, 2011).

In analyzing gender inequality, the perspectives held by feminist theory are important, although they contrast markedly with one another. While liberal feminists look for explanation of gender inequalities in social and cultural attitude, they are charged of not acknowledging the systematic nature of women’s oppression in society. Radical feminists, who accuse them of encouraging women to accept an unequal society and its competitive character, believe that men are responsible for and benefit from the exploitation of women. Marxist feminism has a different view: as Engels argues, that under capitalism, material and economic factor underlay women’s subservience to men, because patriarchy has its roots in private property. Seeking to defeat both patriarchy and capitalism, socialist feminism calls for the restructuring of family as a means to end domestic slavery and the introduction of some collective means to carry out child rearing, caring and household maintenance. Different from all the above theoretical perspectives, post modern feminism challenges the epistemological idea that there is a unitary basis of identity and experience shared by all women. It encourages the acceptance of many different standpoints as equally valid, acknowledging the existence of many different individual and groups, all of whom have very different experiences such as heterosexuals, lesbians, black women, working-class women, etc. (Giddens, 2006).

Gender and Employment

Walby (1990:20) has distinguished two distinct forms of patriarchy: private and public. ‘Private patriarchy’ is the domination of women occurring within the household whereas ‘Public patriarchy’, is more collective in form. Women are involved in public realms, such as politics and the labor market, but remain segregated from wealth, power and status. Walby (1990) defines Patriarchy as “a system of social structures and practices in which men dominate, oppress and exploit women”. This definition underlines the importance of viewing patriarchy as a structural phenomenon rather than one perpetuated by the individual exploitative man. Walby is concerned with the depth and inter-connectedness of gender inequality when he puts forward the six structures composing patriarchy that independent as well as interacting with one another as follows:

1. **Production relations in the household:** women’s unpaid domestic labor such as housework and child care is expropriated by her husband.

2. **Paid work:** Women in the labor market are excluded from certain types of work, receive lower pay and are segregated in less skilled jobs.

3. **The patriarchal state:** In its policies and priorities, the state has a systematic bias towards patriarchal interests.
4. **Male violence**: Women routinely experience and are affected by male violence which is patterned and systematic.

5. **Patriarchal relations in sexuality**: This is manifested in ‘compulsory heterosexuality’ and in the sexual double standard between men and women where different rules apply for sexual behavior.

6. **Patriarchal cultural institutions**: A variety of institutions including media, religion and education produce representations of women within a patriarchal gaze. These representations influence women’s identities and prescribe acceptable standards of behavior and action (Giddens, 2006).

As she distinguishes, all these six structures composing patriarchy are operating in the private and the public spheres of social life, dominating the lives of women. Along with patriarchy operating in the private sphere, oppression which exists in the public sphere is also intense. In a patriarchal society women’s pinnacle of achievement is relished as marriage and motherhood and they are left with the responsibility with the child care. This explains why women’s exclusion and marginalization continues unceasingly in the public sphere. Women’s role as mother structure their whole lives due to which many of them opt for part-time working, which is followed by low pay. There might not be any reason why women should care for children and perform the bulk of house work. However, in the world of privatized reproduction, of rigid sexual division of labor followed by unequal pay, there might not be any alternative for most families; thereby making it more rational for the ‘women’ to stay at home and thereby the vicious circle continues. With regard to oppression in public sphere, Martin (1990) views patriarchy as a set of social relationship which provide for the collective domination of men over women. It is manifested in unequal salaries for similar work, in discrimination, in legal inequality, in unequal expectations, in patterns of inter-personal dominance and submission and other direct violence.

Most key positions in dominant social structures like government, state bureaucracy etc. are controlled by men in patriarchy. Particularly important are the gender-typing of particular task, work styles and occupations and the association of top positions with masculine values of competition, individualism, emotional aloofness and instrumental rationality. The power, prestige and privileges enjoyed by top bureaucrats thus depend on the subordinate position of women in both private and public realm. In order to maintain the status quo and inbuilt power structure, the top bureaucrats use their power in the bureaucracy to contain women in their subordinate roles in several ways:

- Formal exclusion of women from top position
- Discrimination against women in hiring and promotion
Promoting conformity to the bureaucratic values of emotional aloofness and technical rationality as a means of deterring or restraining women who operate best in an environment providing emotional support and opportunities for cooperative work.

Creation and maintenance of general linked job categories which tie women into lower level positions;

Maintenance of male career patterns which require mobility, full time work and no interruption (for example – child rearing);

Maintenance of on-the-job work organization which excludes integration of child rearing and work and opposition to alternatives such as independent work at home or neighborhood based decentralized office arrangements;

Supporting other elite groups of similar practices, such as when trade union elites do not protest against corporate sexism; and

Lobbing and applying political pressure to maintain policies that keep women in subordinate positions.

In these or other ways the power that men have as top bureaucrats is used to keep men collectively in a dominate position over women.

Gender relations are the product of everyday interactions and practices (Connell, 1987, 2001, 2005). The actions and behaviors of people in their personal lives are directly linked to collective social arrangements in society which are continuously reproduced over life time and generations; but they are also subject to change. Connell identifies three aspects of society- labor, power and cathexis. Labor refers to the sexual division of labor, both at home and in labor market. Power operates through social relations, such as violence, authority etc. Cathexis includes dynamics within intimate personal relationships. Through these three areas of society, gender relations are structured on a societal level in a particular gender order. ‘Gender Regime” is the play of gender relations in specific institutional settings (Giddens, 2006).

These theories reflect how patriarchy operates in the private and public sphere and how they both affect each other. Although this system is a part of historically enforced traditional ideology, it might not be regarded as wrong to say that it makes no sense to continue such discrimination, in the age of modernization and technological advancement.

Bourdieu (1997) explained the relationships between habitus field and practice in order to explain how patriarchy and the associated disciplinarily regime of femininity is socialized and internalized by the society and to work out the possibility of transformation in the norms. Habitus is the mental or cognitive structure through which people deal with the social world. It is the series of internalized schemes through which they perceive, understand, appreciate and evaluate the social world. Habitus produces as well as it is produced by the social world. Field denotes the network of relations that exists apart from individual consciousness and will. There are different kinds of fields in the social world like
economic, domestic etc. The position of various agents in the field is determined by the amount and relative weight of the capital they possess. According to Bourdieu’s theory of practice individuals are guided in their practice by habitus, allowing them to accommodate to new situations and innovative practices. Therefore, individuals are neither totally free agents nor passive products of social structures. Social life is neither exclusively subjective nor exclusively objective.

- Bourdieu’s theoretical framework with the concepts of *habitus* can explain patriarchy and the adherence of men and women towards its norms. The conception of habitus can be applied to patriarchy where it should be perceived as a guideline, directing social norms. In a patriarchy of society, men internalized their relative hierarchy of positions and established solidarity in their behavior pattern, enabling themselves to dominate women. Women on the other hand confirmed naturally and voluntarily to their subordinate status and as a result of their long term exposure, occupation and socialization in such a social setting. Even though patriarchy is deeply rooted in the society, it operates only as a set of loose guidelines as habitus, leaving room for improvisation and innovation on the basis of the capital and associated power acquired by women. Hence, it is not only constraining but also enabling. When Bourdieu states that social life is neither exclusively subjective nor exclusively objective, it implies that women are neither free agents nor passive products of patriarchy of social structure. Scope for improvisation and innovation unravels the possibility of modifications in the patriarchy of social structures.

**Patriarchy in Japanese Society: A brief history**

The major causes of the humble status of the women in Japanese companies, lies in the Japanese society’s attitude towards its women, since olden times. In Edo era (1600-1867), women were not involved in activities outside the home, and thereby kept ignorant. In the Bushi-do society, women were kept inside the home and were not involved in academia and literature. In the Meiji period (1868-1915), the government’s policy focused on militarism. Since then, the Japanese society became formally patriarchal. This was followed by capitalism and the start of a new "male-centered society" (Koshal et al., 2004). In every society, patriarchy assigns ‘gender’ a particular socio-cultural meaning. Martin (1990) mentioned that masculinity is naturally seen to have dominance, confidence, strength, competition and rationality as its differentiating features; in contrast, femininity is linked to submission, caring, nurturing, sensitivity and emotionality. Masculine values are the ones valued most highly for positions of power. Ironically, such constructed patterns of masculine and feminine behavior are used to justify men holding higher positions and most women being in sub-ordinate positions.

The paper attempts to understand the life of educated women employees in Japanese companies by interpreting how patriarchal norms and associated subordination is internalized by these women and how it operates their social life.
Methods:

These theoretical finding is applied on a group of working female employees in a Japanese software company, who are expected to have acquired the economic, social, cultural and symbolic capital necessary for bringing about improvisations in the patriarchal social order. The female employees working for systems and software development have been selected, as they are reasonably educated, have enough financial independence and skills and also good social ties. Japanese society has been traditionally patriarchal and it still rules. Hence this study might help to understand how patriarchy works on women empowered with cultural, social, economic and symbolic capital. Most of the young female employees have same class positions because of their job status, which produces a common habitus. However women are often employed in the position of ippan soku (support staff) in Japan, but in the particular software company all the young professionals is recruited as sogo soku (permanent staff). This common habitus structures their social practices- by setting the guidelines and limits- although it allows for individual innovation. Thus this empirical study might help to understand the zones in their life where patriarchy still exists and how they handle this situation.

After obtaining informed consent from the participants, open ended semi-structured interviews, and observation method – both participant and non-participant methods – were used for collection of appropriate information. All the female employees in the software company took part in the study. Personal communication between the male and female employees of the software company and direct interaction of the researcher with the male employees were also analyzed. The semi-structured interviews were transcribed and content analysis of the interviews was done using Nvivo qualitative software. The themes that emerged from the analysis are discussed below.

Findings and Discussion:

Nowadays, the particular software company recruits people, irrespective of their gender, with the necessary qualification in engineering and computer skills. Often people without expertise are recruited if they have the potential, and are trained by the company later, which is a typical feature of Japanese companies (see, on-the-job training- OJT). The competitive nature of work in software companies has facilitated the reproduction of the existing environmental gender relations. Although no immediate gender difference in relation to technology or team-work practices could be detected (except for language/ communication patterns), women are least likely to perceive skill development and promotion opportunities with their work place, if compared with men. Some clear differences exist, in the area of working flexibility and working under pressure. The interviews revealed that the female employees were allowed to leave office before 9:00p.m., for security reasons and they were also allowed to work for lesser number of hours per day, when their children were young, if they were ready to compensate that with their salary. For women, meeting the
job expectation was often harder than men, as they were burdened with traditional expectations for performing certain roles in family and in society. Therefore, while the initial basic pay rates were relatively similar (and salaries were higher compared to women working in other sectors) appraisal systems can still have a tendency to create divergence between the economic benefits of female and male employees. Although both male and female employees often find their jobs to be very stressful, but only female employees were found to take time off from their work for child care, or care of the sick and the aged. Three male employees in the company were found to be diagnosed with high level of stress, however they did not took time off, and became window-side sitters in the company. Many women in the particular company discontinued their work after giving birth. On the course of the interview, most of the female employees revealed their dissatisfaction and challenges of their present job requirements. They also stressed on their worries about long term income security, because of the declining birthrate and economy and the emergence of western management styles in Japan.

Although at the recruitment phase, both male and female applicants were believed to have equal technical skills, however it becomes almost impossible for women to get promoted. The following chart shows the disparity between the total number of male and female employees in all designations in the software company.

**Table 1: Gender and Hierarchy in Office**

<table>
<thead>
<tr>
<th>Designation</th>
<th>Gender Category</th>
<th>No. of Persons Belonging to the Specified Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group Leader</td>
<td>Male</td>
<td>24</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>0</td>
</tr>
<tr>
<td>Line Manager</td>
<td>Male</td>
<td>11</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>1</td>
</tr>
<tr>
<td>Junior staff</td>
<td>Male</td>
<td>158</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>26</td>
</tr>
</tbody>
</table>

The table shows the age distribution of the employees of the particular company, along with showing the unparalelity between the two genders. The left hand column provides us the data for the male employees and the right hand column provides us the data for the female employees. All the employees were categorized under the following age groups: 20-24, 25-29, 30-34, 35-39, 40-44, 45-49, 50-54, 55 and above.
Fig.1 shows the age distribution of male (left hand side) and female employees (right hand side). There exists a huge difference between the total number of male and female employees within the organization and this difference remains persistent among all the age groups, except in the age group of 20 – 24. The Japan’s Office of Gender Equity (2006) attempted to provide greater opportunity and protection to women and due to this the female employees in the age group 20-24 are more as compared to their male counterparts. The figure reveals that the maximum number of female employees falls in the age group of 25 to 29 and the number of female employee’s declines rapidly beyond that age. Probably this may be the average age of marriage and child birth in Japan whereas the maximum number of male employees is in the age group of 45-49. The lowest number of women employees belongs to the 45-48 age groups whereas the women above the age of the 49 are rare in the organization.

Figure 1: Gender and Age distribution
Figure 2 shows that a total of 193 male and 28 female employees were working in the organization. Only 8 female employees were married. Only 5 female employees working in the organization were having kids. Married women professionals who felt empowered as software professionals and continued to work after marriage and child birth regarded their responsibilities to their families as important and consistently give their families higher priority than work. Interestingly all these women were belonging to families with dual income. As men know that women prioritize their family and culturally feel that’s the right thing to do, they seldom criticize their female colleagues.

From the inception of the organization in 2003, no women employee has been promoted to the senior manager position showing less trust in the women leadership or due to the high attrition rate of the female employees because of the tendency of leaving the organization after the marriage. No female junior managers were working in the organization during the period 2003 – 2005, whereas from 2006 to 2015 only 3.4% of the employees were working as the female junior managers.

Nowadays the company tries to provide young female employees with the sense of empowerment by providing a sense of felt equality existing within the company. With this empowerment they claimed that they enjoy greater respect and freedom in the society. Although most of the young female employees were
ready to resign from their job, in order to spend time with their children, many of them said that they would prefer to have husbands who would allow them to continue their job, after marriage. However, direct interaction with the male employees of the company revealed that they would not prefer to have working partners.

Concentrating on the problems faced by working women as a result of their dual responsibilities of housework and work, the study found that they were concerned mainly with household work and childcare. They felt that their chances of promotion and growth declines because of their inability to travel long distances regularly, for purposes of work. They felt that this hinders their chances for establishing and maintaining their position and gaining specialized training. Japanese women being socialized in patriarchal society are tuned to be more nurturing, caring and supporting of relationships than men. However the opinions of the younger female employees were slightly different than those of their elders. They seemed to be more ambitious and have plans for their careers. The female employees also mentioned that their chances of obtaining senior and more influential administrative positions are also affected by their gendered socialization and the consequent social restrictions laced upon their mobility and behavior.

Married women professionals, who regard their responsibility towards family as more important than their career, are those who have been socialized and internalized patriarchal values. Therefore they find it difficult to meet job expectations and are less likely to perceive career development opportunities. Male employees by not criticizing the attitude of their female colleagues assigning priority to family, indirectly reinforce the patriarchal norms. Men working in the systems and software industry have high income and therefore they might not require their wife’s income. This might be the reason why most of the male employees responded that they would prefer not to have working partners.

The study also revealed that the working women invariably need the support of the family members and the society. Women were also found to resign for child care and care of the aged and they found re-employment to be quite difficult because of age based restrictions. This also brings out the patriarchal ideology which associates women with private sphere, thereby expecting her to subordinate her personal career for the interest of the family. This entire system shows how male as well as female internalize and reinforce the patriarchal norms, as being normal. However it might not be disagreed that this is gradually changing in some areas, like absence of gender difference with respect to technology or teamwork practices. In spite of the restrictions placed by mobility, they try to overcome it with the help of technology.

Conclusion

Female employees in Japanese software companies are still under clutches of patriarchal priorities and therefore it is difficult for the female employees to get promoted, although they have excelled themselves and equaled men with handling technology and team work. However, being educationally, financially, socially as well as professionally competent, female employees have been challenging patriarchal norms
to some extent, without violating the patriarchal norms. This might be regarded as a stepping stone in the creation of a world free from gender based hierarchy.

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Social and Health Consequences of Child Labour: Implications for Sustainable National Development in Nigeria

Adekunle Victor Owoyomi

ABSTRACT: The adverse effects of child labour on the children’s psychosocial development continue to pose grave concerns about the overall quest for sustainable national development in most low-income countries including Nigeria. Exposing a working child to sexual abuse and direct experience of ill-health status have been severally put forward by child protection specialists, researchers, non-governmental organizations (NGOs) and international agencies. However, few studies have empirically documented its implications for a sustainable national development in the extant Nigerian literature. Hence, this study sought to examine the social and health consequences of child labour and its implications for a sustainable national development in Nigeria. Against this backdrop, a cross-sectional survey study was carried out in Shomolu Local Government Area of Lagos State, South-western, Nigeria. 400 Questionnaires were administered to all consenting children. The cross-sectional survey involved a four-stage sampling technique, a total of 389 children, 228 males, and 161 females, participated in the survey. Their age range was 6-17 years. Data were analysed using the descriptive statistic and Chi-Square ($\chi^2$) analytical tools to test the level of significant difference. Findings show a significant relationship between child involvement in child labour and experience of sexual abuse and exposure to the ill-health status at the level of (0.001) and (0.032) significant difference which is less than the p-value of 0.005. We recommended that implementation of child’s right and protection policy should be given effective and adequate priority for Nigeria to be able to achieve a sustainable national development.

Keywords: Child labour, sexual-abuse, ill-health status, sustainable national development

Introduction

Child labour is a topical issue of global concern and is one of the unimaginable forms of child abuse and social neglect. However, identification of social and health consequences associated with it is very germane for targeted interventions, and more importantly policy options for sustainable national development in most of the low-income countries including Nigeria. Children are important resources to the nation’s human capital development; however, such pool of human capital can be developed to an optimum level by providing them a safe and conducive environment. Hence, the protection of children from the economic violence of child labour is very critical to every effort towards a sustainable national development. No doubt, children all over the world by tradition gave a helping hand to their respective homes. This practical knowledge enriches and enshrines them. It avails them the opportunity to learn basic skills and to contribute to their family in a very decent way. This is not child labour. Ideally, the concept of a child, embedded in moral and legal practices, is that a child is a person who is in some fundamental way, not developed but

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rather developing (Schapiro, 1999). Sequel to these underdeveloped processes, adult parent or surrogate is therefore needed to act on children’s behalf. They have thus bestowed with some special obligations including the obligation to protect, safeguard, nurture and educate children so that they can have a safer and better childhood and consequently a brighter future that can, in turn, transform the socio-economic development of any nation. Hence, this places a mandate for legal protection in a condition of freedom, dignity, and security on all the custodians of children within child protection system.

In the context of research, it is beyond the shade of doubt that politically, socially and economically child is the need of the future. The child is not only the future of a nation and its aspiration for sustainable national development but also, and mainly, its strength in reserve. The future of a nation is best secured if its children are healthy and active, educated and informed, disciplined and trained, as well as free from social prejudices and above all having a scientific outlook. (Bilal Ahmad Bhat, 2010). With this in mind, it is clear that children are the heart of social development and their wellbeing transform into the sustainable development of a nation (Pagare, 2004). They represent future leaders, workers, and parents. Thus, they are meant to grow up and be nurtured in a healthy family environment, in an ambiance of happiness, harmony, care, and understanding. As such, children should not be maltreated, exposed to danger, neglected, abused, exploited, worked long hours or deprived of their menu of a right to life, survival, development, education, association, and health (UNCRC, 1989, ACRWC, 1999, CRA, 2003 and CRL, 2007).

In contrast, child labour is any work that is capable of disrupting child’s education or detrimental to his/her health, physical, mental and social development (UNCRC, Ibid). Child labour represents a situation whereby children perform domestic tasks in the home of a third party or employer under exploitative conditions (long hours with little or no payments). We recognize the fact that the definition of a child varies according to culture and customs. Therefore, we have adopted WHO definitions as received from Schenk and Williamson (2005). Thus, a child is being considered here as an individual younger than 18 years. By the same token, the definition of child labour was also recognized as being controversial among scholars. Therefore, child labour in the context of this study was operationalised as any type of paid work involved by an individual younger than the age of 18 years as a means of livelihood. Sustainable development as it were, is a development that meets the needs of the present, without compromising the ability of future generations to meet their own need (Barbier, 1987; Anderson, 2002).

However, ILO (2004) estimated that in the year 2000, over 352 million children aged 5-17 were involved in economic activity all over the world. These children are susceptible to exploitation and all forms of abuse. These factors – lack of access to communities, to functional basic education and to appropriate social support – are amongst key enablers of child abuse (e.g. violence against children, trafficking in person and child labour) in Africa (see Wolfe, 1999). In the same vein, a quite number of children in Nigeria are not receiving education and leisure which are very profound for their physical, social and mental development. Indeed, implications of this precarious situation of Nigerian children for sustainable national development cannot be overemphasized both in theory and practice. Sadly, there are over 15 millions staggering child labourers in
Nigeria. One in every five children does not live beyond their fifth birthday (UNICEF, 2006, 2004). In terms of education, the report issued out by the nation’s Ministry of education (Olatunji, 2006; Adeoye, 2007) indicated that 42.1 million Nigerian children eligible for primary education; just 22.3 million were in school. The remaining 19.8 million were out of school. The situation for secondary schools, where most adolescents fall into, was even very worrisome because of 33.9 million of children eligible for secondary education, only 6.4 million were in school. One can assume that it is not because parents are not willing to send their children to school, but because they lack the economic resources to execute a wish for a sustainable better future for their children (Emeka, 2010). Thus, child labour is one of the alarming social phenomenon confronting Nigeria quest for sustainable national development. It is however instructive to note here that, the problem of child labour became very critical in most low income countries including Nigeria in late 70s and early 80s due to the introduction of structural adjustment programmes (SAPs) which marked the watershed of drastic economic melt-down with concomitant galloping inflationary gaps, incessant fall in revenue from oil, and high unemployment rates (Ebigbo, 2003). Consequently, was arching poverty that affected mostly the marginalized group (women and children), hence making them more susceptible to exploitation and all forms of unimaginable abuse and social neglect. Mac John Nwaobiala, of the International programme on the Elimination of child labour in Nigeria (IPEC, 2004) further analysed the gender ratio of this group of working children as 7.8 males and 7.2 females. According to him, six million of this fifteen million are not in school while 2 million are exposed to long hours of work (Nwaobiala, 2004). In addition, ILO/IPEC report (2008) further shed more light on the problem of child labour in Nigeria that though childhood is a critical time for safe and healthy human development. In contrast, child labourers in Nigeria are at a high risk of illness, injury and even death due to a wide variety of machinery, biological, physical, chemical, welfare/hygiene and psychosocial hazards, as well as from long hours of work and poor living conditions. The work hazards and risks that affect adult workers can affect child labourers even more severely. For example, physical strain, especially when combined with repetitive movements, on growing bones and joints can cause stunting, spinal injury and other lifelong deformation and disabilities. Children often also suffer psychological damage from working and living in an environment where they are denigrated, sexually harassed or experience violence and abuse. In addition, child labour has a profound effect on a child’s future, denied the right to a quality education, as adults, they have little chance of obtaining a decent job and escaping the cycle of poverty and exploitation and this will concomitantly affect the quality of future labour, parents and leaders-comprising quest for sustainable national development. These worrisome statistics and conditions gave us insights into the problem of child labourers in Nigeria with several implications for national development. Although, some patterns of child labour like street hawking, can contribute to the economic growth and development in some way, however, the attendant consequences that are attached supersede the economic positive aspect of it. Risks like a motor accident, rape, kidnapping, extortion, sexual molestation, poor academic performance and involvement in other anti-social behaviours are not negligible within the context of both research and appropriate policy for targeted interventions.
Hence, the precarious situation of Nigerian children as highlighted above spur up in us a pertinent question on what could be the magnitude of the social and health consequences of child labour in Nigeria? Sadly, this has not received adequate attention in the extant Nigeria literature. This study thus intends to fill this lacuna. An understanding of the social and health consequences of child labour and relevant policy options must be based on the appropriate empirical study. It is against this backdrop that this study was undertaken. The general objective is to determine the social and health consequence of child labour in Lagos metropolis, south-western Nigeria as well as the policy options that should be pursued vis a vis its implications for sustainable national development particularly as Nigeria attempt to be one of the world largest economies in the year 2030. In specific terms, the objective of the study include: (a) to examine the socio-demographic characteristics of children in the study area; (b) to determine the relationship between children involvement in child labour and experience of sexual abuse; (c) to evaluate the relationship between children involvement in child labour and experience of ill-health status at work.

Hypotheses

H$_0$ There is no significant relationship between child involvement in child labour and exposure to sexual abuse.

H$_0$ There is no significant relationship between child involvement in child labour and experience of ill-health status at work.

Theoretical Underpinning

Poverty Theory of Child Labour

Child labour as a result of poverty is one of the most common theories about the causes behind underage work. A majority of studies in developing countries including Nigeria show that poor families put their children in child labour more often than families in a better economic situation. Increase of the household income is one reason but it is also a safety strategy to even out the risk of losing economic income, for example with the loss of an adult income earner or a failed harvest. According to ILO (2010), child labour commonly may represent around 20 per cent of the household income, and as poor families spend the majority of its income on food, consequently the children’s incomes are crucial. In many households not all income is equally allocated to meet basic needs. Income earned by the mother of the household is more likely to be available for the family than income earned by the father. Children's earnings given to mothers may therefore be more important for the family than the earnings gained by the father. It is common that children do think about such factors, they are fully aware of their work as an important part to support their family. Economic dependence of households on the work contributed by their children varies extremely, ranging from almost none in industrializing countries to nearly total dependence in families with an absent or disabled adult – common in many African countries being desolated by HIV/AIDS. Boyden J, Ling B, and Myers W (1998) indicate that the fundamental importance of child labour as a result of poverty is so widely accepted and well demonstrated that there is no need to question the theory. But, there exist disagreements about to what degree poverty is fundamental to child labour – if poverty was the sole determinant for child labour, the highest rates of child labour would be found in the poorest parts of the world. This is not always the case. The
relationship between child labour and poverty is varied, vague and indirect. If poverty would be the only determinant, the same patterns would be found over the world, but they are not. In rich countries it is often the opposite; children from high-income families are more likely to work. The explanation is that children from wealthier families have more work opportunities and are less exposed to ethnic and racial discrimination. A Brazilian study of economical active urban children compared a more industrialized wealthier area in south with a less industrialized, poorer area in north. The finding was that children in the wealthier south were much more likely to be involved in labour than were the children in the poorer north. The best explanation was that the well-situated environment in south provided more labour opportunities for children. Even if more children might have been looking for work in the northern poor area they could not find it. This is an example of the fact that increased prosperity in an area will not automatically reduce the prevalence of child labour. Children from wealthier families are sometimes more likely get involved in child labour as children of families owning land or small business may work more than children from poor families without any productive assets. It is common both in industrialized and developing countries to find children working in family business generating livelihoods well above the poverty level. In fact, most child labourers work within the home or in a family enterprise. Poverty itself may be an obstacle to work opportunities, for example it can limit the ability to pay for travel to and from the job-site. Most common is to think that poverty is an explanation for the flow of children into the labour market, but poverty can also be an important factor regarding the demand for child labourers. Employers with a bad economic situation often turn to child labour with the wish to keep their cost to a minimum, and poor children come cheap. Poor children have less education, fewer employment options and are less aware of their rights. The globalization of the market puts pressure on the prices and in the search for the lowest prizes child labour seems to be the cheapest option and this precarious situation often expose many low income countries including Nigeria to all sorts of vulnerable conditions such as sexual violence, abuse and neglects.

Health Belief Model of Child labour

The Health Belief Model (HBM) is one of the most widely used conceptual frameworks for understanding health behavior. Developed in the early 1950s, the model has been used with great success for almost half a century to promote greater condom use, seat belt use, medical compliance, and health screening use, to name a few behaviours. The HBM is based on the understanding that a person- child labourer will take a health-related action (i.e., use pain killers) if that person- child labourer:

1. feels that a negative health condition (i.e., ill health status) can be avoided,
2. has a positive expectation that by taking a recommended action, he/she will avoid a negative health condition (i.e., using professional prescribed medication will be effective at preventing ill-health status), and
3. believes that he/she can successfully take a recommended health action (i.e., he/she can use approved medication/pain killer comfortably and with confidence).
The Health Belief Model is a framework for motivating people to take positive health actions that uses the desire to avoid a negative health consequence as the prime motivation. For example, ill health status like body pain is a negative health consequence, and the desire to avoid body pain/headache can be used to encourage childlabourer to shun hazardous labour so as to maintain a healthy lifestyle. It is important to note that avoiding a negative health consequence is a key element of the HBM. The HBM can be an effective framework to use when developing health education strategies. A large research study reviewed 46 studies of HBM-based prevention programs published between 1974 and 1984. The HBM-based programs focused on a variety of health actions (Becker, 1974). Central to this theoretical approach here is predominantly on prevention of childlabourers from ill-health related issues like body pains, headache, STIs/HIV/AIDs just to mention few. To be sure, Weston (2005) noted that any work children do for long hours, can be damaging to their health because the work can be abusive, exploitative or hazardous and it can have an adverse effect on their health status if proper preventive measures are not in place.

Materials and Methods

Data and Methods

Research design

This study examines social consequences of child labour in Shomolu LGA of Lagos Metropolis Nigeria. Thus, a non-experimental research design which consists of cross-sectional survey research method is employed to identify the significant social consequences of child labour in Lagos State, Nigeria. The association of key consequences such as working children exposure to sexual abuse, and experience of ill-health status are important dependent variables tested against the occurrence of child labour to enhance clarity and accuracy about the characteristic of each factor and its relationship with child involvement in child labour as the major independent variable in this study. A structured questionnaire was used for data collection in form of personal interview.

Study Area

This study was conducted in Lagos metropolis of Shomolu LGA, (South-western, Nigeria). Lagos state composed of 27 local government areas (LGAs) during the time of the survey in 2015. The area was purposively selected due to its high level of growing population as urban city coupled with the high concentration of commercial activities in this area that often encourage occurrence of child labour as noted in some of the previous studies conducted in South-western Nigeria (See, Fawole et al.,2003).

Study Population and Sample Size

The study employed a cross-sectional survey research method to generate it primary data based on the nature of the research theme and objectives. The questionnaires used in the survey were administered only to the consenting children between the ages of 6-17 years in the study area. A sample of 400 children was recruited for the study and as such, a total of 389 consenting children, 228 males, and 161 females,
however, participated in the survey. The proportion of the respondents selected was based on multi-stage and simple random sampling and specifically lottery due to the non-existence of sample frame (i.e. the list of all children between the ages of 6-17 years in Lagos State) in the study area as at when the study was conducted.

Sampling Techniques

The sampling techniques used in this survey is four multi-stage random sampling technique-using the simple random sampling (lottery) method to select (400) four hundred (children between ages 6-17 years) respondents. The non-existence of a sampling frame (i.e. the list of all children between the ages of 6-17 years in Lagos State) necessitated the adoption of a multi-stage random selection technique for the survey exercise, and as such to enhance equal representative. The precise study location is Shomolu Local Government Area (LGA) of Lagos State which was purposefully sampled for the study due to limited available financial, material and human resources to cover the entire state. Shomolu Local Government (Lat. 6.540833◦ to 3.387222◦) lies in the Ikeja Division of Lagos State, Nigeria. It has a population of about 403, 559 (NPC, 2006) and has a land area of 11.6km². Hence, it is bordered in the South by Lagos Mainland, in the West by Ikeja and Mushin and in the East by the Lagos Lagoon. There are eight wards in Shomolu Local Government Area. The wards are Ward A (Onipanu), Ward B (Bashua), Ward C (Ijebutedo), Ward D (Orile/Alade), Ward E (Okesuna/Alase), Ward F (Bajulaiye), Ward G (Igbari), and Ward H (Fadeyi/Igbobi). The people of Shomolu Local Government Area are predominantly Yoruba. They are composed of the Eko-Aworis and Ijebu. The local government has its territorial confines settlement like Somolu, Pedro, Bariga, Bajulaye, Morocco, Ilaje, Igbobi-Sabi, Obanikoro, Apelehin, Bashua, Igbari, Akoka, and Abule-Okuta. Large-scale commercial activities in the formal private sector, particularly printing press, are conducted in almost every available space while the arts and crafts of the cottage industries are veritable sources of substantial revenue. In the industrial sub-sector of the area, there are industries which provide employment for the inhabitants. These are part of the reason why this location was considered and selected for this kind of community-based study. The following stages were adopted in order to select the sample for the survey (i.e. the macro approach method).

In Stage one (1): Shomolu Local Government Area of Lagos State has eight (8) political wards out of which four (4) political wards were randomly selected.

Stage two (2): Out of four (4) political wards selected were ten streets each randomly selected using simple random sampling technique specifically (lottery) and making the total number of streets selected forty (40) streets.

Stage three (3): Using the simple random sampling technique, ten houses were selected in each of the forty streets, bringing the total number of houses to 400. In selecting the ten houses, the number of each of the house in each street has been tiny in pieces of paper and ten pieces were randomly picked. The house number that was picked was selected for the study.
Stage four (4): In each of the house selected, the numbers of households were collected and using the simple random method, specifically the lottery method, a household was selected and an eligible respondent was chosen in each of sampled household based on a child within the age (6-17 years) as stated under study population section.

Research Instruments

A structured questionnaire is employed to collect primary data in the survey. A total of 400 copies of the questionnaire were administered to the study population through a method of personal interview. This was highly appropriated since the method avails us the opportunity to fill the questionnaire properly because many of the children may not fill it completely as expected without supervision. However, only 389 out of 400 questionnaires administered were found useful for the analysis. The survey was structured in such a way that adequate information was elicited on research objectives and hypotheses. Question asked bothered on five sections (A-E) the section A consists of respondents Socio-demographic background and their parents, section B focuses on circumstances leading to their involvement in paid work, section C was on social and health consequences of child involvement in child labour and section D bothered on their coping strategies while section E was on their general suggestions for policy options.

Data Collection

The fieldwork of this was carried out between September and October 2015. This quantitative data were collected with the aid of survey method. Ten- (5) male and (5) female interviewers (Social Work Diploma students) who have taken courses on research methodology were recruited from Department of Social Work, Faculty of Social Sciences, University of Lagos for the administration of the questionnaires in the study locations. The reason for recruiting young students was because since the study focuses on children most of the respondents will feel free to discuss their involvement in economic activities with young individuals. These interviewers were trained for two days and their skills were pre-tested before the commencement of the major survey. Two supervisors, namely the principal author (Graduate student) and the correspondent author (Senior Lecturer) supervised and monitored all the activities of the interviewers on the field. At the end of each day of the survey, the principal author who always on the field usually review and edit the completed and returned questionnaires in order to check for internal consistency, completeness, and other validity issues on each of the returned questionnaires.

Data Analysis

Data generated in the study are quantitative in nature; hence data analyses require descriptive and inferential analytical techniques. In order to achieve these, various analytical methods were employed to analysed and explain the generated data. The univariate analysis involved the use of the table, frequency distributions and percentages. The bivariate analysis in the same vein involved the use of Chi-Square statistical tool. These methods were used to test the hypotheses formulated on social consequences of child labour in Lagos State. The data collected were sorted and analysed with the aid of SPSS version 2.0.
Ethical Consideration (Informed CONSENT).

Written and oral informed consent was obtained from the respective parents/guardians, and employers on behalf of the minor and confidentiality of the information were received. The responses which formed our data eventually were analyzed and interpreted in aggregate without any link to a specific respondent. Besides, the information was kept confidential and was used purposely for this research work and its publication.

Limitation of the study

It was difficult to get appropriate answers from the children since most of them were minor and could not respond to the questions adequately. In addition, fear and anxiety forced them to remain silent, which led to misleading answers in some occasions. Much has to be elicited, hence, through observation. The researchers always endeavoured to avoid the notion which may miss-represent the findings. Some parents and guardians hid the information that the child is not an earning member but tried to pose that they send the child to work to overcome idleness and from being a victim of anti-social vices. It is instructive to note here that employers of child labourers were very hesitant of the interview as they considered the researchers as a government official deputed for collecting information about the abuse of child labour in handicraft. In fact, many declined their informed consent on behalf of the child. Majority of the children who engaged in child labour were from poor backgrounds.

Results, Findings, and Discussions

Table 1: Socio-Demographic Status and Family Background of the Respondents N=400

<table>
<thead>
<tr>
<th>Responses</th>
<th>Frequency</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age Group</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than 6years</td>
<td>7</td>
<td>1.8</td>
</tr>
<tr>
<td>7-11 years</td>
<td>189</td>
<td>48.6</td>
</tr>
<tr>
<td>12-17 years</td>
<td>193</td>
<td>49.6</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>389</td>
<td>100.0</td>
</tr>
<tr>
<td><strong>Sex of Respondent</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>228</td>
<td>58.6</td>
</tr>
<tr>
<td>Female</td>
<td>161</td>
<td>41.4</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>389</td>
<td>100.0</td>
</tr>
<tr>
<td><strong>Ethnicity Affiliation</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yoruba</td>
<td>281</td>
<td>66.6</td>
</tr>
<tr>
<td>Igbo</td>
<td>78</td>
<td>31.1</td>
</tr>
<tr>
<td>Others</td>
<td>23</td>
<td>1.3</td>
</tr>
<tr>
<td>Hausa</td>
<td>7</td>
<td>1.0</td>
</tr>
</tbody>
</table>
Four hundred questionnaires were distributed but 389 were collected and analysed given a response rate of 97%. Of the 389 respondents, a majority (49.6%) were in the secondary school age range of 12-17 years, while (48.6%) were in the primary school age range of 7-11 years. Sex distribution also shows that majority were males (58.6%), (Table 1). More than sixty-six percent of the respondents were Yoruba, while other ethnic nationalities constituted the remaining 33.4%. More than sixty-two percent of respondents were from monogamous family and nuclear family background (i.e. couples living together with their children). The majority of the respondents’ 44.7% family earned less than #50,000 as income in a month while 6.7% respondents are from a family that earned #201,000 and above as income per month. The majority of the respondents were from low-income backgrounds.

Testing of Hypotheses

Table 2: Chi-Square Analysis Cross tabulation showing the relationship between Child Labour and experience of Sexual Abuse

<table>
<thead>
<tr>
<th>Do you involve in paid work as a means of livelihood?</th>
<th>Have you ever been sexually abused by customer/employer before?</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td></td>
<td>160 (100.0%)</td>
</tr>
<tr>
<td>No</td>
<td></td>
<td>78 (100.0%)</td>
</tr>
</tbody>
</table>
The result from the analysis revealed that the 122(51.3%) children interviewed in the study significantly reported that involvement in paid work as a means of livelihood have significantly, and consequently increase their vulnerability to experience of sexual abuse among working children compared to 116(48.7%) who said child labour has no implication for vulnerability to experience of sexual abuse among working children in the study area.

This is corroborated by the findings of Omokhodion et al (2003) study for WHO which indicated that there is a relationship between child involvement in labour and sexual harassment. Another submission from Onuzulike (2007) study supported this finding as indicated that child involvement in child labour has a correlation with sexual harassment which can manifest into unwanted pregnancies. Hence, the implications for this on our quest for sustainable national development is the fact that child labour has social implication - sexual violence against children can consequently lead to unwanted pregnancy among teenagers which can, therefore, interrupt their education and posits severe implications on their future ambition to become socioeconomically productive in their society especially through quality formal educational attainment for them to be able to break the vicious cycle of poverty in their family.

### Table 3: Chi-Square Analysis Cross tabulation showing the relationship between child labour and exposure to ill health status at work place

<table>
<thead>
<tr>
<th>Do you involve in paid work as a means of livelihood?</th>
<th>Have you ever experienced ill health at work-place before?</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Yes</td>
<td>56 (56.0%)</td>
<td>44 (44.0%)</td>
</tr>
<tr>
<td>No</td>
<td>8 (32.0%)</td>
<td>17 (68.0%)</td>
</tr>
<tr>
<td>Total</td>
<td>64 (87.4%)</td>
<td>61 (49.2%)</td>
</tr>
</tbody>
</table>

χ² = 4.611, df = 1, sig (p-value) = 0.032


From the table 3, the null hypothesis (H₀) is thus rejected.

The result from the analysis revealed that the majority 64(87.4%) working children interviewed in the study significantly reported that involvement in paid work as a means of livelihood would significantly increase
the experience of children to ill-health status compared to 61(49.2%) who said child labour has no significant relationship with an experience of ill-health status among working children in the study area.

The result of this study is in consonance with several other studies that corroborated this assertion that it is logical to assume that there is a significant relationship between child involvements in paid work and an experience of ill health status (Ayaya & Esamai 2001; Nuwayhid et al. 2005; Omokhodion et al (2003). In the same vein, Weston (2005) noted that any work children do for long hours, can be damaging to their health because the work can be abusive, exploitative or hazardous and it can have an adverse effect on their health status. The alarming and grim spread of HIV/AIDS infections among young population in Nigeria as recently reported (See, UNAIDS, 2016) can be traceable to a quantum of over 15 million Nigerian children who have been trapped in the quagmire of child labour (UNICEF, 2007). Thus, every effort to curb the spread of HIV/AIDS may not be completed especially among young population in Nigeria without an effective safeguarding and child protection policy in place to safeguard and protect children from all forms of violence against children in Nigeria, including child labour.

Implication of the findings for Sustainable National Development

The study has established that child labour has social consequences-exposure to sexual violence which has implication for a sustainable national development. It is instructive to note here therefore that exposing children to the economic violence of child labour have grave detrimental effects on their physical, mental and social development as documented in this study. Onuzulike (2007) further corroborated this finding that social consequences of child labour include but not limited to sexual violence, unwanted pregnancies, prostitution, smoking, robbery, truancy and poor academic performance among others. Hence, one can logically assume that child labour does not only have severe social consequences but also have implications for sustainable national development of every nation such that the health of many children in Nigeria is subjected to present and future risk because of the pressure to meet the present socioeconomic needs by involving in paid work for long hours and mostly in hazardous conditions in order to complement family meager income (Emeka, 2010). Many parents from socio-economic difficulty circumstances in Nigeria have traded the future of their children for immediate economic gain by substituting child’s education for child hawking-child labour in order to meet up with the current hardship economic reality in the country. However, this precarious situation of many children poses a severe implication for our quest for national development because it often denied the children right to a quality education, as adults they have little chance of obtaining a decent job and escaping the vicious cycle of poverty, and exploitation while this will concomitantly affect the quality of future labour, parents, and leaders-comprising our quest for sustainable national development in the future. Since these children are the reserve future labour forces, parents, and leaders that would be in charge of the socio-economic and political transformation and progress of our nation.

In the same vein, this study has equally established that the works which children engaged in this study are usually repetitious and highly detrimental to their safety and health status. In addition, the adverse effects
from such work might impede child growth and invariably compromises every quest for a sustainable national development. Thus, it is logical to assume that children in this study usually have their health status been comprised as documented in this study. The implication of this finding on the quest for a sustainable national development cannot be overemphasized because this will invariably reduce the life expectancy and increase child mortality and morbidity rate in the country and in the long run, undermine the roles of our future human resources competency, and reduce the gross national productivity rate of the country. Hence, this will always compromise every quest for national development in Nigeria because these children are the nation’s agents of socio-economic and political development in reserve.

**Conclusion**

This paper has established that the social and health consequences of child labour as documented in this study have implications for sustainable national development because engaging these children in child labour can irrevocably damaged their personalities and have their general social well being compromised. Meanwhile, they represent the nation’s agent for socioeconomic development capable of becoming the future workers, parents, and leaders in reserve. Since these children are the future of the Nigerian society, evidently sustainable development goal of the larger society is at present being compromised with the empirical findings of this present study which indicated that there is an association between child labour and experience of sexual abuse and exposure to ill-health status. However, for Nigeria to meet up in her quest for Sustainable Development Goals (SDGs), and to become one of the fastest growing economies in the year 2030, certain recommendations for policy options were generated below from this study.

**Recommendations: policy implications for sustainable national development.**

- We, however, recommended that CBOs, NGOs and other civil society should come up with synchronised initiatives and a network of social welfare support programmes to cushion the detrimental effects of child labour especially for children from a poor socio-economic background who may be combining schooling with working or completely out of school as a result of poverty. This could be done in collaboration with the three tiers of government to design a sustainable re-orientation and rehabilitation programme for children who have been or most likely been trapped with the quagmires of child labour in the country.

- Also, an appropriate implementation of child protection policy and safeguarding system that will not only embrace but also effectively enhance a child right-base approach to protect the right of the children cum providing social welfare programmes as part of sustainable development goals (SDGs) which must be strictly implemented beyond just being a toothless paper tiger as usual-to
avoid chasing shadow in an abstract environment which has always been the case in the Nigeria quest for sustainable national development. This can be done through enlightening the parents, surrogates, and guardians on the detrimental effects of child labour on child’s health and social development.

- Finally, there is still need for more functional international intervention strategies and synergies in the country through international programmes for the elimination of child labour (IPEC) in Nigeria in order to fix up the missing link in her clarion call for sustainable national development, and quest to become one of the leading economies in the year 2030

References


Convention on the rights of the child, United Nations. 1989; Article 32.11.


Could My Home be Responsible for this? Adolescents’ Reports on Family Situations and Delinquency in Iwo, Osun State, Nigeria

A.O Fawole¹, M.S. Yusuf², and D.O. Obor³

Abstract: Juvenile delinquency has been a phenomenon sweeping across the entire globe. Researchers have attempted to explain causes of delinquent behaviours, relating them to factors such as peer pressure, biological or genetic traits, as well as family and school environment. The present study however attempted to examine the relationship between family situations and juvenile delinquency as reported by selected adolescents of secondary schools in Iwo, Osun State, Nigeria. The research was carried out using focus group discussions and analyzed thematically. Data from the group discussions revealed that authoritarian and permissive parenting styles did have influence on the adolescent’s propensity to engage in delinquent behaviours. Also identified as factors were family types such as divorced or single parenthood families. Participants also explained how much better family situations could have averted their engaging in such delinquent behaviours.

Keywords: Broken home, delinquency, Iwo, family situations, parenting style

Introduction

The inception of juvenile delinquency in Nigeria dates back to the 1920s when youth crimes such as pick pocketing, shop lifting and truancy became predominant issues. This ugly trend led to the establishment of judicial administrative processes by the then colonial rulers to deal with delinquents (Fourchard, 2006).

Interestingly, the problem of juvenile delinquency is not peculiar to Nigeria alone. In Kenya, South Africa and Liberia, the rate of juvenile activity such as “cliquing” has increased about tenfold since the 1990s. Juvenile delinquency was found to be closely related to marital instability and modes of discipline. Researchers have suggested that there exists a significant relationship between family functions and juvenile delinquency in these areas (Fourchard, 2006).

Researchers believe that juvenile delinquency has its root in the kind of home in which a child is brought up (Okorodudu, 2010; Igbo, 2007). It has also been observed that marital instability is on the increase in Nigeria and that increasing acts of crime among the youths might be attributed to this (Muhammed et al, 2009). Furthermore, research has linked family dysfunction with future criminal activities, in part because parents monitor and provide nurturance to children. It is thought that the loosening of bonds between family members may result in acts of delinquency by the children. A study by Demuth and Brown (2004)

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demonstrates that broken homes are not only associated with juvenile delinquency, but also that family arrangements are not just a broken home issue. Overall, they inferred that the lack of supervision and the absence of close relations between the child and his/her parents are causative factors of delinquency.

In addition, the researchers stated that family situations other than intactness may also be important factors that influence delinquent behavior and thus warrant further study. Changes in family arrangements emerge for a wealth of reasons including separations, divorces, sudden death of a parent, unemployment, and effects of substance abuse (Demuth & Brown, 2004).

The family plays a significant role in the socialization of children. Therefore, much attention is focused on the family situations to try to discover why young people become delinquents. Various family factors have been associated with delinquency, but the most important is the quality of relationship between parents and children. In essence, there is less delinquency among those youths whose parents value, love and accept them (Barnes and Farrell, 1992).

The balance of this research reviews the empirical literature regarding the connection between family situations (i.e., the organizational form of the family; married, divorced, and the stability of the family) and juvenile delinquency. Lack of parental monitoring contributes not only directly to children’s anti-social behaviors, but also indirectly as it contributes to exposing them to associate with deviant peers, which is predictive of higher levels of deviant acts (Okorodudu, 2010).

The current study investigates how adolescents in Iwo, Osun State, Nigeria reported the extent to which family situations, particularly incomplete families, had predisposed them to delinquency.

**Review of Prior Literature**

Robert (2002) stated that children exposed to risk factors such as behavioral problems and family dysfunction, follow a well described and documented path beginning with behavioral manifestations and reactions such as defiance of adults, lack of school readiness and aggression towards peers. This leads to negative short term outcomes including truancy, peer and teacher rejection, low academic achievements, and early involvement in drugs and alcohol. These factors lead to school failure and eventual dropout, leading to negative and destructive attitudes such as delinquency, adult criminality and violence.

**Family Situations**

Stattin and Kerr (2000) were among the first to perform a rigorous analysis of this question. Using both child and parent reports, they concluded that, contrary to popular thinking, parents’ direct control over adolescent behaviour is not as important as adolescents’ voluntary disclosure of information about their lives. They suggest that parent–child relationships that facilitate communication are what prevent deviant teen behaviour.
Changes in family arrangements emerge for a wealth of reasons including separations, divorces, sudden death of a parent, unemployment, and sequel of substance abuse (Demuth and Brown, 2004). Divorce is fast becoming a commonality in the Nigerian society. When parents do not get along together and possibly later divorce, the consequence can cause direct stress to a child (Amato and Cheadle 2008). Children may blame themselves for the conflict, leading to feelings of guilt and low self-esteem. The conflict between parents may also spill over and decrease the quality of parenting, weakening the bonds between the child and the parents. With these bonds weakened, self-control decreases, causing the adolescent to act out and engage in deviant behaviors. Jekayinfa (2007) has asserted that children from divorced homes are more likely to be maladjusted in the society. She suggested that when a marriage collapses, men and women alike often experience a diminished capacity to parent. Thornberry et al., (1999) stated that for family disruption and delinquency, the composition of families is one aspect of family life that is consistently associated with delinquency. Children who live in homes with only one parent or in which marital relationships have been disrupted by divorce or separation are more likely to display a range of behavioral problems including delinquency, than children who are from two parent families. Further they stated that for family disruption and delinquency, the composition of families is one aspect of family life that is consistently associated with delinquency. Parental monitoring has been consistently found to moderate delinquent peer influences on children’s subsequent delinquent behaviors by buffering the effects (Metzler, et al., 1994; Pettit et al., (1999). Azoro (2010) has asserted that children whose parents are divorced have a higher risk of indulging in delinquent acts than children from stable families. As a result of that, children from divorced families suffer from what he sees as attachment disorder. Siegel and Welsh (2008); Jekayinfa (2007); Alfrey, (2010) have argued that divorce may influence children’s misbehavior through its effects on parental misbehavior. In agreement with the above statement, Uwaoma and Udeagha (2007) have also stated that children who are from divorced families have been found to have multiple behavioral problems which impel them to engage in delinquent behavior. They further explained that this occurs because the warmth, direction, love and protection which the parents would have provided for them are lost and sought in anti-social behaviors such as drug abuse theft, and prostitution.

Another survey into the influence of family structure on juvenile delinquency by Murry, William and Salekin (2006) using a sample size of 442 juveniles in a borstal institution found out that 53% of the sample came from one parent households. The findings of the research indicate that proportionately, more juvenile offenders come from family arrangements other than the two-parent family home. However, the researchers explained that family arrangements combined with other factors such as environmental factors, situational factors, and functional factors may provide more insight into juvenile delinquency.

Demuth & Brown (2004) have posited that single parent families and, in particular, mother-only families produce more delinquent children than two parent families. The assumption is that the presence of a father figure in the stable two parents’ family helps to stabilize the male children who are more at risk of engaging in delinquency (Okeke, 2005; Schroeder, Osgood and Oghia, 2010). Two-parent families provide increased
supervision and monitoring of children and property, while single parenthood increases the likelihood of
delinquency and stigmatization simply by the fact that there is one less person to supervise adolescent’s
behavior (Kimani, 2010). Furthermore, Sweeney (2002) suggests that single parent families, especially,
single mothers, expect less of their children, spend less time monitoring them and use less effective
techniques to discipline them. In addition, it is harder for a sole parent to find time to monitor, supervise,
and discipline children because they find it hard to “prioritize their children’s needs above other live
demands” (Mack, Michael, Richard and Maria, 2007:53). Overall, this means that children in single parent
families have greater opportunities and motivation to participate in delinquent acts than those living in a
two-parent family (Fry, 2010). An observation by Alfrey (2010) was that the very absence of a two-parent
family makes gang membership more appealing. Hence, children residing in single-parent families are at a
greater risk of joining gangs than children from two-parent families. In support, Reed and Decker (2002)
observed that the gang can serve as a surrogate extended family for adolescents who do not see their own
families as meeting their needs for belonging, nurturance and acceptance. To Alfrey (2010); Anderson,
(2002), single parent families often are financially vulnerable as compared to two-parent families and such
economic circumstances frequently draw these families into more affordable but socially disorganized
neighborhoods where children are prone to learning delinquent behaviors.

Methods

A total of forty male respondents from three different community secondary schools in Iwo participated in
this study. The participants were final year students (Senior Secondary 3 class). To determine adolescents
that had engaged in delinquent behaviours, the records of students who had reported cases of delinquency
were obtained, with permission, from the head of each school. The researcher ensured the students
understood the purpose and method of the research and after their consent was sought, with assurances
of anonymity, fourteen students were selected from each school to participate in a focus group discussion.
Groups A and C each had thirteen participants while group B had fourteen participants. Each group
discussion ran for approximately seventy (70) minutes. Participants were entertained with snacks and
drinks and also presented with two note books each for their respective class lessons. The discussions
centered on themes that included the most perpetuated delinquent behavior; the styles of parenting they
had been exposed to, relationships of the adolescents with their parents; and their perception of family
situations influence on their delinquent behaviour.

Results

Data from the focus group discussions were transcribed and went through several phases of analysis. A
preliminary analysis was conducted in order to get a general sense of the data and reflect on its meaning.
Next, a more detailed analysis was performed and data was divided into segments or units that reflected
specific thoughts, attitudes, and experiences of participants. At the conclusion of this process of analysis a
list of topics was generated. Data from all focus groups was again analyzed so it could be organized into
categories. These categories were analyzed to determine the interconnectedness of issues and conditions
that may have given rise to the categories. Data from each group were analyzed for major themes, and data from each participant group were also analyzed separately to determine trends unique to each group. Additionally, there were high levels of agreement about these issues and significant consistency in how the issues were talked about among groups. In instances where an issue was addressed by all groups but talked about differently by different groups, these differences in talk are identified and explained.

<table>
<thead>
<tr>
<th>Table 1: Demographic Characteristics of Male Adolescents (N = 40)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Count (%)</strong></td>
</tr>
<tr>
<td><strong>Age</strong></td>
</tr>
<tr>
<td>15 years</td>
</tr>
<tr>
<td>16 years</td>
</tr>
<tr>
<td>17 years</td>
</tr>
<tr>
<td>Above 17 years</td>
</tr>
<tr>
<td><strong>Place of residence</strong></td>
</tr>
<tr>
<td>Both parents married and living together</td>
</tr>
<tr>
<td>Parents separated</td>
</tr>
<tr>
<td>Parents divorced never remarried</td>
</tr>
<tr>
<td>Parents divorced but remarried</td>
</tr>
<tr>
<td>Single never-married parent</td>
</tr>
<tr>
<td><strong>Number of siblings</strong></td>
</tr>
<tr>
<td>0 – 2</td>
</tr>
<tr>
<td>3 – 5</td>
</tr>
<tr>
<td>6 – 8</td>
</tr>
<tr>
<td>Above 8</td>
</tr>
<tr>
<td><strong>Parent-adolescent relationship</strong></td>
</tr>
<tr>
<td>Very intimate</td>
</tr>
<tr>
<td>Somewhat intimate</td>
</tr>
</tbody>
</table>
Demographic characteristics of the respondents are shown in Table 1. The mean age was 16 years, with 10% of the adolescents being older than 17 years of age. A total 52.5% were from homes that had a relatively average size, with number of siblings ranging from 3 to 5. A rather large number of the adolescents (47.5%), as against a mere 12.5% (who had intimate relationship with parents), admitted to having a rather strained relationship with their parents. According to them, they could not discuss personal issues at home, as their parents were not open to such discussions and so they would rather discuss with and confide in friends.

<table>
<thead>
<tr>
<th></th>
<th>Count (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not so intimate</td>
<td>30</td>
</tr>
<tr>
<td>Not intimate at all</td>
<td>47.5</td>
</tr>
</tbody>
</table>

Table 2 shows the distribution of most commonly perpetuated delinquent behaviour over a period of 4 weeks prior to the research. Approximately 20% of the sample had stolen one item or the other during the preceding 4 weeks, and this was the most highly perpetuated delinquent behaviour. More adolescents reported engaging in truancy more than destruction of public property (17.5% vs. 5%), bullying and fighting both were reported having the same occurrence (12.5%) Of the adolescents who reported delinquent behaviours in the 4 weeks prior to the study, only 7.5% reported that they had engaged in sex-related
behaviours such as molestation, intimidation and actual intercourse. A total 10% did report perpetuating other offences ranging from being rude to teachers, abuse of substances such as indian hemp and alcohol, to disorderliness in dressing.

**Delinquent behaviours**

Focus group participants defined delinquency generally and referred to different types of delinquency, which include truancy, fighting, stealing and sex-related offences among other. For instance, when asked what forms of sex-related offences entail, participants in each of the groups provided specific examples such as “molesting a female student in the junior class”, “pulling her clothes roughly”, “giving catcalls” and “making indecent remarks about girls”. Among the adolescents, stealing was most frequently reported. For example, one participant said,

“I stole items such as textbooks to pens continuously over a period of nine days before I was caught …”

He stated that he would take the items home and try to “sell” to students from other schools. He especially went for fanciful pens, or pens that had some rare designs. Another form of stealing, described by some other participants, involved stealing pocket money of students from their bags, lockers or even from their pockets.

**Parenting styles**

Participants in all of the groups made reference to some style of parenting which they had been exposed to at home. Several adolescents described occasions when their parents were overly strict, “taking no nonsense ...” indicating authoritarian parenting style. In one such example, an adolescent told of a time he got home just 2 minutes after the curfew he was given and his father gave him eight strokes of the cane, each stroke representing every fifteen minutes for which he was late. Another adolescent simply responded to afore mentioned:

“You are even lucky. I leave school 4:40pm every day. If I get home a minute after 5pm, my dad locks me out of the house till 7pm!”

While these participants painfully acknowledged the experiences with their parents, one looked at them in wonder and said:

“With me, my parents don’t even know when I get home, neither do they bother to ask me. I get to spend time gisting with my friends ...” . . .

**Relationship with parents**

Not being able to discuss personal issues, afraid of expressing feelings, preferring to be alone in the room when in some “low moods” were mentioned by focus group participants as forms of “non-intimate relationships” with parents. One participant said in outlining the relationship with his parents, “... there are
times I have asked myself whether my parents were actually my real biological parents …” One participant noted, “I also have similar feelings…”

Another participant however said:

“When you try to tell my dad something that happened in school, he always said he was busy and should talk to mum instead…”

Another participant explained:

“I never knew my dad. He died before I was born. And so, coupled with taking care of the family, and going to work, my mother wasn’t always around and our relationship with my mother is therefore not good at all…”

Perception of family situation as factor responsible for delinquency

The adolescents also reported several reasons they considered were responsible for their delinquent behaviours. Interestingly, not all attributed their misbehavior to the fault of “problems” at home. For example, one participant described how he constantly wanted his parents to know and understand what he was going through as a developing adolescent but that the more his parents talked to him in condescending tones, the more he drifted to friends, whose influence eventually got him in trouble. Other participants told of how the “fear” of their father made them “to be more secretive in all” they did, particularly at home.

One explained:

“My dad is not the sort of person you talk to… he is a no-nonsense man. When I get in trouble, he beats me all the time, not even wanting to hear my own side of the story. To him, I am always the one at fault and I can’t seem to please him. So, what’s the point in trying to be good when you are already seen as bad even before you do the bad thing?”

Another had explained:

“My parents seem not to care so much, so I can get home after it is dark. We don’t talk at home.”

But one participant stated:

“My parents give me a lot of attention and they do monitor me. But at times, I just want to know how the other boys feel … how they do it … so, getting in trouble at times makes you feel like you are a ‘big boy’…”

One adolescent puts it clearly:

“My parents are together. I can say that what influenced my dabbling into deviant behaviors are my friends in the area where we live. My friends smoke hemp and drink alcohol.”
Another participant explained:

“I live in a family that is broken due to the death of my father. My mother was unable to successfully cater to her 6 children, go to work and take care of the home all at once. I therefore had all the time to associate with peer groups and this encouraged my involvement in juvenile delinquent acts.”

Participants in the focus groups were asked how they had been feeling after realizing their mistakes. One of them said:

“I think that due to the counselling I received from the counselor here I have come to realize that I should be a good child so that my parents can be proud of me.”

Another expressed his view:

“It’s not because of anything the counselor has told me that can make me change. I believe that only if someone is ready to change deep down in his mind, then the person will change…”

Discussion

This study aimed to examine the influence of family situations on adolescents’ delinquent behaviors as reported by selected adolescents from secondary schools in Iwo, Osun State, Nigeria. Previous research (Fourchard, 2006; Robert, 2002) had found certain risk factors such as dysfunctional families could contribute to a child’s propensity to engage in delinquent behaviours. The present study discovered that when there is a persistent strain in the relationship between parents and adolescents, the likelihood of such adolescents to engage in delinquent behaviors increases. Participants who reported low or no level of intimacy with their parents, who were not able to approach their parents on matters they considered personal or sensitive engaged the more in delinquent behaviours. These participants did agree that perhaps if they had experienced some softness or intimacy or some high degree of affection with their parents or of their parents had shown interest in their personal developing lives, they probably would not have thought of engaging in delinquent behaviours. A number of them attributed their closeness with their friends due to the strained relationship they had with their parents as responsible for their having been involved in some form of delinquent behaviour of the other. This has also been reported in the past works of researchers (Hoge et al., 1994); Decker; 2002). Separation and divorce measured in this study also recorded level of significance with delinquent behaviours. A family where only one parent is saddled with the sole responsibility of bringing up children finds the task rather difficult, most especially where such a person still has to struggle with means of livelihood. Monitoring and supervision of children becomes a horrendous task. At times, the parent exhibits transfer of aggression towards the children. From the study, participants from single (never married) parent homes also admitted to being involved in delinquent behaviours. Literature had found the relationship between divorced homes and delinquent behaviours (Uwaoma and Udeagha, 2007; Wardle, 2007; Siegel and Welsh, 2008). The findings also suggested that the parenting styles which participants were exposed to varied. Each style of parenting also affected their propensity to engage in delinquent behaviours. Where parents were overly controlling, more of the adolescents
perpetuated delinquent behaviours. Also when parents were permissive, such traits predisposed the adolescent to misbehaviours. These findings were evident in the studies of Stattin and Kerr, 2000; Cohen et al., 1997; Chambers, Power, Loucks, and Swanson, 2001).

Limitations of the study

This study provides an important comprehensive insight on the relationship between family situations and delinquent behaviours in Iwo, Nigeria; and has a potential to contribute to the limited research literature in Nigeria, by identifying some of the factors predisposing adolescents to delinquency. However, there are some important limitations to consider when interpreting findings of this study. Firstly, the study had a relatively small sample size (N = 40), spread across a relatively wide geographic area in Nigeria. Caution must therefore be exercised when generalizing the findings to all adolescents. Secondly, since the research was based on self-reporting, it is likely that most of the participants provided a subjective perception when responding to the questions during the focus group discussions. Thirdly, only male adolescents and from a particular class level were involved in this research. This does not mean to say females do not engage in delinquent behaviours. It also does not mean that delinquent behaviours are not only limited to those within the class of students involved (only those in their final year).

Recommendations

In future, more studies on family situations and delinquency need to be conducted within Nigeria. Findings from such research can be compared to similar international studies. More family intervention programmes can be adopted in order to help parents and adolescents identify and cope with factors within the learning environment of school, home and peers which could affect their family relationships. Furthermore, more in-depth qualitative studies are required in order to explore the relationships between family situations and delinquent behaviours in Nigeria.

References


Introduction

Food deficit is the most dominant point of discussion in any debate about the global economic growth since the Millennium Development Decade (Maxwell, 2006; Irohibe & Agwu, 2014; Yenesew, 2015). Wilhemina (2008) postulates that efforts of varying magnitudes have been exerted to discover sustainable methods of guaranteeing that people have access to the least possible amounts of food critical to survive a healthy and active lives. This vision culminated into a number of conferences, such as the African Union Maputo Declaration of 2003, that emphasized on the increase of national spending on food to at least 12% of the state budget by 2015 (Adenyi & Ojo, 2013; Abur, 2014). Adugna & Fikadu (2016) argue that regardless of this intent, food deficit remains an obstinate challenge in the Sub-Saharan Africa region.
Makoti & Waswa (2015) posit that the number of malnourished and hungry individuals in the 2000s rose to 140 million and exceeded 185 million in 2017. In explaining continued increase in food deficit in Africa, Birara et al. (2015) argue that policies and initiatives were futile in addressing the fundamental coping threat concerns of insufficient diet, starvation and poverty. Inappropriate policies and interventions have opened up markets to the dumping of farming produce (Adenyi & Ojo, 2013; Asmelash, 2014; Cheema & Abbas, 2016), privatized communal and public natural resources (Maxwell, 2006; Adugna & Fikadu, 2016) and concentrated assets among the rich (Cheema & Abbas, 2016). Babatunde et al. (2007) corroborate this assertion by positing that adopted coping strategies are ineffective during manifestation of large covariate challenges. Anselm & Amusa (2010) and Andres & Lebailly (2015) argue that without urgent need to identify the factors inhibiting the adoption of viable coping mechanisms, developing economies will continue to import food from developed nations.

Sub-Saharan Africa has the greatest number of underfed people world-wide (Maxwell, 2006; Tshediso, 2013; Altman et al., 2009). The region harvests insufficient food per individual compared to the amount of food harvested a decades ago (Mulugeta, 2002; Bedeke, 2012; Muche et al., 2014). Yenesew (2015) approximates that two in every five kids below the age of three years are underfed and about 38% are malnourished. These statistics reflect the dire food deficit situation within the African continent due to the failure of preferred coping strategies. There is need to understand the challenges affecting the adoption of sustainable coping strategies, in order to address household food deficit.

The determinants of household food deficit in the region are numerous, diverse and composite. The main aspects that contribute to household failure to adopt sustainable coping options include environmental decay (Omonona et al., 2007; Ellis, 2009; Kuwenyi et al. 2014), climatic hazards (Maxwell, 2006; Anwar, 2012; Abur, 2014), population growth surpassing farming output (Makoti & Waswa, 2015), uneven macro-economic atmosphere (Isaboke, 2006; Makoti & Waswa, 2015), inconsistent government policies (Muche et al., 2014) and misdirected food security policies (Campbell et al., 1991). Lemma & Wondimagegn, 2014 and Mengistu & Haji (2015) also argue that food security policies and programs are usually superimposed on the poor farmers without their approval. Yet there is consensus that successful programs and projects are usually achieved though integrated and participatory approaches (Maxwell, 2000; 2006). Furthermore, inadequate access to infrastructure (Altman et al., 2009), shortage of food storage amenities (Isaboke, 2006) and low agricultural production (Babatunde et al., 2007) are some of the causes of food deficit. Thus, this current study examined the dynamics hindering the adoption of viable coping mechanisms in order to address food deficit.

Environment, political and socio-economic constraints are the major drivers of food insecurity (Makoti & Waswa, 2015). Rural areas in Zimbabwe are characterized by poverty, persistent drought, rising population growth ratio and ecological decay (ZimVAC, 2016). Nevertheless, a number of studies in the area give more importance to the urban centres. Limited studies hide the major factors inhibiting the adoption of sustainable coping strategies in rural areas. The undertaking of this study at the rural household level is
important because the results give insights to stakeholders concerning the challenges affecting the livelihoods of the rural people.

About 80% of Chipinge’s environment is semi-arid (ZimVAC, 2017a), with restricted and unreliable rainfall. ZimVAC (2017a) notes that food security is inevitable due to predictable high herd mortality and harvest failure. ZimVAC (2017b) notes that the land assets such as the vegetation and soils are extremely degraded. This is due to the interaction between ecological and anthropological aspects such as pressure on available natural resources (Mango et al., 2014), climate (Dube, 2016), deforestation and the subsequent over-utilization of the land resources (Nyikahadzoi et al., 2012). The study area is more susceptible to food deficit because the economy heavily depends on the farming sector, where environmental hazards are the major determinants of farming productivity.

Despite increasing awareness of the failure of preferred coping strategies, existing literature have focused on the factors deterring farming production rather than those affecting coping strategies. Mombeshora et al. (1995) point out that analytical studies that examine factors that inhibit adoption of viable options are at best scanty. The analysis of challenges constraining the success of preferred coping strategies has received limited focus notwithstanding its growing importance for the vulnerable communities. Thus, this study sought to explore the challenges affecting adoption of sustainable coping strategies in Chipinge district in order to identify interventions that assist in addressing the limitations or alleviate the adverse impact of household food deficit.

**Material and Methods**

Chipinge rural district is located in the south western part of Manicaland province in Zimbabwe and it covers an area of 36,459 square kilometers. The climate is dry and hot for the greater part of the year with an estimated annual average temperature of 25°C. The western part of Chipinge is normally desiccated, particularly the low lying areas of Chipangayi, Chibuwe and the Sabi valley. These areas usually receive very low rainfalls which range between 400mm and 600mm per year. The western part of the district experiences recurrent droughts which regularly result in food deficit and loss of livestock. The rainy season is experienced between November and March (ZimVAC, 2018). In most parts of the study area, soils are sandy, with very low fertility and are subjected to erosion. According to ZimVAC (2018), the population density in Chipinge rural is 32 people per square kilometer. This makes the study area one of the least inhabited areas in the district. Both qualitative and quantitative data were collected in 2018. A sample of 120 households and 10 government and non-governmental agencies was obtained using simple random sampling and purposive sampling respectively. Structured questionnaire and focus group discussions were the major data collection methods used to gather both quantitative and qualitative data.

The study employed both descriptive analysis and Principal Component Analysis (PCA) to analyse data. PCA was used to establish the factors inhibiting the adoption of sustainable coping strategies in the study area. PCA is a method commonly used to extract data from a set of variables. Using PCA, data was reduced
by combining a big number of indicators into limited comparable groups. Each group defined the core aspects of the contributing factors forming the sets. An eigenvalue was a coefficient attached to eigenvector arranged in sliding order of the eigenvalue to come up with the principal component in order of importance. Thus, the eigenvalues measured the covariance of the data. PCA was run on factors inhibiting the adoption of sustainable coping measures in Chipinge district. The PCA extracted five (5) components with eigenvalues bigger than one (1), explaining a total variance of 51.2 percent. The extracted 5 components explained 11.9%, 11.4%, 10.7%, 9.6% and 7.6% of the total variations as shown in Table 1.
Results

Principal component analysis of constraints affecting adoption of viable coping strategies in Chipinge district

Table 1 below shows the Varimax-rotated principal component analysis of challenges affecting the adoption of sustainable coping strategies in Chipinge district. Five factors were extracted from the findings based on feedback from participants. The Kaiser criterion (1960) was adopted for choosing the total number of principal factors explaining the data. In this current research, the total number was determined by leaving out factors with matching Eigen values which was below 1. Only variable with significant loading of plus or minus 0.345 and above at ten percent overlapping variance were utilised in describing variables and significant at one percent level of probability. The factors that loaded below plus or minus 0.345 were not utilised. The communality shown in table 1 represents the squared multiple relationship between the item and all other items (Ozor et al., 2010). The factors include, Factor one (Institutional, public and labour challenges); Factor two (religious values and land related constraints); Factor three (ICT and exorbitant cost of farming inputs); Factor four (off farm employment opportunities, loan constraint and the distance from the market challenges) and Factor five (ineffective rural farming projects and programmes and socio-economic service delivery challenges).

After rotation, institutional, public and labour challenges (factor one) accounted for 11.9 of the variance, religious values and land related constraints (factor two) accounted for 11.4, ICT and exorbitant cost of farming inputs (Factor three) accounted for 10.7 and off farm employment opportunities, loan constraint and the distance from the market challenges (Factor four) also accounted for 9.6. The fourth factor also accounted for 7.6. In this current study, the factors that were taken explained 48.5 percent of the total variance in all the 22 inhibiting variable components. Table 1 shows the results of the PCA of factors that inhibit the adoption of sustainable coping measures in Chipinge district.

Institutional, public and labour challenges (Factor 1)

The factors integrated inadequate government policies to empower households (0.753), insufficient access to weather forecasting technologies (0.755), absence of institutional facilities (0.654) and insufficient household access to awareness information on climate change adaptation (0.567), lack of household labour (0.486), and state irresponsiveness to climate hazards. The absence of farming information and viable institutions poses serious problems to households in Chipinge district. Interviews revealed that households are not sentient of the new trajectories regarding climate change and the necessary readjustments required in order to address household food insecurity. These findings corroborate Mengistu & Haji (2015) who
discovered that as household access institutional and public amenities, the probability of choosing viable options increases by 0.052 at p<10% (holding the value of other variables constant). Furthermore, these findings corroborate Enete et al. (2010) who posit that lack of public and institutional amenities to support household coping capacity affect their adaptation ability in Southern Nigeria.
Table 1: Principal Component Analysis of Challenges Affecting Adoption of Sustainable Coping Strategies in Chipinge District

<table>
<thead>
<tr>
<th>Challenge affecting sustainable adoption</th>
<th>Components*</th>
<th>Communality</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F 1</td>
<td>F 2</td>
</tr>
<tr>
<td>1. Inadequate weather forecasting</td>
<td>0.756</td>
<td></td>
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<tr>
<td>2. Absence of government policies</td>
<td>0.753</td>
<td></td>
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<tr>
<td>3. Absence of supporting institutional amenities</td>
<td>0.655</td>
<td></td>
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<tr>
<td>4. High cost inputs</td>
<td></td>
<td>0.669</td>
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<tr>
<td>5. Household religious norms</td>
<td></td>
<td>0.591</td>
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<tr>
<td>6. Communal land ownership</td>
<td></td>
<td>0.587</td>
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<tr>
<td>7. Lack of collateral security</td>
<td></td>
<td>0.401</td>
</tr>
<tr>
<td>8. Customary belief systems</td>
<td></td>
<td>0.457</td>
</tr>
<tr>
<td>9. High cost of irrigation facilities</td>
<td></td>
<td>0.488</td>
</tr>
<tr>
<td>10. Poor early warning systems</td>
<td></td>
<td>0.428</td>
</tr>
<tr>
<td>11. Subsistence farming</td>
<td></td>
<td>0.769</td>
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<tr>
<td>12. Land inheritance</td>
<td></td>
<td>0.743</td>
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<tr>
<td>13. Distance from the market</td>
<td></td>
<td>0.613</td>
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<tr>
<td>14. Participation in off-farm jobs</td>
<td></td>
<td>0.580</td>
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<tr>
<td>15. Poor access to farm land</td>
<td></td>
<td>0.791</td>
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<tr>
<td>16. Lack of government intervention</td>
<td>0.417</td>
<td></td>
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<tr>
<td>17. Lack of farm labour</td>
<td></td>
<td></td>
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<tr>
<td>18. Lack of credit facilities</td>
<td></td>
<td>0.467</td>
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<tr>
<td>19. Effects of climate change</td>
<td></td>
<td>0.452</td>
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<tr>
<td>20. Poor extension amenities</td>
<td></td>
<td>0.746</td>
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<tr>
<td>21. Poor farming service delivery</td>
<td></td>
<td>0.774</td>
</tr>
<tr>
<td>22. Inadequate storage facilities**</td>
<td></td>
<td>0.630</td>
</tr>
<tr>
<td><strong>Percentage of total variance</strong></td>
<td>11.9</td>
<td>11.4</td>
</tr>
</tbody>
</table>

*Factor 1: Institutional, public and labour challenges; Factor 2: Religious values and land related constraints; Factor 3: ICT and exorbitant cost of farming inputs; Factor 4: Off farm employment opportunities, loan constraint and the distance from the market challenges; Factor 5: Ineffective rural farming projects and programmes and socio-economic service delivery challenges.

** Challenges that loaded under more that 1 factor
**Religious values and land related constraints (Factor 2)**

The variables that loaded high were poor access to land resources (0.783), high cost of farming land (0.791), communal land ownership system (0.743), customary norms and values against adoption of scientific farming methods (0.655), spiritual beliefs of the household head (0.591), lack of deposit requisite to secure credit (0.402). These results agree with Mjonono et al. (2009) who also suggest that inadequate land for agricultural activities in rural areas is the major factor inhibiting the adoption of sustainable coping strategies. These findings also confirm Ozor et al. (2011) who exposed that high input cost is also a key barrier to the adoption of viable coping options. Furthermore, Bedeke (2012); Irohibe & Agwu (2014) and Adimassu & Kessler (2016) concur that religious values affect the adoption of coping strategies. In a study among the Oromo ethnic group in Ethiopia, Adimassu & Kessler (2016) discovered that food insecurity affected Muslims more than Christian communities due to their strict choice of coping strategies.

**Poor information on early warning systems and ineffective communication and technology challenges (Factor 3)**

Factors that loaded high included high expenditure on irrigation amenities (0.487), illiteracy of household members (0.487) and inadequate information disseminated on early warning systems (EWS). The finding on EWS agrees with Mengistu & Haji (2015) who posit that as households access EWS, the probability of them selecting viable coping strategies increase by 0.542 at a p<1%, holding the value of other variables constant. These findings concur with Mengistu & Haji (2015); Makoti & Waswa (2015) and Ahmed et al. (2015) who also noted that access to EWS is a major factor that determines adoption of coping strategies. Preceding studies (Ziervogel et al., 2006; Bryana et al., 2009; Hunnes, 2015) reveal that households with better access to information through farming extension workers invest more in devising sustainable strategies for coping with food deficit.

**Off-farm employment opportunities, loan constraint and the distance from the market (Factor 4)**

Distance to the market (0.613), participation in off-farm employment (petty trading, artisans, civil service (0.580), subsistence food production (0.517), lack of credit facilities (0.451) were the variables that loaded high. These findings corroborate Bedeke (2012); Abur (2014) and Adenyi & Ojo (2013) who discovered that inadequate rural credit facilities militate against adoption of sustainable coping options. Mengistu & Haji (2015) and Dube (2016) further confirm that limited access to credit facilities and inadequate information on market products are major factors which inhibit the adoption of sustainable coping options. Furthermore, Adimassu & Kessler (2016) reported negative correlation (p< 0.10) between access to the market and access to credit. This means that households with access to markets have a better chance of adopting viable coping options. Conway & Schipper (2011) also argue that households closer to the markets are prone to migrate in order to carry out off-farm activities.

**Ineffective rural farming programmes and socio-economic service delivery challenges (Factor 5)**
The factors that loaded high included poor extension facilities directed to enhance household coping capacity (0.774) and deplorable farming extension delivery systems (0.746). These results agree with Anselm & Amusa (2010); Adenyi & Ojo (2013) and Andres & Lebailly (2015) who suggest that inadequate rural agricultural extension is one of the factors that incapacitate households from adopting viable coping strategies. Furthermore, Mengistu & Haji (2015) discovered that access to rural farming programmes, increases the probability of choosing viable coping strategies by 0.019 at a p<5%, holding the value of other variable constant. Babatunde et al. (2007) and Dube (2016) posit that farmers’ access to extension service is one of the determinants of coping in semi-arid regions.

Discussion
This study focused on the factors that influence the adoption of sustainable coping strategies in Chipinge District. The district is extremely susceptible to food deficit due to climate shocks. This has affected the conventional coping measures. Thus, preferred coping measures have been weakened and are ineffective in overcoming the effects of environmental degradation. This current study identified numerous variables that affect adoption of sustainable coping strategies, grouped in five major components. These components included: (1) institutional, public and labour challenges, (2) religious values and land related constraints (3) Poor information on early warning systems and ineffective communication and technology challenges, (4) off-farm employment opportunities, loan constraint and the distance from the market, and (5) Ineffective rural farming programmes and socio-economic service delivery challenges.

Lack of information on climate change and EWS pose severe problems to preferred coping strategies as most households are oblivious of modern developments concerning climate change. Thus, households are ignorant of the essential coping changes required in order to address household food deficit. Absence of coping capacity due to challenges associated to inadequate access to climate forecasts result in staid gaps between households and practical information that should assist them in their agricultural activities (Isaboke, 2006; Kuwenyi et al., 2014). Abur (2014) and Adugna & Fikadu (2016) posit that climate forecasts are required to assist farmers to make viable decisions on selecting a range of coping options. However, lack of early warning information makes it difficult for household to plan and devise viable coping options. Thus, households continue to become more susceptible to the impact of food shortages in Chipinge district.

In terms of practical interventions, stakeholders should invest in revamping both the traditional and conventional early warning systems. The revival of indigenous knowledge systems should be led by the local people because they know the local knowledge systems that have worked in the past under prevailing socio-economic and physical conditions.

The results reveal the significance of access to information, which is essential to improve households’ knowledge and responsiveness to food deficit. Babatunde et al. (2007) and Tshediso (2013) suggest that farming related information can be disseminated through communication media such as newspapers, pamphlets, farmers’ magazines and radio platforms. The utilization of agricultural development agents in
supporting households on environmental related issues and identification of viable coping options should be strengthened in the study area. Furthermore, improving communication media (such as cell phone network) and availing information concerning ecological variations and apt coping options is critical in Chipinge district. Asmelash (2014) and Cheema & Abbas (2016) suggest that smallholder and subsistence households are vulnerable to climate changes. Therefore, in terms of interventions, stakeholder efforts are required to build household resilience to a range of ecological stresses and shocks.

Inadequate education and limited extension contacts were the major constraints inhibiting the adoption of sustainable coping strategies in the study area. A number of preceding studies (Maxwell, 2006; Muche et al., 2014; Cheema & Abbas, 2016) suggest that the higher the level of farming contacts with extension amenities and education attained, the higher the probability of using sustainable coping strategies. According to Kuwenyi et al. (2014) and Adugna and Fikadu (2016) learning increases the capacity of households to take up farming improvements and therefore, enhance their efficiency and output. Extension services provide informal guidance that assists to release the innate talents and intrinsic innovative traits of household members. Furthermore, education enhances farmers’ capacity to appreciate, assess and take up novel farming methods that lead to increased household productivity. Stakeholders should direct efforts towards increasing extension contacts in the study area. This strategy can be implemented through integrating stakeholder efforts and assess the comparative advantage of each member.

Market is the main means of accessing pecuniary assets in Chipinge district. Nevertheless, as a distance increases it affects household participation in the market. This situation compels households to rely on their customary coping practices. As a result, households are exposed to food deficit risks due to inaccessibility of market services. Mengistu & Haji (2015) notes that improving market accessibility plays a considerable role in improving coping strategies and the customary livelihood systems of rural households. Otherwise, without improving the access to the market, rural communities in Chipinge district would be forced to depend on outside interventions.

The findings also reveal that availability of household labour is one of the variables affecting the adoption of sustainable coping strategies in the study area. Most households had limited accessibility to labour due to migration of able bodied members. Ahmed et al. (2015) and Dube (2016) posit that households with restricted labour have limited coping and adaptation capacities. Thus, in terms of policy implication, there is urgent need to build up labour sharing institutions in the study area in order to improve households’ coping capacities.

The results shows that inadequate training on sustainable farming practice pose a challenge on the adoption of viable coping strategies in the study area. Access to training assists households to model their coping options along the practical path of strategies that have succeeded under conditions prevailing in the
study area. However, rural households in Chipinge district depend on already weakening conventional local knowledge than scientific knowledge. Households in the study area value their indigenous knowledge systems than outside information as a result of its realistic and practical background. Nevertheless, any training provided to rural families should improve their local knowledge systems which will enhance the espousal of new information and training. Therefore, in order to enhance community awareness there is urgent need to examine their local knowledge systems, households' needs and capacity.

Conclusion

The results revealed that challenges affecting adoption of coping strategies are multifaceted and complex. Public, labour and institutional constraints; inadequate land, religious beliefs and neighbourhood norms constraints; exorbitant cost of farming inputs, information and technological challenges; distance from the market, access to information, off-farm and rural credit challenges and ineffective rural projects were identified as major constraints. Increasing household coping capacity, as well as availing extension services easily to the rural communities could enhance food coping strategies in Chipinge district and could be relevant to other districts with comparable context and background. This means that both state and non-state actors should intensify efforts on enhancing technological, institutional and land tenure systems as pillars for guiding the adoption of viable coping measures in Chipinge district. Furthermore, stakeholders should support studies on drought-resistant crop varieties in order to enhance household coping capacity. Furthermore, training and educating household heads on better farming practices and increasing agricultural output on a sustainable basis by ensuring ecological steward are key interventions necessary to ensure the adoption of viable coping strategies. The findings in this current study assist policy makers to make informed decisions that facilitate the adoption of sustainable coping options.

References


Combating Sexual Harassment in Ivory Tower in Nigeria: Mixed feelings

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Abstract: Sexual harassment is widespread among university students in Nigeria. However, unlike other sexual violent crimes, incidences of sexual harassment in Nigerian universities are underreported. While it is challenging to assess the extent of such abuse, its impacts on victims are far-reaching. This study evaluates institutional efforts in combating sexual harassment in institutions of higher learning in Nigeria. Data for this study was collected using the descriptive qualitative approach comprising both the semi-structured interview and document analysis. Findings (among others) indicate that the absence of a comprehensive law that criminalises sexual harassment in institutions of higher learning in Nigeria is a major setback to the campaigns against the menace. The study also found that while asymmetric power-relations exist between students and lecturers, sexual harassment also thrives on a transactional basis. Moreover, there are structural factors within the university system that engender sexual harassment. From the findings of the study, it is evident that measures at combating sexual harassment in institutions of higher learning have not been successful. Moreover, the academic setting itself poses discrete challenges and threats to learners who challenge the menace in the ivory tower. Therefore, combating this phenomenon will necessitate an all-inclusive approach that transcends the enactment of law.

Keywords: Sexual harassment, female learners, higher institution, Nigeria

Introduction

From time-immemorial, institutions of higher education are not just designated ascitadels of learning, they are also considered as social establishments where societal values and ethos, are inculcated and upheld (Alexandra, 2018). However, in recent times, they seem not to be the ivory towers of the past but showgrounds for sexual harassment and victimisation (Joseph, 2015). Internationally, complaints on sexual harassments surfaced in the 1980s and its frequency have increased over the years (Joseph, 2015; AAUW Educational Foundation, 2011). While sexual harassment pervades universities and other educational institutions across the globe, it is assuming critical dimensions in Nigeria (Joseph, 2015; Imonikhe, Aluede, & Idogho, 2011; Okwuo, 2006; Ladebo, 2003).

In recent times, sexual harassment is widespread in Nigerian universities (Idris, Adaja, Audu & Aye, 2016). Though it is challenging to provide accurate statistics on the extent of the crime due to its under-reporting, anecdotal reports show that it is rampant (Joseph, 2015; Okeke, 2011; Owoaja, 2010). Studies have shown that sexual harassment in Nigerian universities takes varying forms, the prominent ones are in the form of...

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male lecturers to female students, male lecturers to female lecturers, and male students to female students (Imonikhe, et al, 2011; Ogunbameru, 2006). A report on sexual harassment in Nigerian tertiary institutions showed that 69.8% of female graduates were reported to have been sexually harassed by their male classmates and lecturers while in school. 32.2% of them reported that they received sexual requests in exchange for academic favours, while 29.4% of them experienced unwanted sexual touching (Otekunrin, Makinde & Adepoju, 2017). However, this study focuses on male lecturers to female students’ dealings. The rationale stems from the findings of previous studies that held that while the menace affects both male and female students, it is the female students that suffer much of the brunt, and the most victimised (Saeed, 2017; Omonijo, Uche, Nwadialor & Rotimi, 2013). However, despite its prevalence in the country, it is often repudiated or trivialised (Otekunrin, et al, 2017).

Several complaints on sexual harassment have been received from female students – especially from those who have had recurring encounters with randy lecturers (Idris et al, 2016; Okeyo, 2014; Owoaja, 2010). Much of these complaints have been publicised in the media (electronic, print, and social) and by civil society (Makinde, 2018; Familugba, 2016). For instance, in April 2018, a Professor in one of the foremost universities in Nigeria was alleged to have sexually harassed a female student (Alexandra, 2018; Lawal, 2018). Their recorded conversations leaked to the media and became a subject of national debate. There are pockets of similar incidences in other universities in the country (Makinde, 2016). While the public is calling for the expulsion and prosecution of these academics, there are relatively few others (especially their colleagues) who have contrary views on the incidences – indicating they were politically motivated (Aluko, 2018). Regardless of how the pendulum swings, sexual harassment of female students is a gross violation of human rights, and a crime. Hence, there is the need to address this problem!

Partly driven by the findings of previous studies (Ogunbameru, 2006; Reena & Saheab, 2012; Joubert, 2009; Vohlídalová, 2015), and recurring media reports on the spate of the phenomenon, combating sexual harassment is at the vanguard of safety and security efforts at universities and other educational institutions in different parts of the world. In a bid to address this menace, many countries have been formulating and implementing policies, laws, and code of conduct (Vohlídalová, 2015; Reena & Saheab, 2012; Joubert, 2009; Vohlídalová, 2015). While efforts are being made at combating the menace in other parts of the world (Makinde, 2016, AAUW Educational Foundation, 2011), little is known about the institutional measures that have been adopted by universities in order to address sexual harassment, especially of female students in Nigerian universities.

Based on the aforementioned, some questions beg for answers: why has sexual harassment persisted in Nigerian Universities? Are there measures put in place to combat sexual harassment in Nigerian universities, and how effective are they? This study evaluates institutional efforts in combating sexual harassment in Nigerian universities. Using a sample of 30 respondents from an in-depth interview with both students and academic staffs of the University of Abuja (UNIABUJA) Nigeria, the article evaluates institutional efforts in combating sexual harassment in higher institutions of learning in Nigeria. Drawing on
these data, this study explores if there are existing institutional policy on sexual harassment in University of Abuja, and assesses (if there is) its effectiveness. It is expected that findings from this study will contribute to the persistent debate on sexual harassment of students in Nigerian universities, bridge the gap in literatures, especially on why the incidence has persisted, and measures that can be adopted to combat it.

**Conceptualising sexual harassment in institutions of higher learning**

Like most socio-criminological constructs, defining sexual harassment is perplexing! The complexity surrounding its definition is partly nuanced by the wide range of heterogeneous behaviours, meanings, interpretations and misconceptions that are frequently attributed to it. It is also essentially due to the varying institutional milieus and contexts within which it is carried-out. The forces and factors that engender the crime also vary from one country to another. There is also the dichotomy between lexical and legal definitions of this socio-criminological construct. Hence, it is relatively very difficult to come across any definitions that establish clear-cut demarcations on which behaviours ought to be considered as sexual harassment (Gillaner Gadin, 2011). However, considering the milieu within which this study was conducted, the author prefers the definition offered by Ogunbameru (2006). Sexual harassment was defined by Ogunbameru (2006:3) as *any abnormal sexual overtures, proposals, approaches, moves by any individual occupying a superior, inferior, advantaged, disadvantaged position to seek sexual favours (either overtly or covertly) which makes a submission or rejection explicitly or implicitly a basis for the enhancement of academic performance.*

In relative terms, this definition assists in dispelling the over-sensationalised perception of male lecturers as the harasser and female students as the harassed. It considers the harassment of male lecturers by female students. Moreover, some of the nouns and adverbs used, such as ‘sexual overtures’, ‘superior’, ‘inferior’, ‘advantaged’, ‘disadvantaged’, ‘overtly’ and ‘covertly’ help to clarify some existing controversies in relation to the social construct. For instance, going by the definition, the harasser or the harassed does not necessarily have to be a person occupying an advantaged or superior position. Female students who are often perceived as the inferior or disadvantaged or the harassed may possess certain privileges or powers that can compel male lecturers to succumb to their antics. These powers are relative. Female students may possess spiritual power, which is manifested sometimes in the form of seduction (Ogunbameru, 2006). However, this cannot be scientifically proven (Ogunbameru, 2006).

Furthermore, from the above definition, it is evident that male lecturers could use their superior, or advantaged position to verbally or physically pressurise female students for sexual favour in order to influence their grade. Such superior position could be used by male lecturers to negotiate for sexual pleasure. This they do, using the weaponry of both the ‘pen’ and ‘the score sheet’ as lifelines to good grades to a cooperative female student (Ogunbameru, 2006).
Conversely, however, female students in higher institutions of learning could sometimes capitalise on their superior or advantaged privileges to hoodwink lecturers to obtain or secure undeserved scores (Ogwu, 2016). This is another form of asymmetric power relation between the female students and their male lecturers. Hence, there is a power relations in sexual harassment debate, and in most cases, this power relation is asymmetrical (Ogunbameru, 2006). The asymmetrical nature of this power is like a pendulum that could swing either way. Female students are likely to be more powerful than male lecturers when they have in their possession what the latter desires, or are in need of, and deny them of such (Ogunbameru, 2006). However, in much of these power-relation tussles, it is the female students that are usually at the disadvantaged position.

**Literature review**

Sexual harassment is a pervasive problem in university campuses across the globe (Kayuni, 2009). From the comprehensive work of Paludi (1990) on sexual harassment in institutions of higher learning in the United States, spectrums of studies have been conducted on the menace in other climes. Findings from most of these studies indicate that female students in universities experienced high rate of sexual harassment perpetrated by lecturers, athletic coaches, and fellow students (Perkins & Warner, 2017; Eller, 2016; Hill & Silver, 2005). For instance, Hill and Silva (2005) found that nearly two-thirds of U.S. college students have experienced some forms of sexual harassment. In another study, the Association of American Universities found that 11.7% of the students across 27 universities have experienced some form of non-consensual sexual contacts by physical force and threats of physical force (Cantor & Fisher, 2015). Researchers have attributed sexual harassment of female students in institutions of higher learning to power differentials between students and lecturers (Ogunbameru, 2006; Hill & Silver, 2005). Such dynamics are often construed to be structured in an asymmetric manner, engendered by a system that is populated by male lecturers. In contrast, however, the author of this article argues that beyond such sensationalised assumption, more often than not, in practice, power relations in a heterosexual relationship between students and lecturers are symmetrically shaped in practice. Bolstering this position, Elle (2016) argued that power relations between female students and male lecturers are transactional. Female students frequently get entangled with male lecturers in order to meet end needs. Male lecturers are seen by female students as gatekeepers to a range of scarce resources (Eller, 2016). Therefore, such scenario contradicts the broader assumption of the relational power in a sexual harassment discourse as asymmetric.

While several studies on sexual harassment in Nigeria have focused on spectrums of aspects of the menace, with little or no study on institutional response or efforts in combating the phenomenon in Nigerian Universities, hence, the need for this study. The goal of this study is to not just to redress these gaps, but to also advocate for urgent measures to be taken in order to address the menace in ivory towers in Nigeria.
Factors engendering sexual harassment in institutions of higher learning in Nigeria

As earlier mentioned, sexual harassment is prevalent in Nigerian universities. However, just like any other crime, several factors contribute to the prevalence of sexual harassment in these institutions. From a study conducted by Adedokun (2005) on sexual harassment in Lagos State University, a combination of lack of academic integrity, as well as wrong perception of female students’ mode of dressing were identified as major factors that contribute to sexual harassment in the university.

In another study, Okoroafor, et al (2014) found gender stereotype, oppression of women, the patriarchal construct of manhood, communal pressure to secrecy, as well as the lack of specific policies that addresses the problem of sexual harassment as some of the age-long factors that contributeto the prevalence of the menace in Nigerian universities. Bolstering this finding, Okeke (2011) opined that incidences of sexual harassment of female students sometimes point to the patriarchal configuration of many African societies, and universities. Women who raise issues of sexual harassment are often labelled as trouble-makers (Amukugo, 2017). Quid pro quo, sexual harassment in the form of sex in exchange for marks at tertiary institutions diminishes the fundamental rights of victims and impedes on their educational achievements (Amukugo, 2017).

The effects of sexual harassment are far-reaching, much of which take a toll on victims education resulting in poor academic performance, incessant absenteeism from school, to mention a few (Hand & Sanchez, 2001; Chesire, 2004). Furthermore, sexual harassment has serious implication for the individual victims, and institutions of learning as a whole. It can affect female students’ psychological and physical well-being, as well as their academic achievement (Hunt, et al., 2007). Sexual harassment causes irritation, frustration, anxiety, stress, and trauma on the individual victims (Taiwo, et al., 2014). Moreover, a study by Edwin (2006) indicates that sexual harassment can make students avoid school, experience low academic performance, diminish their interest in education or co-curriculum activities, and lowers their dedication to academic life. Studies have also shown that the consequences of sexual harassment even at low levels for the victims could include impaired psychological well-being, such as lowered self-esteem, nervousness, irritability and anger (Okeke, 2011; Ogwu, 2016; Ladebo, 2003). Female students who experienced harassment may exhibit a form of ‘job withdrawal’ behaviour in terms of changing their major subjects’ choices, altering career plans, or avoiding a threatening situation (Okeke, 2011; Ogunbameru, 2006).

Response to sexual harassment in institutions of higher learning: international and local perspective

The need to protect women from sexual harassment and other forms of gender based violence and discrimination engendered the international community to introduce legal standards at the international level. For instance, the United Nations General Assembly Resolution 48/104 on the Declaration on the Elimination of Violence Against Women (DEVAW) defines violence against women to include sexual
harassment, which is prohibited at work, in educational institutions, and elsewhere (Article 2(b)). It also encourages the development of Penal, Civil or other administrative sanction, as well as preventative approaches against women (Art 4(d-f). The Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW) directs State parties to take appropriate measures to eliminate discrimination against women in all fields, specifically including equality under the law, in governance and politics, the workplace, education, healthcare, and in other areas of public and social life (Art 7-16).

Moreover, in the Beijing Platform for Action, Paragraph 178 recognises sexual harassment as a form of violence against women and as a form of discrimination, and calls on multiple actions including government, employers, unions, and civil society to ensure that government enact and enforce laws on sexual harassment and that employers develop anti-harassment policies and prevention strategies. Other international standards such as the International Labour Organisation (ILO) Convention (No. 111) of 1958 and (No. 169) of 1958 confirmed that sexual harassment is a form of gender discrimination and prohibits sexual harassment in the workplace (which include educational institutions).

As specified in the UN Handbook for legislation on violence against women, the UN Division for the Advancement of Women identified several key areas that legislations on sexual harassment should address (United Nations, 2010). In section 3-4, the UN Handbook specifies that such legislation should:

- Criminalise sexual harassment;
- Recognise sexual harassment as a form of discrimination;
- Recognise sexual harassment as a violation of women’s rights with health and safety consequences;
- Recognise that harassment occurs in both vertical (such as between teacher and student or between manager and employee) and horizontal power relationships (such as between employees at the same level);
- Provide effective criminal, civil, and administrative remedies for victims;
- Address harassment in multiple sectors including public places, employment (formal and informal sectors), education, housing, commercial transactions, provision of benefits and services, and sporting activities - (United Nations, 2010).

Nigeria is a signatory to some of these international standards and had ratified them, yet incidences of sexual harassment, and other forms of discrimination against women still persist in the country. Section 42(1) of 1999 Constitution of the Federal Republic of Nigeria (As amended) made provisions for the prohibition of discrimination against a Nigerian citizen on the basis of sex. However, the provision is limited in scope and relatively selective. One major limitation of this provision is that it specifically provides protection against “any law in force in Nigeria or any executive or administrative action of the government”.
This suggests that the provision only covers people from discrimination against laws and executive actions of government but does not protect against discrimination from other sources such as from individuals, organisations / institutions or workplace policies or practices that are discriminatory (Okongwu, 2017).

As nuanced by physio-social and psychological and unethical conducts in academic environment, it is regrettable however, that in Nigeria there is no federal legislation dedicated to combating this phenomenon. While there is bill at the National Assembly on the prohibition of sexual harassment in higher institutions in Nigeria, it is yet to be passed into law. Specifically, in 2006, the Sexual Harassment Prohibition Bill was sponsored to the National Assembly, and deliberated upon, but it is yet to be implemented (Olukayode, 2017). Without implementation it is impossible for law enforcement agencies and other relevant stakeholders to effectively prosecute this crime.

The provisions of the bill were targeted at protecting students in the Nigerian Educational Institutions who fall victim to sexual harassment by lecturers and educators who use their fiduciary position of authority, dependency and trust to exploit despondent students (Olukayode, 2017). While this start seems to be an encouraging step at stemming the malefashions of sexual harassment in higher institutions of learning in the country, critics have argued that the law is limited in scope (Olukayode, 2017). Specifically, it excludes secondary school students (Olukayode, 2017).

However, the government of Lagos State seems to have responded to the challenges by including in its Criminal Law Code, a section on prohibition of harassment. The Code described harassment as unwelcomed sexual advances, requests for sexual favour and other visual, verbal or physical conduct of a sexual nature which when submitted to or rejected:

(a) implicitly or explicitly affects a person’s employment or education opportunity or unreasonably interferes with the person’s work or educational performance; (b) implicitly or explicitly suggests that submission to or rejection of the conduct will be a factor in academic or employment decisions; or (c) create an intimidating, hostile or offensive learning or working environment. The punishment for transgressors is three (3) years imprisonment. (Lagos State Criminal Code Law, 2011, s.262).

The above initiative may produce positive outcomes if replicated in other States of the federation. The Lagos State Law Protects the academic, secondary school students, as well as those harassed at workplace (Olukayode, 2017). At present, incidences of sexual harassment are becoming more threatening to sustainable work commitment and academic performance in Nigerian institutions of higher learning. As such, it stakes are getting higher as a pernicious complex menace that is devoid of any personal status, educational attainment, religious background or development of any nation. In the Nigerian educational domain, the aggregate of sexual harassment in the universities is of high magnitude (Yebisi & Olukayode, 2017).

Sexual harassment is not just a violation of human dignity and equality guaranteed to human beings in every civilised social system, it is also a violation of right to life and peaceful existence guaranteed by the Constitution of the Federal Republic of Nigeria (Chapter 4 of the Constitution of the Federal Republic of
In addition to national legislations, part of the provisions of the UN standards against sexual harassment recommend the introduction of policies and procedures that aimed at preventing and eradicating sexual harassment in institutions of higher education. To this end, scholars have suggested different criteria for policy on sexual harassment in ivory tower (Joubert, 2009; Wetzel & Brown, 2000). For instance, as part of the criteria, Wetzel & Brown (2000) recommend that for an effective policy outcome on sexual harassment, it should (among others) clearly indicate that sexual harassment is a violation of the law. Also, it must comprehensively define the meaning of sexual harassment, and clearly list all the sanctions and punishments against perpetrators (Wetzel & Brown, 2000). Lastly, these scholars argued that such policy must be well disseminated to all university community members, including teachers, students and non-academic staffs. Such policy should also be subjected to regular review and evaluation (Joubert, 2009; Wetzel & Brown, 2000).

In other countries, sexual harassment in educational institutions was addressed by enacting educational laws, code of conduct, as well as local policies and disciplinary codes (Teodoros, 2016; Reena & Saheab, 2012). In addition to the formulation of these policies, different institutions were set-up to implement the policies (Teodoros, 2016; Joubert, 2009). Countries like United States of America (USA), Pakistan, Ghana, Kenya and South Africa, have existing policies on sexual harassment in educational institutions (Teodoros, 2016; Joseph, 2015; Joubert, 2009; US Department of Education, 2008). In the US, for example, under Title IX of the Educational Amendments Act of 1972, higher educational institutions are mandated to develop policies in order to address claims of sexual harassment against students (Teodoros, 2016; US Department of Education, 2008). Similarly, the government of Pakistan also introduced a policy on the protection against sexual harassment of women at workplace in 2010 in 128 public sectors, including higher educational institutions (Teodoros, 2016; Joseph, 2015). According to Joseph (2015), one major reason behind the adoption of the policy is to protect students from threats, violent and hostile behaviours, or be forced by male lecturers to have sex in exchange for grades (Joseph, 2015). However, in most of these countries, the implementation of the policy frameworks on sexual harassment in educational settings has been the elusive (Teodoros, 2016; Joseph, 2015). In conformity to the above, it is imperative for policy documents on sexual harassment well implemented and for structures to set-up for its enforcement.

**Methodology**

This study utilised a descriptive qualitative research approach. The rationale behind the selection of this approach was based on the fact that it deals with the examination of views, attitudes and experiences of respondents. Moreover, the goal of the study was to explore the effectiveness of institutional policies, and how to combat incidences of sexual harassment of female students in institutions of higher learning, the researcher was persuaded that such objectives can best be achieved through interviews. Similarly, the
purpose of conducting interviews in this study was to find out the views, and experiences of the participants about sexual harassment.

A purposive sampling technique was utilised. The rationale for adopting this sampling technique was premised on the basis that the researchers were aware of persons within the university that can provide valuable information, experiences and opinions in relation to the problem under consideration. Specifically, thirty (30) persons were interviewed: Five (5) academic staff; 5 non-academic staff. In addition, twenty (20) students, three (3) of whom are Executives of the University’s Students’ Union Government. Ethical issues were upheld during data collection. Participants were informed about the goal of the study and their consents sought before the researcher could proceed with the interview. Face-to-face interview was held with each respondents, and questions posed to the respondents were not generic.

Research site

This study was carried out in University of Abuja (UNIABUJA), Abuja Nigeria. The institution is situated in the country’s Federal Capital Territory (FCT). It has ten faculties and offered diploma, degree, post-graduate and distance learning programmes. As at the time the study was conducted, it has an enrolment of over 20000 students, which makes it one of the largest universities in Nigeria (UNIABUJA, na). The researcher considered the institution as a suitable site for the study based on media reports and complaints on sexual harassment of female students in universities across the country (Familugba, 2016; Makinde, 2016) and anecdotal accounts of students studying at the university known to the first author.

Results

As earlier indicated, a qualitative approach was adopted for the study. Hence, the analyses in this section are based on the views of the respondents interviewed for the study. The views of respondents are indicated by an “R” and a number. For analysis purposes, themes were generated from the resonating views of the respondents.

Personal and vicarious Experiences of sexual harassment

One of the goals of this study was to establish whether respondents have experienced any form of sexual harassment on campus. The question was not generic. 5 out of the total respondents have experienced some forms of sexual harassment from a male lecturer or know someone that had been sexually harassed by male lecturers on campus:

I have once been a victim, but I was lucky. I know two of my course-mates that were also victims, but you know they won’t want to go into details. (R4)

I am a man, these things affect the female students most. But in the student union secretariat here, we have received several petitions on female students who were sexually harassed by male lecturers and even by their colleagues on campus? (R11)
In the first place, what is harassment? When a lecturer asked a student out, do you call that harassment? Or when a female student deliberate wear provocative attire to a lecturers office for consultation what do you call that? It depends on the angle you are looking at it. As far as I concerned, there is no harassment, it is just a game, you either win or loose… (R7)

…a lot of female students, irrespective of their performance level would have at one point in time or the other been sexually harassed by male lecturers. Some course-mates affirmed they had to sleep with lecturers to pass their courses… (R8)

Absence of an effective institutional policy / legal framework and response mechanism

The existence and viability of a swift institutional policy or legal framework and response mechanism is fundamental in order to minimise, prevent or eradicate incidences of sexual harassment in higher institutions of learning. In relation to University of Abuja, interviews conducted with 25 out 30 respondents indicate that there is no existing institutional policy or legal mechanism to checkmate the perpetrators of sexual harassment. This implication is that such gap will likely exacerbate the magnitude and prevalence of the problem. Moreover, in the absence of a structure and effective institutional response mechanism, perpetrators are likely to go unpunished. When asked if they are aware of any institutional policy or legal framework in place in relation to sexual harassment, selections of their responses are:

In the first place, it is hard for to believe a policy on sexual harassment is in place in this university because lecturers have turn themselves to semi-gods; they do whatever they like with students and get away with it. On this campus, its either you sort or you face the music as students. (R1).

Well, there might be, but as a staff I have not come across any policy document on sexual harassment in UNIABUJA. (R12)

Am not sure actually; but I do not think there is a comprehensive policy on sexual harassment in UNIABUJA. However, there is a code of conduct for staff of this institution. (R3)

No there is no specific institutional policy on sexual harassment in UNIABUJA (R4)

Yes there is, the thing is its not made open to the public but it does exists. (R5)

Well, it depends on the context and the gravity of the offense; but I am not aware of anyone that has been sanctioned for sexual harassment in the university. (R18)

I am not aware of anyone that has been sanctioned on sexual harassment on this campus. As a student unionist in this institution, once incidences of such are reported to us and you inform the authority, they have a way of covering up for their colleagues, and also try to pacify the victim and the student union government… (R4)

Yes some lecturers that were found guilty of such act were sometimes called to order or issued queries, but for prosecution, I do not think so… (R5)

Yeah, some of the lecturers would ask you politely for a date, while some will deliberately mark you down or fail you outrightly because they know you will need to pass their courses or have encounter with them in order to graduate from the system. Sometimes, the pressure become unbearable such that you would just want to give them what they want for you to pass (R8)

In the absence of a comprehensive policy framework on sexual harassment, perpetrators will continue to operate with relative impunity. Even when committees are set up, the absence of such policy framework weakens the credibility of such committees.
Some of the perpetrators are well known to students, and their colleagues. Many of them have being engaged in such misconducts for years and they have being getting away with it; so where are the structures or mechanisms that were established?  (R24)

**Lack of institutional structure / reporting system**

An effective and well established complaint reporting system is pivotal to a successful anti-sexual harassment campaigns in higher institutions (Joubert, 2009). To this end, respondents were asked if there are structures within the university where students can report incidences of sexual harassment. From the data collected, 24 out of 30 respondents indicated that there is no existing reporting system. 2 out of the remaining respondents indicated that there is no existing reporting system. 2 out of the remaining 4 were indifferent:

Yeah, students who are harassed by any lecturer could report to the dean of student affairs. (R1)

Trust me..., there is none. What gut would a student have to report his/her lecturer in a Nigerian University? Most likely, that student would have grown grey hairs before graduating from the system. (R3).

This is the north, it is very difficult for you to find any student that will want to report his/ her lecturer concerning sexual harassment, because they know nothing will be done about it (R4).

I don't think there is any structure in place that is known to any student where they can report sexual harassment. Even if there is any, you know these lecturers cover-up for themselves; even if you report, they are going to sweep it under the carpet (R5).

**Contributory factors to sexual harassment in your university?**

Apart from the positions of scholars in literature on the contributory factors to incidences of sexual harassment in educational institutions which are largely broad and generic, the researchers were interested in specific ones that are peculiar to the institution under consideration. The following themes were generated from the data collected:

**The culture of silence / patriarchy**

Like I said earlier on, this is north, you don’t raise such issue. It is very difficult for female students to expose or embarrass their lecturers (male), even when they are pained because of their experience, they just find it hard to report… (R3).

These lecturers believe that it very difficult for any student to report them, because they know their colleagues will conceal it… (R7)

Such I say it is the way our society is structured. Men generally see women as object of sexual satisfaction… (R11)

Who wants to report? To whom? We know the problem is pervasive on this campus and that colleagues are culprit, but it is like a taboo to raise such issue. The fear of reprisal and revictimisation sometimes deter students from reporting… (R9).
The desperation of student

Corruption is not just about the abuse of office... some our students are notoriously corrupt. They neither punctual in class nor do they sit for exams. If they are male students they can sort, but most female students prefer the other route... so who is to be blamed? They tell lecturers to ask for anything... (R21)

Wearing of Provocative dresses

... students themselves are the cause. Some of them wear clothes that reveal their sensitive body part... even when the institution prescribe certain dress code for them they are reluctant to comply... (R8)

Lack of political and institutional will to address the menace

... why should it take the national assembly years to pass the anti-sexual harassment bill... it has linger till date (R8).

Power-relation in sexual harassment incidences

There are divergent conclusions from previous studies regarding the power-relations in sexual harassment incidences in universities. While some studies found that power relations between students and lecturers are asymmetrical (Amukugo, 2017; Okeke, 2011; Ogunbameru, 2006), others indicated that it is contractual (Eller, 2016; Hill & Silver, 2005). Such controversy was assessed by the researchers from the respondents' perspective. From data collected, 18 out of 30 respondents reported that it is based on asymmetric power relations, while the remaining 12 believe it is sometimes based on contractual relationship:

Most male lecturers, especially professors are perceived to be very powerful and influential. Students are usually afraid to even clash with them because they can frustrate you. Such professors can do anything and get away with it. Moreover, they have network, so if you report one, you are likely to get punished by another... (R13)

... no power relation there. This thing is give and take. Some of these girls come to us half naked... so what do you call that? (R26)

State response to sexual harassment

Based on the aforementioned, the researchers were interested generating suggestions from the respondents on measures that can be adopted to combat sexual harassment in Nigerian universities. Selected views are:

Pressure should be mounted on the National Assembly to pass the anti-sexual harassment bill into law. Then UNIABUJA and other educational institutions across the country, irrespective of the tier should be compelled to develop and include some of the provisions of this law into their institutional policy... (R5)

UNIABUJA should establish a viable reporting system and a dedicated department where students who are sexually harassed by lecturers could lodge a complaint... (R7)
Randy lecturers that are reported or exposed through the media should be investigated, and if found guilty dismissed and prosecuted… (R8).

Discussions

The study reveals that several female students in UNIABUJA have experienced sexual harassment, and male lecturers were indicated as the leading culprits in most the encounters. This confirms previous findings that sexual harassment is prevalent in Nigeria Universities and that male lecturers are the main perpetrators (Okeke, 2011; Ogwu, 2016; Ogunbameru, 2006).

It is also evident from the findings that beyond the sensationalised perception that power-relation between students and lecturers are asymmetrical, there are contractual relationships between female students and male lecturers in the university under consideration. Contractual basis of relational power between students and lecturers engender sexual harassment. This finding lends credence to the study conducted by Ogunbameru (2006) on the nature of power-relation that exist between students and lecturers in Nigerian universities. Moreover, while there might be evidences of contractual relationship, findings from previous studies have shown that such relationships are at large products of certain structural imbalances or inequalities in the socio-economic setting of the country at large (Okwu, 2016; Okeke, 2011; Ogunbameru, 2006). Such inequalities can sometimes make even the good performing female students turn blind eyes or willingly consent to the slightest overtures of her lecturers (male). This type of situation makes it very different to cast aspersion on the lecturers alone. Moreover, provocative attires worn by female students to lecture theatre or classrooms were opined to have forced many male lecturers to lusts after female students.

The study also found that there is no existing legal or institutional framework to combat sexual harassment in the university. Moreover, findings further indicate that there is comprehensive legislation that addresses sexual harassment in Nigerian universities and other educational institutions across the country even at the national level. From a broader perspective, weak or absence of national and institutional response mechanism will engender the escalation of crime, including sexual harassment. Previous studies conducted in Nigeria and in other climes lend credence to this finding (Bezabeh, 2016; Taiwo, et al, 2014; Arulogun, et al, 2013).

Conclusion and Recommendations

This article sought to evaluate institutional efforts in combating sexual harassment in higher institutions of learning (university) in Nigeria. The objective of the study has been achieved. It is evident from the findings that sexual harassment of female students has persisted in the university under consideration. While concerted efforts have been made by relevant stakeholders, including parents, Civil society and the media, at ensuring that male lecturers who sexually harassed female students are brought to justice, such
anticipated end is yet to be fully actualised. Fundamentally, there is no existing comprehensive legislation on sexual harassment in institutions of higher learning in Nigeria. While a bill has been sponsored to that end, the delay in its enactment is a major setback to the campaigns against the menace in Nigerian universities. Such delay will also undoubtedly affect the prosecution of sexual harassment cases, including the efforts of law enforcement agencies in combating the menace. Hence, the bill should be enacted.

Furthermore, the study indicate that while most incidences of sexual harassment of female students in Nigerian universities are essentially products of asymmetric power-relations between male lecturers and female students, findings also suggest that some of such relationships were built on contractual basis. However, such relationships are often entered into in a bid to meet certain pressing needs, which by extension a reflection of the broader socio-economic and political milieu that engender vulnerability in the country.

The study also established that sexual harassment is a violation of the fundamental human rights of female learners in Nigerian universities and also poses serious challenge to the realisation of gender equality and sustainable development. It also weakens the reputation and integrity of our ivory towers. While a speedy passage of the anti-sexual harassment bill into law will in no little way help to ameliorate the problem, it is just a means to an end. Effective response to the anti-social and academic menace transcends the enactment of laws, but requires a collaborative effort of all relevant stakeholders, including parents, academics, civil society and policy makers. The State should also address the precipitating factors that render female students vulnerable to sexual harassment, and sometimes compel them to accept sexual overtures from male lecturers.

Based on the aforementioned, it is recommended that the State first fast-track the process at ensuring the anti-sexual harassment bill is passed into law and implemented. All universities and other higher institutions of learning be compelled to adapt the provisions of the proposed anti-sexual harassment bill to their respective institutions in a bid to formulate appropriate policies that will criminalise sexual harassment, and ensure all person on campus, especially female students are protected from sexual harassment. Indecent dress patterns should be discouraged and possibly banned on campuses, while efforts should be made at embracing culturally acceptable dresses on campuses. If all these measures are adhered to, it will go a long way in ensuring that the menace is reduced and possibly combated in Nigerian institutions of higher learning.

References


Urban Food Production and Climate Variability in Ibadan, Nigeria

Ayobami Popoola¹, Bolanle Wahab², Magidimisha Hangwelani³, Lovemore Chipungu⁴ and Bamiji Adeleye⁵

Abstract: The reality of climate variability is evident across all sectors of the economy including the agricultural sector. Urban farmers in Ibadan, an indigenous city in Africa, carry various perceptions as regards climate variability which trigger their behaviour towards the stress on urban agriculture from climate variability. This study examined urban farmers in Ibadan perception of climate variability and its effect on urban food production making use of cross-sectional survey method. The study was anchored on the concept of climate variability and perception. The study revealed that indigenous knowledge techniques and personal observation (44.3%), radio and television (20.9%), extension workers (20.1%) were the main medium through which the farmers know of climate variability. The study concluded that the farmers are well informed of variation in climate and the perceived changes will influence their decision-making on their farming activities and type of responses to climatic issues. Improved food production process was also encouraged among urban farmers.

Keywords: Urban farmers; Perception; Climate variability; Ibadan.

Introduction

Urban settlements across the world are being confronted with various environmental problems such as pollution, housing deficit and derelict, and food insecurity as a result of rapid urbanization and increasing urban population. In developing countries like Nigeria, the capacity of governments to manage this urban growth is very low and arriving at the appropriate strategies towards food production, service delivery and other urban issues to city dwellers is a challenge to urban authorities. Urban agriculture (UA) which entails animal rearing and planting of food crops within the cities spaces (Food Agriculture Organisation- FAO, 2014) has been introduced by government and engage upon by city dwellers to mitigate and solve the difficulty of food availability within the city.

Yet, the food production mitigating strategy (UA) has been shaped and negatively impacted by the varying global climate. UNEP (2013) and IPCC (2014) states that no country or continents of the world is left in the event of climate change and variability. Urban agriculture, unlike other sectors, is directly affected by this

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change and variability. Urban farmers’ means of livelihood is put into doubt and stress as their main source of income is largely affected by climate variability. Farmers are left redundant by the inability to understand the climate on which their livelihood is based. One of the resultant effects of global warming is flood which is ravaging farmlands along floodplains and wetlands, in rural and urban settlements.

As climatic variability is negatively affecting crop production, the steady increase in human population has led to a rise in the demand for food, consequently putting pressure on viable land for agricultural production. Thus, agricultural practices, especially in urban areas of developing countries, will have to adapt to changes and variability in the climatic conditions to ensure food security for human survival. Farmers still remain the fore bearers of the challenges resulting from climatic variability and urban agriculture. Vedwan and Rhoades (2001) identified that understanding climate variability patterns is integral to understanding ways in which humans and farmers will respond. As understanding perceptions and adaptation strategies of individual households or farmers and farming communities in certain area does not only provide better location specific insights but also helps generate additional information relevant for developing a climate adaptation and mitigation framework (Belaineh et al., 2013).

In order to understand farmers existing knowledge of and how they will respond to climate variability in Ibadan, it is imperative to study their perceptions of climate and their farming environment. This will facilitate informed decisions and sustainable policy towards tackling the challenges posed to farmers by climate variability. There is presently little knowledge on whether and how farmers perceive climate variability in Ibadan, Nigeria. Investigating urban farmers’ awareness knowledge therefore becomes imperative. This motivated this study which examined the socio-economic characteristics of urban farmers’ in Ibadan, their perception of climate variability and the type of crops and food produced.

Conceptual/Theoretical Discourses and Literature Review
This study is anchored on the concept of climate variability perception. Over the past two decades, scientific consensus about the reality of climate change has generally solidified in recent IPCC report (2001, 2007). Climate change is a change in the state of the climate that can be identified by changes in the mean/or the variability of its properties, and that persists for an extended period, typically decades or longer (IPCC, 2001). Umar et al. (2008) states climate change refers to a change occurring in the climate during a period of time which can range from decades to centuries. AMCEN (2011) observed that climate variability be thought of as a short term fluctuation rather than a long term climate change. The definition of climate variability has been used synonymously with climate change but the defining time frame has been changes that result in climate for typically a decade or more (IPCC, 2001; Agbola & Ojeleye, 2007; Dinse, 2011).

Information about climatic condition is very vital to agricultural productivity. Khan et al. (2009) reinstate that effective climate estimations will help guide farmers short and long range adaptation process and decision
to climate variability. These responses are individually and communally defined and based on past perceptions. Perception is the organization, identification, and interpretation of information in order to represent and understand the environment’ (Schacter, 2011; Fellmann et al., 2018) over time by self (Gibson, 1980). Going by this definition and the assertions of (Khan et al., 2009; Schacter, 2011), responding to climate variability require a longitudinal review and understanding of climate change by a person. The self in this regard is the urban farmers and the world is the urban environment which has been subjected to the shock of climate variability. As the informations or stimuli gathered from the environment subject individuals (urban farmers) is transformed into a psychological awareness which forms their perceptions (Van den Ban & Hwakin, 2000). This is because perception as a system of knowledge born from interest, cultural attachment and social processes and interactions often subject an individual to changes in behaviour. Koshti et al. (2013) operationally defined perception as the “awareness knowledge gained by the farmers” towards the climate change and variability and the changes perceived by them in climate parameters like rainfall and temperature over the period of last 40 years via the senses, based chiefly on memory”.

**Literature review**
Farmland is an important part of urban settlement landscape and urban farming a means of livelihood for urban farmers. Demand for food within the urban areas has led to increased investment in and practice of urban farming (animal rearing, tree planting, horticultural farming to crop production) in cities of developed and developing countries, thus, making urban agriculture evident within the urban enclaves. Globally, urban farming has been identified to be practised by over 800 million people (Kwasi, 2010) with a 70% employment ratio and 40.07% of Gross Domestic Products (GDP) contribution in Nigeria (National Bureau of Statistics, 2012), thus serving as means of livelihood for urban youths in Nigeria. Despite the high dependence on urban farming in Nigeria, climate variability serves as a constraint to its development. Despite the high dependence on urban farming by urban farmers for livelihood, farming within the urban area faces various shock and stress.

Climate variability remains a major threat to the human environment across the globe. Literatures (Macharia et al., 2010; Wisner et al., 2015; Wahab & Popoola, 2018) have signaled food insecurity as a result of agricultural productivity adversely affected caused by climate variability is eminent in Africa. In Nigeria, climate extremes such as flood led to the loss of over 9000 hectares of cultivable farm lands in Nasarawa state in the middle-belt zone in the year 2012 (Wahab, 2013), farm income negatively affected along the Northern corridors of Nigeria owing to drought (Oyekale, 2006), crop such as maize quantity and quality dropped in Abeokuta Southwest Nigeria (Sowunmi & Akintola, 2010) and land degradation in Southeast zone of Nigeria (Ifeanyi-Obi et al., 2012). Globally, climate variability continues to pose challenge to human environment, while agriculture production and local livelihoods is a major victim of these climate-induced
changes (Wood et al., 2014; Wahab & Popoola, 2018); with the farmers income mainly affected (Sugden et al., 2014).

Research Methods and Materials

Ibadan, opined to be the largest indigenous city in Africa is located in Western Nigeria. Ibadan with total land area of 3,123km² (15% -463.33km² urban and the remaining 85% is in the rural) (Fapojuwomi & Asinwa, 2013) is made up of eleven (11) Local Government Areas (LGA), five (5) of which constitute the Urban Local Government (see Map 1), while the remaining six (6) form the surrounding parts known as the rural or peri-urban local government. The population of Ibadan in 2006 was 2,550,593 (NPC, 2006) with a 6.018 million estimate in 2018 (Dar-Al-Handasah, 2018).

Map 1. Five Urban Local Government Areas LGA in Ibadan

Source: Department of Urban and Regional Planning, University of Ibadan, 2018.

The study was a cross-sectional survey of urban farmers in Ibadan, Oyo state, Nigeria. For this study, primary data through the use of structured questionnaires which was administered to 244 urban farmers, in-depth interview conducted to officials in the agriculture department of the five urban LGAs was used. Sample for the study was drawn using purposive, snowball and accidental sampling technique. Owing to the fore knowledge of the location of some of the urban farm lands in Ibadan, the researchers made use of purposive sampling, there after farmers were asked to identify the location of another farmland within their
environ or LGA, thus snow ball technique. To full arrive at stipulated 244 targeted sampling technique, while some of the urban farmers were interviewed on their farm land, some were interviewed at the local government headquarter during their urban farmers association meeting. The meeting time for the urban farmers across the LGAs was known through discussions with agricultural extension officers attached to urban farmers across the LGAs and also verified by the farmers’ association executive. In this instance, accidental sampling method was also adopted to administer questionnaire to the urban farmers.

Secondary data on the population of farmers were sourced from Oyo State Agricultural Development Programme (OYSADEP) office Ibadan. The sample frame for this study was the 4,073 urban farmers registered with the OYSADEP in five LGAs in Ibadan metropolis, which were distributed across 59 wards. A 6% sample size was adopted and a structured questionnaire was administered to 244 (6%) farmers selected within the 59 wards as follows: Ibadan North (75 respondents), Ibadan North-East (36 respondents), Ibadan North-West (28 respondents), Ibadan South-East (56 respondents), and Ibadan South-West (49 respondents). Extension Officers of the Department of Agriculture in the five LGAs in Ibadan urban and two field assistants were used in the data collection process. Farmers were asked to state the differences between the present climate and that of ten years ago according to climate variables of temperature, rainfall pattern and humidity. They were asked if rainfall commencement/end is now early or late. If the numbers of rainfall events, temperature and humidity have decreased, increased or remained unchanged. Interview conducted with extension officers of the Department of Agriculture in the five urban LGAs and some farmers complimented data gotten from the questionnaire.

Findings and Discussion

Socio-demographic Characteristics of Sampled Urban Farmers

Studies by Odewumi et al. (2013); Wahab & Popoola (2018) and Amoatey and Sulaiman (2018) identified the roles played by UA in the household income generation for farmers, revenue generation for government and city dwellers and workers food production in Ibadan metropolitan area. Study revealed that 47.5% of farmers depended on farming as their main source of income and livelihood, 38.6% of the farmers engaged in farming as a means of additional income while 14.0% engaged in farming as a form of leisure. Out of a total of 244 urban farmers sampled, 40.6% had a household size of between 1- 5 people, more than half (50.4%) had households with 6-10 people, while 10% had households more than 10 people. The large household size can be attributed to the need for farm labour to work on the farm, as most farmers averred that farm work was labour intensive.

The study revealed that 65.2% of the respondents were male while 34.8% were females (Table 1). The prevalence of men could be due to the labour-intensive nature of farming activity in the study area. On ages of respondents, 18.5% were below age 30 years, 23% were between age 31 and 35 years, 11.0% were aged
between 36 to 40 years, while 11.9% and 35.6% were aged between 41 and 45 years, and 45 years and above respectively. The findings on the ages of respondents conforms with the earlier findings that majority of farmers are aged less than 45 years, with youthful strength.

**Table 1: Urban farmers Socio-demographic characteristics**

<table>
<thead>
<tr>
<th>Sex of Respondents</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>159</td>
<td>65.2</td>
</tr>
<tr>
<td>Female</td>
<td>85</td>
<td>34.8</td>
</tr>
<tr>
<td>Total</td>
<td>244</td>
<td>100.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Age of Respondents</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Below 30yrs</td>
<td>45</td>
<td>18.5</td>
</tr>
<tr>
<td>31-35yrs</td>
<td>56</td>
<td>23.0</td>
</tr>
<tr>
<td>36-40yrs</td>
<td>27</td>
<td>11.0</td>
</tr>
<tr>
<td>41-45yrs</td>
<td>29</td>
<td>11.9</td>
</tr>
<tr>
<td>Above 45yrs</td>
<td>87</td>
<td>35.6</td>
</tr>
<tr>
<td>Total</td>
<td>244</td>
<td>100.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Marital Status of Respondents</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single</td>
<td>66</td>
<td>27.1</td>
</tr>
<tr>
<td>Married</td>
<td>156</td>
<td>64.0</td>
</tr>
<tr>
<td>Divorced</td>
<td>13</td>
<td>5.1</td>
</tr>
<tr>
<td>Widowed</td>
<td>9</td>
<td>3.8</td>
</tr>
<tr>
<td>Total</td>
<td>244</td>
<td>100.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Average Monthly Income of Respondents</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less Than #5000</td>
<td>11</td>
<td>4.5</td>
</tr>
<tr>
<td>#5000-#15000</td>
<td>39</td>
<td>16</td>
</tr>
<tr>
<td>#16000-#25000</td>
<td>59</td>
<td>24.2</td>
</tr>
<tr>
<td>#26000-#35000</td>
<td>61</td>
<td>25.0</td>
</tr>
<tr>
<td>#36000-#45000</td>
<td>22</td>
<td>9.0</td>
</tr>
<tr>
<td>Above #45000</td>
<td>52</td>
<td>21.3</td>
</tr>
<tr>
<td>Total</td>
<td>244</td>
<td>100.0</td>
</tr>
</tbody>
</table>

**Source:** Author’s Field Survey, 2018
More than four-fifth (85.2%) of the farmers resided within the urban interface, while the remaining 14.8% resided within the peri-urban local government areas. It was also observed that majority of the farmers resided along the core areas of Ibadan, areas such as Beere, Oja-oba, Gate, Iwo-road and Yemetu.

On marital status of the respondents, 27.1% were single, 64.0% married, while 5.1% and 3.8% were divorced and widowed respectively (Table 1). This shows that farming in the study area was practised by people of varying marital status, with more than seven-tenth (72.9%) of them being married were at one time or the other married, buttressing the observed importance of being married among the Yoruba’s that constitutes the majority in the city (Sanni & Daini, 2014).

Majority of the respondents were low income farmers. About 4.5% of the respondents earned below #5,000 a month, 16% earned between #5,000 and #15,000, 24.2% earned between #16000 and #25000, 9% earned between #26000 and #35000, 25% earned between #36000 and #45000, while the remaining 21.3% earned above #45,000 monthly.

**Urban Farmers’ Perception of Climate Variability**

Findings revealed that 88.1% of the respondents agreed that climate variability existed, while the 11.9% was of a different view that climate variability did not exist or were not sure. When the mental image or history of perception of climate variability of farmers was tested on a ten years timeline, evidence revealed a 16.8% decline in perception of climate variability over the last ten years. Data findings shows that between 2-10 years, 71.3% of the respondents agreed that there was climate variability over the last decade, 20.5% were not sure, while the remaining 8.2% disagreed that there was climate variability over the last decade (Table 2). The researchers hypothesis and argue that factors such as age of farmers, length of farming experience, timing of when farmers or farmland experience climate driven shocks can dictate the longitudinal time based experience or perception of climate variability.

As revealed in Table 2, most of the farmers have been into farming for over a decade. Number of years in farming showed that 40.9% of the respondents had engaged in farming for less than 5 years, 22.5% had been farming for between 6 and 10 years, 7.8% between 11 and 15 years, 10.6% between 16 and 20 years, while 18.8% of the respondents had been into farming for over 20 years.

The study 2 also revealed association between the number of years in farming and farmers’ perception of climate variability. For instance, while 43.0% of those who had been into farming for over a decade claimed to have awareness of climate variability, only 33.3% of those that have less than 5 years claimed to be aware of climate variability (Table 2). The study also revealed association between level of education attained by urban farmers and their level of awareness of climate variability. For instance, out of majority (76.5%) had formal education (minimum of primary school) while 23.5% had no formal education. Observed
nexus between level of education and awareness of climatic variation confirms findings of previous studies most especially (Mudombi, 2011).

Table 2: Cross-tabulation of farmers’ experience, literacy level and knowledge about climate variability in the past 10yrs

<table>
<thead>
<tr>
<th>Number of Years in Farming</th>
<th>Knowledge about Climate Variability in the last 10yrs</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Agree</td>
<td>Not Sure</td>
<td>Disagree</td>
<td>Total</td>
</tr>
<tr>
<td>1-5yrs</td>
<td>58(33.3%)</td>
<td>34(68%)</td>
<td>8(40%)</td>
<td>100(40.9%)</td>
</tr>
<tr>
<td>6-10yrs</td>
<td>41(23.5%)</td>
<td>5(10%)</td>
<td>9(45%)</td>
<td>55(22.5%)</td>
</tr>
<tr>
<td>11-15yrs</td>
<td>15(8.6%)</td>
<td>2(4%)</td>
<td>2(10%)</td>
<td>19(7.8%)</td>
</tr>
<tr>
<td>16-20yrs</td>
<td>20(11.4%)</td>
<td>5(10%)</td>
<td>1(5%)</td>
<td>26(10.6%)</td>
</tr>
<tr>
<td>Above 20yrs</td>
<td>40(23%)</td>
<td>4(8%)</td>
<td>0</td>
<td>46(18.8%)</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>174(71.3%)</strong></td>
<td><strong>50(20.5%)</strong></td>
<td><strong>20(8.2%)</strong></td>
<td><strong>244(100%)</strong></td>
</tr>
</tbody>
</table>

Cross-tabulation between farmers’ level of literacy and knowledge about climate variability in the past 10 years

<table>
<thead>
<tr>
<th>Educational Qualification of farmers</th>
<th>Knowledge about Climate Variability in the last 10yrs</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>No Formal Education</td>
<td>39(23.5%)</td>
<td>5(10%)</td>
<td>6(21.4%)</td>
<td>50(20.5%)</td>
</tr>
<tr>
<td>Primary</td>
<td>24(14.5%)</td>
<td>12(24%)</td>
<td>3(10.7%)</td>
<td>39(15.9%)</td>
</tr>
<tr>
<td>Secondary</td>
<td>44(26.5%)</td>
<td>18(36%)</td>
<td>15(53.6%)</td>
<td>77(31.6%)</td>
</tr>
<tr>
<td>Tertiary</td>
<td>59(35.5%)</td>
<td>15(30%)</td>
<td>4(14.3%)</td>
<td>78(31.9%)</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>166(70.4%)</strong></td>
<td><strong>50(21.2%)</strong></td>
<td><strong>28(8.4%)</strong></td>
<td><strong>244(100%)</strong></td>
</tr>
</tbody>
</table>

Source: Authors’ Field Survey, 2018

In Ethiopia, Mengistu (2011) identified that climate information is a necessity towards mitigating against the effect of climate variability. Information dissemination on issues relating to urban agricultural activity is the duty of agricultural extension officers and agencies such as The Nigerian Meteorological Agency (NIMET). It was revealed from field observation that dissemination of information regarding the climate and climatic forecast was not undertaken at the local farmers’ level, rather a national focus was given to information dissemination. When asked on the medium of climate and other farming related information, a farmer said this:

"...I get to know most things (climate change and farming techniques) through personal observations, my father’s mentoring or sometime we hear when we go for our farmers meeting or on radio..."
Although this cannot be refuted as the study revealed that 146 (61.8%) respondents had access to agricultural extension workers while 90 (38.2%) respondents did not. It was gathered from field observations and interview with farmers at various locations that four out of the five urban LGAs of Ibadan namely Ibadan North, Ibadan North-East, Ibadan South-West, and Ibadan North-West were accessible to agricultural extension officers. Ibadan South-East farmers complained of not having access what-so-ever to agricultural extension officers in both OYSADEP and the Department of Agriculture in the local government secretariat. At the same time, the Department of Agriculture in Ibadan South-East local government complained about unavailability of land to engage in agricultural practices as the local government area is fully built-up. In the words of the official she said:

"...To be candid, where is the land for farming in this LGA (Ibadan South-East), that a side, the political interest is not there, the few open spaces are now converted for commercial shops... We (department officials) have just mobilized through various external assistance to acquire land at the rural LGA to support the production of food..."

Findings also revealed that farmers who farmed along the floodplain areas, unused open spaces and government land such as National Horticultural Research Institute (NIHORT), had no access to agricultural extension workers. The reason for this can be attributed to the nature of the environment and security. The area in which the farmlands are located is a property of NIHORT, thus the land used for farming is just an open space which can be taken-over at any time. This limits farmers’ activities and extension workers interaction with farmers in such area. Farmers who engaged in the planting of exotic crops such as green beans and cucumber claimed that they did not have access to the extension workers because the workers had no adequate knowledge about the type of crop they grew. Interview with the Department of agriculture in the local governments and field observations revealed that lack of political will on the part of local government Chairmen or Care-taker Committee of the five urban LGAs was a hinderance to urban agriculture. Inadequate financial allocation to the Department of Agriculture in the LGAs, delay and diversion of such financial allocation were major difficulties facing the Department. Most of the LGAs allocate substantial funds to public lectures and seminars but little for field programmes. Hence, too few financial supports were available for the needing farmers.

**Relationship between some selected urban farmers’ variables and climate variability**

The relationship between the socio-economic characteristics (age, sex, educational qualification, farm size, income, farming history) and farmers’ perception of the climate variations was tested using chi-square analysis and presented in Table 3. The analysis finding as presented in Table 3 showed that age, length of farming experience and farmers’ educational status influenced the variation in their perceptions of the nature of change in rainfall pattern. With a Pearson Chi-square 2-ways test of confidence level significance value of 0.040 (which is lesser than 0.05%) for relationship between age and farmers perception. This means that there is over 95% confidence level in the prediction. For the number of years in farming and educational status of farmers, there was a significance value of 0.000 respectively. This reveals that as far as all other socio-economic characteristics and farmers perceptions of climate variability were concerned,
there is no significant variation. The study revealed that farmers in Ibadan are more aware of rainfall variability than any of the other measured climate parameters (temperature and humidity).

Table 3: Chi-square test of relationship between socio-economic characteristics and farmers’ perception of climate variations.

<table>
<thead>
<tr>
<th>Socio-economic characteristics of farmers</th>
<th>Perceived change in Humidity</th>
<th>Perceived change in Temperature</th>
<th>Perceived change in Rainfall</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Increase</td>
<td>Decrease</td>
<td>Increase</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
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Chi-square value 7.812<sup>a</sup>  
(Significance value 0.099**)  
 Chi-square value 3.457<sup>a</sup>  
(Significance value 0.484**)  
 Chi-square value 22.730<sup>a</sup>  
(Significance value 0.000**)  

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<td>200(81.9%)</td>
<td>44(18.1%)</td>
<td>156(63.9%)</td>
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Chi-square value 0.829<sup>a</sup>  
(Significance value 0.362**)  
 Chi-square value 0.006<sup>a</sup>  
(Significance value 0.940**)  
 Chi-square value 1.017<sup>a</sup>  
(Significance value 0.313**)  

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<tr>
<td>Total</td>
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<td>167(68.5%)</td>
<td>200(81.9%)</td>
<td>44(18.1%)</td>
<td>156(63.9%)</td>
<td>88(36.1%)</td>
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Chi-square value 6.349<sup>a</sup>  
(Significance value 0.096**)  
 Chi-square value 0.347<sup>a</sup>  
(Significance value 0.951**)  
 Chi-square value 18.483<sup>a</sup>  
(Significance value 0.000**)  

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<td>9</td>
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</table>

Source: Authors’ Field Survey, 2018
Climate Variability and its Implication on Urban Food Production

This study conceptualizes food production as a crop entity and the process of production of the food/crop or animals been reared, produced or planted by urban farmers in Ibadan. In Odewumi et al. (2013) and Wahab and Popoola (2018), the effects of climate variability on urban agriculture were extensively identified and the adaptation techniques adopted by farmers discussed. The processes involved in food production were not identified and the effect on the food produced not extensively identified. This study avers that urban food production is shaped by the varying climate.

Based on reconnaissance survey, on-farm field observation and interview with farmers, this study identifies that food production in urban-Ibadan includes vegetable and legume farming, food crop such as maize

| #16000-#25000 | 20 | 40 | 51 | 9 | 36 | 24 |
| #26000-#35000 | 19 | 43 | 51 | 11 | 43 | 19 |
| #36000-#45000 | 4 | 17 | 19 | 2 | 13 | 8 |
| Above #45000 | 21 | 30 | 41 | 10 | 34 | 17 |
| Total | 77(31.5%) | 167(68.5%) | 200(81.9%) | 44(18.1%) | 156(63.9%) | 88(36.1%) |

Chi-square value 6.400a
(Significance value 0.269**)

Chi-square value 2.798a
(Significance value 0.731**)

Chi-square value 3.025a
(Significance value 0.696**)

Plate 1: On-farm marketing of vegetable at Eleyele Floodplain area of Ibadan

Source: Authors’ Field Survey, 2018
farming and animal rearing (chicken, goats and pigs been the most common). Vegetable and legume farming continue to be main type of farming activity practiced within the city centre along the floodplain and open spaces (see Plate 1).

The study also identifies based on picture evidence (Plate 2 and 3) the use of herbicides and irrigation of plants with waste water from adjoining wetland or canal close to the farm locations.

![Plate 2: Woman trying to fetch water from Dirty canal for irrigation](image1)

**Source:** Authors’ Field Survey, 2018

Interview with the woman reveal that urban farmers have resulted into the use of such dirty, unhealthy water for irrigation of their farm crop as a result of short raining season and late rain. When interviewed as to why such dirty water was used for irrigation she said this:

“...The rain hasn’t been falling well, my vegetables are dying off, I also need money to feed my family. I just need to make use of any water to irrigate it so it can grow and be harvested for sale …”

Based on this, with the pictorial representation of the on-farm sale of legumes as presented in Plate 1 and the extensive use of herbicide to control pest and yield in Plate 3, the study argues that the crop produced might be considered harmful to human health is not properly prepare when about to be ate. When asked of the process of preparing the legumes if washed before sale, a farmer has this to say:

“...That is not my duty, mine is to plant and sell, where will I even get the water to be washing it before selling? I think the people should know that they need to boil and prepare well before eating …”

Further questioning towards the consideration of the use of organic fertilizer as against chemical fertilizer, the farmer responded that the air pollution accompanying organic fertilizer and also the slow rate of controlling stunted growth is an issue. A farmer in his own word said this:

“...The odour from the poultry waste when used for manuring is high and community people complain sometimes and even some vegetable buyers claim the can still smell it… but for the chemical fertilizer, no complain and not odour and likewise fast to control pest and disease…”
While the response of chemical fertilizer is undoubted, the effect on the soil and water body in adjoining area needs to be investigated. The study have identified that the extreme climatic condition will affects crop yield (see Plate 4), the human hazard exposures of this food produced are also needed to be further investigated as the effects of the herbicides on the quality of the farm produce and effects on human health investigated.

Plate 4: Drying up cucumber plant owing to high temperature
Source: Authors’ Field Survey, 2018

Interview also reveal that while core and traditional settlements and societies continue to practice animal (goat, chicken, snail, rabbit) farming at subsistence and household level, the future of meeting urban meat demand continues to be limited considering the rate of urbanization into peri-urban space. For example in Nigeria, the climate change driven crisis between Fulani herdsmen and crop farmers continues to subject pressure and shock on animal farming and nomadic lifestyle leading to induced protein scarcity. Lasisi et al. (2017) reported that even the peri-urban areas (areas where animal farming are unconsciously relocated to) are experiencing land pressure owing to urban sprawl. Urban animal farming needs to be well advocated for, especially in LGAs that are rocky and has limited land for crop farming.

Conclusion and Recommendations
For continued human existence, food is a necessity. One of the ways to meet up with the increasing demand for food in an urban settlement is through urban agriculture. Urban farmers are faced with varieties of difficulty of which climate variability is one. Farmers were aware of their environment and climatic influence on agriculture in the past owing to the stability in climatic conditions and based on the indigenous agricultural knowledge systems. This study has revealed the awareness knowledge of urban farmers of climate variability in Ibadan. The farmers have perceived increase in temperature, rainfall and humidity based on their years of farming experiences, traditional farming practices and informations from radio/television,
extension workers and interaction with farmer’s cooperatives. The study further concludes that the knowledge of the urban farmers about climate variability will guide their response to the variations including the decision on whether to increase or decrease their farming activities. As environmental decisions are dictated by peoples’ perception of it. Thus, updated correct perception as regard climate variability will bring about proper response to the climatic issues. Based on this assertion and identified problems, this study suggests the following:

The urban farmers should be provided with both formal and informal educational training, retraining and extension services so as to broaden their knowledge on relevant aspects of climate variability and change and its relationship to urban agriculture. This is a necessary investment to promote sustainable food security. Also, massive awareness campaigns and community sensitization should be put in place in order to get the farmers informed on the reality of climate variability, its causes and serious consequences on food production. Farmers must be routinely sensitized about the implications of certain activities such as over-grazing, deforestation, and bush burning and be discouraged from further practice. Composting of agricultural waste and afforestation should be encouraged as a way of mitigating the occurrence of climate variability and weather extremes. Nonetheless, the effect of the fertilizer used on food crops and adjoining environment should be examined.

Additional extension personnel who are knowledgeable about climate change and variability should be provided by government to increase the extension-farmer ratio and also make the extension services more accessible to farmers. The Department of Agriculture in all the local governments in Ibadan should be adequately staffed and equipped with transportation and communication facilities to enable them provide adequate outreach/extension services to farmers within their areas of jurisdiction.

The role of indigenous knowledge in weather forecast cannot be totally neglected. Thus, collaboration between the scientist and indigenous farmer as regards weather related information is imperative as this provide a dual way of gathering data. Therefore, the people’s indigenous knowledge of weather forecast and farming practices should be encouraged by extension agencies/workers for possible integration with modern techniques to enhance improved farming in local communities in Ibadan and Nigeria in general. Ibadan South-east Local government, which is fully built-up, should consult with the Bureau of Physical Planning and Urban Development to acquire land in any of the six rural local government areas in Ibadan and allocate to its farmers to enable them continue to farm and enhance food production.

This study also identifies the need for improved crop production that reduces the possibility of consuming herbicide and also waste through the irrigation of plant with water from canals along the floodplain area. Investigation on the effect of some selected chemical used by urban farmers to enhance crop yield on human health needs to be established likewise.
REFERENCE


IPCC. 2001. Climate change: the scientific basis contribution of the working group 1 to the third assessment report of the IPCC. Cambridge, UK: Cambridge university press.


Occupational Health Hazards of Women Farmers in Ankpa Local Government Area of Kogi State - Nigeria

Venatus V. Kakwagh¹

Abstract: This study was carried out to determine the occupational health hazards that women farmers face in Nigeria with a particular focus on Ankap Local government area of kogi State – Nigeria. The study has shown that women are very important and active participants in the agricultural sector in Nigeria. The study has however, opined that in spite of the crucial role women play in agricultural production, policies in Nigeria have not been formulated to address the hazards they face in performing their agricultural activities. Due to this neglect, women have continued to face different levels of hazards with significant effect on their lives and consequently on agricultural productivity.

Key words: Occupation; Health hazards; Women; farmers; Ankpa LGA

Introduction

Agriculture ranks among the most hazardous occupations in the world (National Institute for Occupational Health, 2013). The physical demand of the farm work often exposes the agricultural worker to very high risks. In spite of the risks, in agrarian economies, the agricultural sector plays very important roles. It is the engine overall economic growth. In Nigeria, it is the major employer of labour and contributes to households’ income generation and food security. As one of the oldest occupations in the world, agriculture serves as one of the major occupations of rural dwellers especially women.

In Nigeria, like many other African countries, women play very important roles as producers and providers of food. Most of the women are rural dwellers and play multi-faceted roles in the rural sector as small scale farmers, income earners, and family care takers. They are involved in the cultivation of food and cash crops. In fact, much of the agricultural activities are carried out by women. Women are therefore prominent economic actors in land related activities with a major stake in crop and livestock husbandry, crop preservation, processing and marketing, and food preparation for both domestic consumption and sale. Indeed, women are a critical link in achieving household food security. These crucial tasks often expose

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women to health problems. In fact, the farming environment and the conditions under which women operate render women vulnerable to occupational health hazards (WHO, 2015).

In spite of the obvious risks women farmers (and indeed farmers generally) in Nigeria are exposed to and the crucial role they play in agriculture, most of the policies are not formulated to tackle these risks. For example, policies such as Gender Policy in Nigeria (2016) and the Agriculture Promotion Policy (2016-2020) do not have any provision concerning the health of farmers. This study therefore seeks to analyze the occupational health hazards of women farmers in Ankpa local government area of Kogi state –Nigeria.

Conceptual clarification

All farmers, regardless of sex, are exposed to occupational hazards. Occupational hazard refers to any source of potential damage, harm or adverse health effects on something or someone under certain conditions at work. The International Labour Organization, (ILO, 2000) regards occupational hazard as any working condition that can lead to illness or death. The organization further affirms that health status in rural areas is lower than in urban centres in both developed and developing countries. Asuzu (1994) viewed occupational health as the sum total of all activities and programmes engaged upon for attaining and maintaining the highest level of health and safety for all people in whatever work they are engaging. According to Cole (2006), Park (2011), and Idio and Adejare (2013), occupational hazard in agricultural sector could be classified into seven: (i) climate: dehydration, heat cramps, heat exhaustion, heat stroke, and skin cancer; (ii) Snakes and insects: injurious bites and stings; (iii) Tools and farm equipment: Injuries, cuts, and hearing impairment; (iv) Physical labour: musculoskeletal disorders, e.g. pain and fatigue; (v) Pesticides: poisonings, neurotoxicity, reproductive effects, and cancer; (vi) Dusts, fumes, gases, particulates: Irritation, respiratory tract, allergic reactions, respiratory diseases such as asthma, chronic obstructive pulmonary disease, and hypersensitivity pneumonitis, and (vii) Biological agents and vectors of disease: Skin diseases, fungal infections, allergic reactions, malaria, schistosomiasis, sleeping sickness, leishmaniasis, ascariasis, and hookworm.

A plethora of literature have revealed the linkages between farmers’ health and their efficiency. For example, Egbetokun, Ajjiola, Omonona, and Omidele, (2012) found that one percent improvement in the health condition of the farmers will increase efficiency by 21 percent. According to Hawkes and Ruel (2006), poor health of farmers reduces their income, efficiency, and productivity.

Adedeji, Olapade-Ogunwole, Farayola, and Adejumo . (2011), Olowogbon (2011) and Idio and Adejare (2013) reported that rural farmers in Nigeria are exposed to occupational hazards of various types. For instance, study carried out by Egharebva and Iweze, (2004) on women farmers in Edo state, Nigeria, revealed the health problems experienced by the women as muscular fatigues, fever, dermatitis, migraines, respiratory diseases, impaired vision and hearing as a result of exposure to extreme temperature, use of chemicals, fertilizers, dusts and insect bites.
Study area

Ankpa local government area is one of the 21 local government areas that make up Kogi state. Its headquarters is at Ankpa on the A233 highway in the west of the area at 7°22′14″N 7°37′31″E. The local government area has an area of 1,200 km² and a population of 267,353 (NPC 2006) and a 2016 projected population of 359,300 (kogi state- Population Statistics, charts, map and location 2018). It shares boundary with Omala local government of Kogi state in the North, Olamaboro local government area of Kogi state in the south, Dekina local government area of Kogi state in the east and Apa and Otukpo local government areas of Benue state in the west.

The major ethnic group in the local government area is Igala though there are other ethnic groups like Idoma and Igbo. Like the entire Igala race, the people are ethnically uniform, have a fairly uniform farming system with fairly uniform land tenure arrangements. The people are predominantly farmers and have a fairly extensive arable land with a suitable climate for the production of various crops. The people typically engage in the production of cash crops such as rice, beans, groundnuts, maize as well as subsistence crops like yams, cassava, and guinea-corn. Bush fallow and mixed cropping are the dominant systems. The local government area has the advantage of an all-round capacity to produce virtually all the major food crops. All crop farmers raise either or a combination of sheep, goats, and poultry to supplement income from crop farming. The system of animal husbandry by farmers is mostly free range though some practice semi-intensive method. Although farming is the major occupation of the people, a good percentage of the people engage in trading, teaching or civil service work.

Methodology

Ankpa local government area is one of the 21 local government areas that make up Kogi state. Its headquarters is at Ankpa on the A233 highway in the west of the area at 7°22′14″N 7°37′31″E. The local government area has an area of 1,200 km² and a population of 267,353 (NPC 2006) and a 2016 projected population of 359,300 (kogi state- Population Statistics, charts, map and location 2018).

The local government area is comprised of ten districts namely; Ankpa, Enjema, Ojoku, Udama, and Adamawo. Others include Emekutu, Okaba, Ikah, Adowo and Awo. Six of these council wards- Ojoku, Emekutu, Awo, Enjema, Udama and Adamawo — were purposively selected for study. The rationale for the selection of these districts was informed by their geographical spread.

In each of the districts selected, two villages were randomly selected and surveyed. From each of the randomly selected villages, 10 respondents were randomly selected and interviewed. Hence, a total of 120 respondents were interviewed.

Data were collected through self-administered structured questionnaire and focus group discussion sessions. The structured questionnaire provided the opportunity to collect information on the age, level of
education, type of family techniques used for farming. To complement information obtained through questionnaire, focus group discussion sessions were held with the women farmers of the selected districts across generation. Two focus group discussion sessions were held with women who were still giving birth and those that had stopped giving birth each. The information gathered through the focus group discussion sessions provided the opportunity to understand the occupational hazards women farmers face especially the parts of the body that are most affected.

Results and discussion

The demographic s of the respondents is presented in table 1.

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Table 1 presents the demographics of respondents. A careful examination of the table shows that a good percentage of the respondents were within the active age range. For example, 47 (39.17%) were within the age bracket of 18-34; 52 (43.33%) were within the age bracket of 35-54. Only 21 (17.50%) of the respondents were within 55-70 years bracket. The mean age stands at 40 years. This mean age shows that most of the farmers were adults and therefore old enough to appreciate hazards associated with farming tasks.

With regards to marital status, 73 (60.83%) of the respondents were married while 23 (19.17%) were widows. Only 11 (9.17%) were single. The active involvement of both the married, single and widows in agricultural production in the study area underscores the importance of agriculture as a source of income. Moreover, all the married and widowed have family responsibilities. These responsibilities require the willingness of the people to engage in productive activities so as to meet family demands.

In terms of level of education, the majority of the respondents (73 or 60.83%) had no formal education while 30 (25.00%) had primary school education. Only 17 (24.17%) had secondary education and above. On the whole, more than three quarters of the respondents were illiterate or semi-illiterate. This level of illiteracy calls for special attention to be paid to their health needs so as to enhance their productivity.

With regards to family type, majority of the respondents (91 or 75.83%) were from polygamous families while 27 (22.50) were from nuclear families. Only 2 (1.67%) were single parents. This disparity is due to the fact that the local government is predominantly a Muslim community and there is liberal understanding about marriage.
In terms of household size, 51 (42.50%) had up to 4-6 household members, 21 (17.50%) had 1-3 members, 27 (22.50%) had between 7-9 members while 21 (17.50%) had from 10 and above members. This composition clearly shows that members of the study area have large family sizes. The active involvement of the people into agricultural production could therefore be the need to cater for the food and financial needs of the large number of persons per household. It should also be noted that with this large household size, many of the farmers may be unable to feed their families properly and at the same time save so as to expand their farms sizes. However, the largeness of families suggests availability of family labour on the farms.

With regards to farm size, the table shows that most of the farmers were small scale producers as they cultivated less than 10 hectares. For example, 31 (25.83%) operated 4-6 ha; 67 (55.83%) operated 1-3 ha while 22 (18.33%) operated 7-9 ha. All these figures fall far short of the 10ha regarded by the UN and FAO for commercial farming. It was observed that almost all the farms were based on mixed cropping.

In terms of farming experience, 29 (24.17%) had farming experience of between 11-15 years; 67 (55.83%) had farming experience of over 16 years. Only 7 (5.83%) had farming experience of 5 years and below. This shows that most of the farmers had long experience of farming. It therefore means that with their long years of experience, they could make good assessment on hazards associated with farming. It should be noted that none of the farmers indicated that they belonged to any cooperative society. This suggests the lack of knowledge about the benefits of cooperative societies. However, many of the farmers engaged in weekly or monthly contributions so as to enhance their savings.

**Techniques used for performing farm activities**

It should be borne in mind that like most farmers in Nigeria, the respondents practice rain-fed agriculture and engage in mixed cropping. They plant several crops - both cash and subsistence - at the same time. A survey of the study area revealed that no farmer had any sole-crop field.

In terms of farm activities, all the respondents reported that they perform farm activities such as land preparation, seed treatment, sowing, fertilizer application, and weeding. Other activities include harvesting, threshing, processing and marketing of the agricultural produce. The study observed that all these activities are performed manually using hoes, cutlasses and knives. The use of hoe, cutlass and knives by the women farmers working in stooping positions exposes them to body aches such as back and waist pains. This position is in line with that taken by Amodu and colleagues (2017) in their study of female farmers in North Eastern Nigeria. The study also observed that all the farmers operated small-sized farms. In one of the focus group discussion sessions, a 46 year old woman and a mother of 6 children had this to say:

*Our primary purpose of production is to feed our families. We do not even own large parcels of land nor do we have enough money to invest in the use of machines like tractors, threshers, combined harvesters, etc.*
With regards to the problems they face, all the women farmers had different though similar lamentations to make. For example, a heavily pregnant 26 year old woman had this to say;

*During land preparation, fertilizer application and weeding, we sweat profusely; our feet, faces and hair are soiled. We also experience different forms of bites such as snake, scorpion and insects. During threshing, dust stick to our bodies and eyes thus making us to experience eye and skin irritation/itching.*

Another 32 year old farmer lamented thus;

*In the process of carrying out our farm activities, we are exposed to several problems. For instance, in processing gari, we are exposed to heat, smoke and burns. The prolonged exposure to smoke makes our eyes to be swollen. Also, during application of fertilizers, herbicides and pesticides, we experience chemical hazards either through inhalation, ingestion or dermal absorption and this has often had adverse effect on our pregnant members.*

Respondents were in agreement that carrying heavy agricultural products to-and-from the farm exposes them to serious back and chest pains. Also, they experience long hours of exposure to air pollution and job overload.

**Assessment of occupational health hazards based on age**

This was assessed at three levels namely; low, moderate and high.

<table>
<thead>
<tr>
<th>Level</th>
<th>18-34</th>
<th>35-54</th>
<th>55-70</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low</td>
<td>7 (14.89%)</td>
<td>12 (23.08%)</td>
<td>=</td>
<td>19 (15.83%)</td>
</tr>
<tr>
<td>Moderate</td>
<td>11 (23.40%)</td>
<td>17 (32.69%)</td>
<td>9 (42.86%)</td>
<td>37 (30.33%)</td>
</tr>
<tr>
<td>High</td>
<td>29 (61.70%)</td>
<td>23 (44.23%)</td>
<td>12 (57.14%)</td>
<td>64 (53.33%)</td>
</tr>
<tr>
<td>Total</td>
<td>47</td>
<td>52</td>
<td>21</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Field survey 2019

Table 2 shows that 29 (61.70%) of the 47 respondents between 18-34 years reported high incidence of hazards while 23 (44.23%) of the 52 respondents between 35-54 years reported high incidence of hazards. Thirty seven (30.33%) of the respondents reported moderate pains while 19 (15.83%) reported low pains. Within the age bracket of 55-70 no respondent reported low level of pains. This could be because all the respondents within the age category are already advanced in age and therefore highly vulnerable to any form of stressful activity. On the whole, majority of the respondents (64 or 53.33%) reported high incidence of hazards.

With regards to the part(s) of the body most affected, table 3 gives a graphic explanation.
Table 3: Body discomfort according to age

<table>
<thead>
<tr>
<th>Parts of body</th>
<th>18-34</th>
<th>35-54</th>
<th>55-70</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Neck</td>
<td>7</td>
<td>2</td>
<td>1</td>
<td>10 (8.33%)</td>
</tr>
<tr>
<td>Shoulders</td>
<td>3</td>
<td>3</td>
<td>2</td>
<td>8 (6.67%)</td>
</tr>
<tr>
<td>Arms</td>
<td>4</td>
<td>2</td>
<td>1</td>
<td>7 (5.83)</td>
</tr>
<tr>
<td>Back</td>
<td>1</td>
<td>5</td>
<td>2</td>
<td>8 (6.67%)</td>
</tr>
<tr>
<td>Waist</td>
<td>19</td>
<td>27</td>
<td>7</td>
<td>53 (44.17%)</td>
</tr>
<tr>
<td>Thighs</td>
<td>11</td>
<td>4</td>
<td>5</td>
<td>20 (16.67%)</td>
</tr>
<tr>
<td>Legs</td>
<td>2</td>
<td>9</td>
<td>3</td>
<td>14 (11.66%)</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>47</td>
<td>52</td>
<td>21</td>
<td>120</td>
</tr>
</tbody>
</table>

Source: Field survey 2019

Table 3 shows that of the 47 respondents, who were between 18-34 years, 19 and 11 reported much pains in the waist and thighs respectively while 27 and 9 who were between 35-54 reported much pains in the waist and legs respectively. On the whole, all the age groups reported much pains in the waist, highs and legs. This could be attributed to the long hours of sitting and bending due to the nature of the farming activities. This position is in agreement with the position taken by Jeyenatnam (1992) over two decades ago in his study of Kampala in Uganda.

Treatment options

A careful look at table 3 shows that 87 of the respondents representing 72.50% identified pains in the waist, thighs and legs as constituting the majority of pains they experienced while 33 respondents representing 27.5% identified pains in the neck, shoulders, arms and back as less serious pains. Regardless of which part of the body is most affected, all the women farmers were in a common agreement that treatment options of any given ailment is contingent on the type of ailment, availability of money and the severity of the sickness. For example, 93 of the women farmers representing 77.50% reported that they usually rely on traditional medications by visiting herbal homes or traditional healers because of cultural beliefs. Thus, the reason for this is that the people believe that many illnesses are caused by witches and wizards and that the victim must first be taken to fortune tellers for consultation and healing process. The victim must visit a powerful shrine where the case is pleaded with the gods through a powerful diviner. It is then that the causal person could be identified and treatment instituted. But it should be noted that this shrine consultation often delays appropriate treatment thus resulting to serious consequences (Kakwagh, 2018).

Nineteen of the women farmers representing 15.83% said they go for self-medications through the use of herbs and patent medicine dealers because of poverty. But it should be understood that the dealers of patent medicine stores are not properly trained in the art of drug administration. Moreover, the drugs peddled by these patent medicine vendors are often fake and adulterated therefore, patronizing them could have disastrous implications (Kakwagh).
Only 8 or 6.67% said they visit orthodox health care facilities for treatment. This group of women farmers are those who have had secondary and tertiary levels of education. Even at that, this group of women farmers who visit orthodox medical establishments, though relatively educated, said their behaviour is always influenced by certain factors such as affordability of the cost, quality of service and the attitude of staff of the medical institutions. This clearly implies that patronage of orthodox medical care is contingent on a combination of these factors.

Conclusion and recommendations

The study has shown that women are very active participants in the agricultural sector in Nigeria. The study has however, observed that in spite of their crucial role, policies in Nigeria have not been formulated to address the hazards they face in performing their agricultural activities. Due to this neglect, women have continued to face different levels of hazards with significant effect on their lives and consequently on agricultural productivity. Since women are very important actors in agricultural production in Nigeria, and their poor health impacts negatively on agricultural productivity, there should be improvement in rural social services. This is to reduce the negative effect of poor health on rural productivity. The health of rural women should be integrated into a rural development policy especially the primary health care structure. Emphasis should be particularly placed on environmental protective measures, health promotion and wellbeing measures and agricultural safety. To this regard, there should be collaboration between the Federal Ministry of Agriculture, Federal Ministry of Health and other relevant agencies of government.

Also, researches should be conducted so as to design simple and affordable hand tools such as planters, threshers, for farmers so as to reduce the drudgery of farm work. Farmers should be educated through enlightenment campaigns with active participation by agricultural extension workers on how to avoid the dangers of the chemicals especially herbicides and pesticides they apply to their crops. Women (and farmers generally) on their part should always endeavour to wear protective clothing.

References


National Institute for Occupational Health (2013), Agricultural Safety, official home page of Center for Disease Control and Prevention. www.ede.gov/noish/topics
