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12 of Papers Innovations

highlights

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From the Chief Author's Desk

We see a drastic momentum everywhere in all fields now a day. Which in turns, say a lot to everyone to excel with all possible way. The need of the hour is to pick the right key at the right time with all extras. Citing the computer versions, any automobile models, infrastructures, etc. It is not the result of any preplanning but the implementations of planning.

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Intentions are very clear to do best in all possible way with all care.

Dr. R. K. Dixit

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Yar'adua 7-Point Agenda, the Mdgs and Sustainable Development in Nigeria

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Abstract-African leaders toed the initiative of their world counterparts towards the close of the last millennium aimed at addressing issues bordering on poverty and its effects in the world and the opportunity provided by the Millennium Development Goals (MDGs) for solving these problems. This focus formed the rallying cry of global partnership and the cornerstone of international and regional development policy. As soon as he was sworn into office as the president of the Federal Republic of Nigeria, Umaru Musa Yar'Adua declared his administration's 7-point agenda, aimed at keying into the objectives of the MDGs. This paper among others, considers the full import of the MDGs. It proceeds to point out the critical factors that constitute the Yar'Adua 7-point agenda. Some of the questions raised in the body of the paper include: if pursued with the vigour it deserves, is this policy thrust likely to herald sustainable development in Nigeria by the envisioned 2020? Does the Yar'Adua administration have the capacity to handle these seven points at a time, or should it have prioritized these items, by taking on them one at a time (incrementally)? These questions are necessary because they raise fundamental issues concerning the declared policy focus of the Yar'Adua administration and the path it has charted for Nigeria. At the end, some empirical conclusions were made, with regard to the workability of this policy thrust. Nigeria is unequivocally in need of a development kick-starter. Is the 7-point agenda going to be the way out of these problems?

I. INTRODUCTION

Poverty, hunger, discrimination against women, lack of education opportunities for women, infant and maternal mortality, among other ravaging diseases and social problems has become the lots of many countries of this world. The difference though is that while some continents (indeed countries) have advanced in their efforts at solving some of these teething problems once and for all, some others seem not to have woken up to the reality of the problems on ground. These problems though have rendered citizens extremely poor and nations, crisis prone. In the committee of continents, Africa appears to be the weeping baby when statistics are considered, with regard to how continents have put measures on ground towards the achievement of better lives for their citizens, through the instrumentalities of the MDGs. Africa has for a long time, been faced with these problems mentioned above; with Nigeria's case always topping the chart. Igbuzor (2006) has rightly observed that: The problem of development has occupied the attention of scholars, activists and politicians, development workers, local and international organizations for many years with an increased tempo in the last decade.

Even though there are different perspectives to development, there is a general consensus that development will lead to good change manifested in increased capacity of people to have control over material assets, intellectual resources and ideology; and obtain physical necessities of life (food, clothing and shelter), employment, equality, participation in government, political and economic independence, adequate education, gender equality, sustainable development and peace (p.1). These factors indeed, form the crux of the focus of this paper which attempts to assess the connection between Yar'Adua's seven-point agenda and the MDGs, and how these are likely to translate into sustainable development for Nigeria. World economic statistics indicate the fact that many countries have remained underdeveloped for decades, with, in the words of Igbuzor (2006) "precarious development indices" (p.1). To demonstrate how badly the situation has impacted upon nations of the world, analysts have variously posted frightening percentage figures which show a wall of difference between the very poor nations and people and their very rich counterparts. For example, Igbuzor (2006) has again demonstrated in his work that: More than 1.2 billion people or about 20 percent of world population live or survive on less than (sic) US \$1 per day. Wealth is concentrated in the hand (sic) of a few people. The UNDP in its 1998 report documented that the three richest people in the world have assets that exceed the combined Gross Domestic Product (GDP) of the 48 least developed countries. Similarly, the 1000 richest people in the world have personal wealth greater than 500 million people in the least developed countries (p.1). The last section of the quotation above should be of interest to Nigerian leaders. As a matter of fact, the last statistics released by the WHO (2008) about life expectancy in the world at birth, shows that the average life expectancy for Nigeria is 46 years (46 for males and 48 for females). This is a consequence of the cultural, social and economic realities of the country. Most literature on development trends in the African Continent of the 1970s has it that Nigeria was one of the richest 50 in the world. This record was made possible by the discovery, exploitation and export of crude oil in commercial quantity. This trade in oil fetched for the nation, millions of US Dollars. Nigeria became so rich that, for want of development projects to embark upon in its territory, began to look for African countries in deep economic crisis to bail out. However, two decades after the 1970s (Nigeria's oil boom years), how did the country fare and what became its position in world economic rating? By the 1990s, records have it that Nigeria had retrogressed to become a leading member of the 25th poorest countries of the world at the

threshold of the twenty first century (see Igbuzor, 2006, et al). By 1999, when the Fourth Republic government was sworn into office, rough statistics had it that Nigeria's external debt profile stood at about US \$34 billion. This was exclusive of the internal debts which was in the region of trillion of Naira, mostly owed local contractors. Ironically though, Nigeria has for a while maintained the record of the sixth largest exporter of oil among the OPEC members, it equally houses some of the poorest people in the world. Igbuzor (2006) like a number of other authors has posted economic indicators about Nigeria, which shows how deep the country has gone into economic crisis. He has observed among others that the incidence of poverty using the rate of US \$1 per day increased from 28.1 percent in 1980 to 46.3 percent in 1985 and declined to 42.7 percent in 1992 but increased again to 65.6 in 1992. The incident increased to 69.2 percent in 1997. If the rate of US \$2 per day is used to measure the poverty level, the percentage of those living below poverty line will jump to 90.8 percent. Nigeria fares very poorly in all development indices (p.1). Nigeria is a country; though oil producing, where the average annual percentage growth between 1990 and 2000 was put at a meager 2.4. Countries like Ghana and Egypt on the other hand however, post 4.3 and 4.6 percentage respectively.

I. THE MILLENNIUM DEVELOPMENT GOALS (MDGs)

This paper has observed above that the Millennium Development Goals were thought out as a result of the consensus reached by world leaders on the need to jointly tackle the problems caused by poverty, which was ravaging different parts of the globe. The Economic Commission for Africa, Progress Report (2005) had aptly observed that: The urgent need to address poverty around the world and the opportunity provided by the Millennium Development Goals (MDGs) have made them the rallying cry of a global partnership and the cornerstone of international and development policy. For the first time in history, a diverse range of players across the globe has agreed on a common platform of priorities for addressing the many faces of poverty, hunger, joblessness, diseases, lack of shelter, gender inequality and environmental decline (p. 1). The MDGs thus refer to the eight major goals identified by these international leaders, which if pursued with vigour, is likely to lead to better lives for the people of the world. These eight goals have been identified as: reducing extreme poverty and hunger, achieving universal primary education, promoting gender equality and women empowerment, reducing child mortality rates, improving maternal health, fighting disease epidemics such as HIV/AIDS, malaria and others, ensuring environmental sustainability and developing a global partnership for development. As at the year 2000, these international goals had received the consent of 192 United Nations member states and at least 23 international organizations. The leaders set 2015 as the target year for the maximum realization of these goals (Millennium Development Goals-Wikipedia). The MDGs are indeed measurable targets attached to a timeframe aimed at making a positive difference in the lives of billions of people all over the world.

Shortly after its declaration, most African leaders (like Nigeria's Olusegun Obasanjo) adopted the MDGs as a tool within their wider development planning framework, to, according to the ECA Report (2005), end the tragic conditions in which so many Africans are deprived of their basic human rights, such as health, education, shelter and security. By making the Goals work as tools for coordinating development policy, within broader development priorities, African leaders can tackle extreme poverty that is hobbling their people, make their countries more productive and reduce the risk of conflict (p. 1). Subsequently, Nigeria's former president, Olusegun Obasanjo, in conjunction with other African leaders came up with the idea of the New Economic Partnership for Africa's Development (NEPAD), which incorporated the major tenets of the MDGs into its framework. At Nigeria's national level, this policy thrust led to the establishment of National Economic Empowerment Strategy (NEEDS) and State Economic Empowerment Strategy (SEEDS) by the federal and state governments respectively. The question though on the lips of many Nigerians after the life span of that administration (1999-2007) is, how many Nigerians had their poverty alleviated? The Yar'Adua administration recently marked its second year in office and with its avowed declaration to make Nigeria become at least the twentieth most prosperous nation of the world, come the year 2020 (vision 20:2020), it became necessary to assess (analyze) the level of success so far recorded in this regard. This analysis is indeed necessary because, among other reasons, Africa seems not to have fared well since the declaration and acceptance of the MDGs, when put in the same scale with other continents. Moreover, the ECA Report (2005) had observed: Despite significant progress by some of its subregions and countries, Africa fared worst among the world's regions. It saw the slowest progress overall and suffered reverses in some crucial areas. In sub-Saharan Africa (SSA), the number of people living in extreme poverty (on US \$ 1 a day or less) rose from 217 million in 1990 to 290 million in 2000, the majority of whom are women. Adult life expectancy is reckoned to have declined from a little over 50 years to 46 years. Based on the trends of the past 15 years, SSA will not achieve the MDGs on time (p. 1). This paper, on the basis of the ECA Report (2005) cited above, chooses to state hypothetically, that based on the very slow implementation style of the Yar'Adua administration, Nigeria is not likely to achieve the declared goals by 2020. It states further that there is an interconnecting relationship between governments political will to implement what has been stated and the achievement of sustainable development for the country.

II. PRESIDENT YAR'ADUA's SEVEN-POINT AGENDA

What then constitutes Yar'Adua's seven-point agenda? The major policy thrust of this administration, otherwise referred to as the 7-point agenda are:

1. Critical Infrastructure: This would involve paying attention to adequate power supply to facilitate industrialization. Development of Rail, Road, Air

and Water transportation to facilitate movement of persons, goods and services.

2. Niger Delta: This would involve complete overhaul of the region to ensure provision of physical infrastructure and empowerment of the people.
3. Food Security: Through this vision, the administration has declared interest in enhancing agricultural and water resources to ensure adequate food supply for local consumption and export.
4. Human Capital Development: This would involve reform of education sector to improve skills and enhance standards.
5. Land Tenure and Home Ownership: Review of the Land use laws to facilitate proper use of the Nation's land assets for socio-economic development; and citizens' access to mortgage facilities.
6. National Security and Intelligence: Through this strategy, the administration intends to give adequate attention to the provision of security to lives and property.
7. Wealth Creation: This aspect would be used to initiate the process of diversification of the nation's revenue base and increased production to provide jobs.

(Source: Federal Ministry of Information and Communications, 2007).

How realizable is this policy thrust by the year 2020? This question will be answered in the body of this work, using the administration's strides so far recorded and considering the statistics posted by the human development index.

To adequately attend to the question raised above, and arrive at some conclusions, this study chooses to adopt a theoretical framework and critically assess these seven points methodically, as much as possible, one after the other.

III. THERORETICAL FRAMEWORK

This paper will proceed by adopting the development theory as it's theoretical frame of reference. This theory is deemed necessary because the paper is primarily focusing on how the Yar'Adua administration intends to launch Nigeria into a phase of sustainable development. It should be made clear from this point that the development theory showcases two major schools of thought, which are referred to as the Liberal and Marxists perspectives. The earlier analyse development from the point of view of economic indicators. Development to these scholars, is measured from the perspective of percentage growth in GNP recorded by a country over a period of time. In this vein, Meier (1989) describes development as "the maximization of the growth of the GDP through capital accumulation and industrialization" (p.6). To Todaro (1979), development meansthe capacity of a national economy, whose initial economic condition has been more or less static to generate and sustain an annual increase in its Gross National Product (GNP) at rates of perhaps 5 to 7 percent or more (p.95).

The Marxist school of thought however, largely disagrees with the explanations of the Liberal scholars who only attempt to equate development with the recorded level of GDP attained by a country. This has been attacked as not only faulty but misleading. Scholars with this Marxist worldview have argued that the entire talk about development should revolve around the welfare of the citizens. They observe further that rather than view development as an abstract economic category, it should be looked at from a multi-dimensional perspective. They argue that any discussion on development should focus squarely on man and his well being. This radical view has been largely summed up in these words of Rodney:Development in human society is a many-sided process. At the level of individual, it implies increased skill and capacity, greater freedom, creativity, self-discipline, responsibility and material well being At the level of social groups, it implies an increasing capacity to regulate both internal and external relations. In the past development has always meant the increase in the ability to guard the independence of the social group (p.9).It is this perspective of development that this paper intends to borrow a leaf from in attempting to assess the prospects of a sustained development for Nigeria by the year 2020, as declared by the Yar'Adua administration.

IV. AN ASSESSMENT OF THE SEVEN-POINT AGENDA (2007-2009)

Critical Infrastructure: The Yar'Adua administration has as its target, the provision of adequate electricity power to facilitate industrialization. In line with this objective is the development of rail, road, and air and water transportation to facilitate movement of persons, goods and services. Indeed, the issue of adequate power supply has been in the fore in Nigeria's politico-economic discourse for some time. Inadequate public power supply has impacted negatively upon hitherto thriving indigenous industries, factories and companies, thus leading to their winding up in large numbers. When the Yar'Adua administration came up with the idea of improving the power generation and distribution capacity, Nigerians looked forward to a better future. Close to the end of this administration's second year in office however, the power situation to a large extent has not recorded significant improvement, compared to the pre-2007 era. At least, towards the end of the president Obasanjo administration (May 29, 2007), overall power generation was put at more than 3,200 megawatts, MW. About the power generation of the country as at 2009, however, the cover story of the Tell Magazine (December 8, 2008) observes that: This is not the best of times for Nigerians whose businesses depend on electricity. The nation's overall power generation has come down drastically...it is now less than 2000 megawatts, MW. Although the power Holding Company of Nigeria, PHCN...announced that it had generation capacity of 4,000 MW (p. 19).A number of factors have been identified as causative elements of this poor state of affairs. These identified factors include progressive deterioration of aging power stations, incessant shortage of gas supply to plants using gas, and non-

completion of the ongoing National Integrated Power Project (NIPP), started by the last administration. The last factor is of particular significance to this analysis. This is so because the NIPP was designed to cause a revolution in power generation for the country. Records however, have it that since Yar'Adua came into office as the President; the NIPP projects have been completely abandoned, starved of funds. The initial projection was that the NIPP projects would add 7,600MW to the national grid by August, 2008, when the first phase was supposed to have been completed. Rather, the observed under the Yar'Adua administration has in the words of Adekeye (Tell, December 8, 2008) been "the worsening situations (which) force PHCN to announce the loss of 800 MW generation capacity (sic), November 16 complete shutdown of its power station in Sapele, Delta State..." (p19). Consequent upon the above, epileptic power supply under the present administration (2007-2011), to a large extent has run several self-employed individuals and companies out of business. Accessed data have it that as at August 2008, three million people lost their jobs in Kano State (factories) alone. Kano city is known for its chain of industries and factories, especially in the textile industry. However, most of these companies have had to close shop, with the attendant spiral effect on that State's economy. President Yar'Adua had in the early days of his administration promised to declare a state of emergency in the power sector. Same promise went for rail, road, and air and water transportation. However, not much seem to have been recorded. Instead of declaring the promised state of emergency, the existing power projects have been starved of funds (as observed above). Analysts have argued that availability of power supply is the template (sine qua non) for meaningful industrial and economic development of any nation. Thus, the seeming disregard of the Yar'Adua administration of this fact is said to be projecting the President's seven-point agenda as a ruse. As a matter of fact, some critics have placed this policy thrust on a Zero-scale. For example, while commenting on the seven-point agenda and its implementation, one Adamu (in Tell, February 23, 2009) has asked Which seven-point agenda? Ask even the President to articulate his seven-point agenda and in less than a minute you will know that there is nothing like seven-point agenda. The only visible agenda that the President has succeeded in achieving is giving out two of his daughters to governors (p. 20). The views of the analyst above and others, has exposed the fact that the policy thrust of the administration is ill-digested, that even the chief marketer himself, finds it difficult to explain what it is all about. With regard to water transportation, some reports have it that the ports concessioning exercise of the Yar'Adua administration was defective because it was done in a hurry without taking critical issues into consideration and lacks legal backing. Ports services, from investigations have already deteriorated in recent times; little or insignificant change in that sector has not turned the state of affairs around.

The report from the country's road transportation sector is not very different from the power and water sectors experiences narrated above. Most of the federal roads are in bad, dilapidated shape. Typical examples to demonstrate this

discovery are the Benin-Shagamu-Ore, Lagos-Ibadan and Gombe-Numan-Yola road projects. In the down stream oil sector, the nation's refineries have not done well, as a matter of fact; almost all of them have gone comatose; despite huge amounts spent to get them working. Yet the administration seems not to have any proposed solution(s) to this teething problem. Rather, what the nation has experienced is the recycling of some of the very old hands that have been fingered as part of the petroleum industry problem, as key government officials by the Yar'Adua administration. Alhaji Rilwanu Lukeman (73 years old), for example, who had been Minister for Petroleum for three times in this country's history, has again been appointed into that office, to help realize the seven-point agenda from that end. This is a question of doing some thing in a particular way and expecting a different result. It was the expectation of analysts that this administration would include, revamping the country's refineries (Kaduna, Port Harcourt and Warri) and the building of new refineries, in its emergency plans. Nigeria rather imports a quantum of its petroleum needs, with the resultant capital flight. Recently (last days of February, 2009), government has declared its intention to withdraw subsidy on petroleum products before the end of the year. The fact to emphasize from majority of the analysis made so far is that, to a large extent, the critical infrastructures under the Yar'Adua administration have been in worse state, compared to the previous administration's records. This poor state of affairs has according to Onwuamaeze (in Newswatch, February 9, 2009) led to a situation where: The private sector has continued to spend huge sums of money to privately provide these infrastructures, thereby making the cost of production high and less competitive at home and abroad. All these have adverse effects on production and employment and negate government claim of high growth rates that is not accompanied with corresponding significant growth in employment and poverty reduction in the economy (p. 47). It can thus be inferred from the above that inadequate attention so far accorded the provision of critical infrastructure by the Yar'Adua administration, has negatively impacted on other areas that will be identified in the body of this work, like food security, human capital development, land tenure and home ownership, national security and wealth creation.

The Niger Delta: President Yar'Adua, on coming into office, identified the Niger Delta crisis as a factor that will attract a lot of attention from his administration. He promised to declare a state of emergency on the Niger Delta problem. However, about two years on and with the creation of a Niger Delta Ministry, with Ufot Ekaette as the pioneer Minister, no state of emergency has been declared. There is no serious effort on the part of the administration, either, to demonstrate the fact that the Niger Delta problem has attracted the attention it deserves from the Yar'Adua administration. A major yardstick worth adopting in testing the validity of this assertion is the 2009 budgetary allocation to that region. The Niger Delta region, made up of nine oil-producing states was allocated Fifty Billion Naira (N50b) from the budget figures, while the NDDC (Niger Delta

Development Authority) got Twenty Seven Billion, Twelve thousand Naira (N27.12b) for its operations. These two figures combined, gives a total amount of Seventy Seven Billion, Twelve thousand Naira (N77.12b). These joint budgetary allocation is about Two Billion Naira (N2b) less than the Seventy Nine Billion Naira (N79b) allocated to the NDDC alone in 2008 (Tell, December 22, 2008).

In line with the position taken by a number of analysts, we raise a question with regard to the propriety of the establishment of a Niger Delta Ministry that will be starved of funds as has been the case with the NDDC. Even if the government argument has been that of misappropriation of funds by the officials of that Commission and other intervention agencies; what measures have been taken against Ministry of Works and NDDC staff and state governors who divert the funds meant for the development of the Niger Delta region? This study observes here that the existing cabals with their government officials' collaborators will most likely; hijack the funds that will be channeled through the newly established Ministry for the development of that region.

These developments have largely left the Niger Delta indigenes and dwellers, disappointed, over the insensitivity of this administration to their age-long plight. The implication of the observed is that instead of solving the already identified problems of the Niger Delta region, the actions and or inaction of the Yar'Adua administration is likely to escalate the problems, at the detriment of national development. This is so because, crude oil presently accounts for more than 85% of the nation's foreign exchange earners, and the source of this resource is the Niger Delta region. Sonmonu (Tell, November 10, 2008) has observed among others that the major factor that fuels the Niger Delta problem is poverty. This factor has equally resulted into serious security problems where a great number of weapons have been illegally imported into the country and are been used by the youths of that region to engage members of Nigerian Armed Forces in battle; especially along the creeks. Thus, a number of analysts have argued thus; solve the poverty and environmental problems and you succeed in solving the Niger Delta problem or crisis.

The Yar'Adua administration however, seem not to have come to terms with the logical presentation made above. It has rather shown more interest in increasing the number of security armed personnel posted to the Niger Delta region. These personnel, unfortunately, have been identified as major beneficiaries of the illegal bunkering of the nation's petroleum products along the creeks of the Niger Delta. This analyst had in the last quarter of 2008 witnessed a scene where along the Mbiamma creeks, bunkered PMS (Premium Motor Spirit-condensate) were being siphoned from the badges (boats) into all sorts of containers. The irony was that this illegality took place under the full glee (supervision) of a truck load of members of the Joint Task Force (JTF) (see Newswatch Magazine, September 29, 2008).

Food Security: The President has included food security among the items to be given adequate attention under the seven-point agenda. Through this focus, the administration, it is stated, intends to enhance agricultural production that would lead to enough food production for local consumption and export. The question that begs for answer however, is, what strategy has been proposed for the realization of this objective? Is it the encouragement of farmers through easy access to loans, mechanization of that sector of the economy or making land easily accessible to willing investors?

In the area of fertilizer supply to farmers, for example, investigations have revealed a number of irregularities in recent times. One of these has to do with the appointment of contractors by the government to take charge of the purchase and distribution of the commodity to end users. The lackluster attitude of this government towards ensuring sufficiency in food production under the declared seven-point agenda has been painted by Adamu (Tell, Februay 23, 2009):

Farmers come under cooperatives to get loans from banks. But that is not available here. Then they talk about food security and I laugh. This is the same government that appointed three contractors to supply fertilizer. Before (Yar'Adua), there were more than 60 contractors. They reduced it to three saying that it will be better. But more than 20 percent of the fertilizer meant for farmers last year was not supplied. And one person from Katsina State handled that contract... There is no direct or deliberate measure for the poor farmers (pp. 20-21).

Consequently, if a programme targeted at massive food production does not carry the peasant farmers along, then it is an incontrovertible fact that it is likely to fail and go the way of previous agricultural policies in the country. Such past programmes include Operation Feed the Nation (OFN), and Green Revolution, among others.

Human Capital Development: This aspect of the policy thrust is targeted at reforming the education sector of the economy, to improve skills and enhance standards. Again, there are some questions to be asked here. What improvement has been recorded in that sector during the period under review has been at the helm of affairs, positive or negative? If we attempt to tie the answers to the above to the development of critical infrastructure, x-rayed above, the likely answer would appear in the negative; the country has not recorded significant growth.

The government seems not to have come up with specific programmes aimed at bringing the education sector out of the woods. The state of infrastructural decay of educational facilities runs from the primary, secondary, to the tertiary levels. In the absence of enabling infrastructure necessary for enhanced performance of these educational institutions, it would be very difficult to achieve enhanced skills and standards by the envisioned 2020. Most federal universities, for example have to access loans from banks on a monthly basis to augment the funds they get from the federal government for payment of staff salary. These same institutions have to on a daily basis; spend so much on independent power generation, because the public power

source is largely unreliable. Hence, universities, polytechnics and colleges of education have to acquire power generating plants which cost much to run and maintain. The salary scale of Nigerian tertiary institutions has been identified as one of the poorest in the world. It is note worthy that psychologists have proved beyond reasonable doubts that sufficient motivation is directly related to growth and productivity.

Land Tenure and Home Ownership: This aspect of the seven-point agenda is aimed at reviewing the Land Use Laws, to enable citizens' access mortgage facilities. This aspect is directly related to food production in Nigeria. By the existing Land Use Act and other related laws in Nigeria presently, all land belong to the Federal Republic of Nigeria. Consequently, when President Yar'Adua included this issue as one of the areas his administration would act on quickly, it was expected that it would be accorded the urgency it deserves.

It is however on record that it took this administration about two years (February, 2009) to present before the national legislature, a bill seeking for the amendment of sections of the land use laws of Nigeria. This proposal, it must be observed here, has to undergo the constitutional requirements of two-thirds majority acceptance at the federal, state and local government legislatures. The observation here is that, based on hind sight, it is observable that as most attempts at constitution review or amendment by civilian administrations have gone, it is unlikely that this one will achieve the set objective(s) in set time. It is equally worth observing that the acquisition of Certificates of occupancy (C of O) by Nigerian farmers is not the primary problem in this area. What the government rather should have focused on for now was to think of how to encourage the formation of cooperative societies, fund and monitor their activities, to the advantage of genuine farmers whose capacities have been hindered by the absence of enough funds. Through such cooperatives, enterprises will access funds and spring up again, to the benefit of the national economy and development.

National Security: Threat to lives and property seem to have assumed an unprecedented scale under the Yar'Adua administration. The available statistics informed the President's decision to include national security and intelligence among the seven-point agenda. Some observers have argued however, that equipping the security agencies and getting them battle ready is not the likely solution for this problem. Most have observed that a strong relationship exist between extreme poverty, hunger, joblessness and increased crime wave.

This paper thus submits that to tackle security problems seriously in Nigeria is to attend to the problems of poverty and joblessness.

Wealth Creation: This administration intends to diversify the nation's revenue base, from oil to the non-oil sectors. This focus is closely tied to food security, land reforms, human capital development and critical infrastructure.

Nigeria is a country, which for many years has depended on a mono-product (oil) for its foreign exchange earnings. As at date, crude oil accounts for more than 85% of externally

generated revenue for the country. This has for some time impacted negatively on the nation's economy, especially in these days of drastic fall in the price of crude oil at the international market. The country has not shown enough commitment towards economic diversification. The events of the last eight months (July, 2008-February, 2009) would be used to buttress our observation here. For more than six months in 2008, Nigeria recorded an all time high in its foreign exchange earning (excess crude account), and consequently huge reserves (as much as \$60 billion was declared at some point). This was as a result of the unprecedented increase in the price of crude oil, which went as high as \$145 per barrel. Analysts projected that that would serve as an opportunity for the diversification programme of the country to be kick-started.

Instead of investing the excess crude money into the development of the vital sectors of the economy, the politicians fought for and succeeded in getting the money shared among the three levels of government, upon which they preside. Majority of such funds unfortunately, found their way into private accounts owned by the politicians and their collaborators. Akpan (Newswatch, February 16, 2009), writing about the huge revenue which accrued to the nation that period has observed:

From reliable sources, we learn that out of the N2.9 trillion shared from the excess crude oil account between May and October 2008, more than #100 billion went into the accounts of some greedy public officers. Now the country is looking for #4 trillion to stabilize the economy. What an irony? (p. 7).

This observation is indeed a tragedy caused by visionless leadership which the country presently parades. Politicians seem to have a poor memory of history. After the oil boom of the 1970s, came the economic doom of the 1980s, which effect the nation still grapples with. Presently, after the oil boom of 2008, Nigeria is again suffering from the effects of the current global economic meltdown (with oil selling at \$34 per barrel). It must be observed here that the 2009 budget was passed on the projection of \$45 per barrel of oil. Nigerian politicians have repeated the ugly history of the 1970s. This development automatically portends danger for the administration, as funds may not be available to execute the projects already outlined under the seven-point agenda.

V. CONCLUSIONS

The President Yar'Adua administration set out to incorporate the MDGs into the major policy focus of the administration for the next couple of years. To achieve this objective, the administration floated the seven-point agenda as the major policy thrust of the government.

This article examined the full import of the Millennium Development Goals (MDGs). It equally listed the contents of the seven-point agenda and raised a number of questions.

The paper observed that for a long time, Nigeria has suffered as a result of the absence of the critical issues raised in the President's seven-point agenda. It equally observed strongly that from available indices, the present administration lacks the political and administrative will to implement the seven-point agenda with the zeal it deserves,

to make the country the 20th largest economy by the year 2020. The paper thus ends on a note that Yar'Adua's vision 20:2020 may end up as another catchphrase, like vision 2010, education for all by the year 2000, housing for all by the year 2000, health for all by the year 2000 and others before it, which did not solve the problems that necessitated those policy pronouncements.

The following recommendations, if applied are expected to help the Yar'Adua administration achieve the desired goals by the year 2020. Nigeria should forge ahead with the MDG goals, objectives and programmes, as there could be some development benefits derivable from the programme at the end. The Yar'Adua administration should rethink the seven-point agenda and opt for at most two, for which it could summon the capacity to start and finish successfully, than go full scale for important strategies that it lacks capacity to pursue to a logical conclusion. For now, the administration could decide to channel majority of the country's resources into the critical infrastructure sector of the economy, which to a large extent appears to be a catalyst for the achievement of the other six goals. After recording success in that angle, other issues could then be attended to appropriately.

The country should accord diversification of the economy, a primary attention.

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Analysis of Capital Market Performance and the Growth of the Nigerian Economy: A Cointegration Approach

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Abstract-This study investigated the impact of the capital market performance on the growth of the Nigeria economy. To carry out this investigation, the researcher used the real gross domestic product (as a proxy for development indicator) on the market capitalization, newissues, value of shares traded and turnover ratio as capital market indicators. The cointegration approach was used for the analysis of data. The results show that there exist a longrun relationship between the growth of GDP and the capital market indicators. The gross domestic product is positively and significantly related to the one period lag of the capital market indicators. The lagged error correction term (ECTt-1) is significant and has the expected negative sign confirming the existence of longrun relationship between the dependent and explanatory variables. The causality test shows that capital market indicators namely, market capitalization and value of shares traded granger causes the growth of GDP. The researcher therefore calls for boosting of the activities of capital market through public enlightenment campaign and more relaxation of entry requirement into the Nigerian Stock Exchange. This is necessary for the continuous growth of the economy
Keywords-Capital market, Market capitalisation, new issues, GDP, Cointegration.

I. INTRODUCTION

Prior to deregulation of Nigerian economy in 1987, the Nigerian stock market was regarded as largely underdeveloped. During this period, the debt equity ratio was very high as most firms prefer to finance their investment using bank debt (Ikhide, 1997). The preference for bank debt under this period could be ascribed to the prevalent flow in interest rate regime. Ogun and Iyoha (2005) noted that the activities in stock market within this period were generally low and the financing of long term investments with short term bank debt was rampant among firms. Available research evidences indicate that the Nigerian capital market is imperfect (Adelegan and Ariyo, 2008, Odedokun, 1995, Olowe, 1998, Oludoyi, 1999, Adelegan 2003,2006). International Finance Corporation (IFC) classify the Nigerian capital market as emerging and underdeveloped having exhibited all different forms of imperfections which include barring of foreign investors from entering into the Nigerian capital market, imposition of price caps on share price movement, regulation of proportion of negative betas, significant abnormal returns and liquidity of the market (Inanga and Emenuga 1997.

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Ogwumike and Omole 1997, Oludoye 1997, Inanga 1999, Adelegan 2003). Ukeje, Kama and Eluemenor (2007) noted that transactions in equities were hitherto weak due largely to low level of information dissemination and awareness which resulted in sluggish market behaviour. Adelegan and Ariyo (2008) maintained that the imperfection is revealed in microstructure elements such as high transaction costs.

Ukeje et al (2007) however observed that the analysis of the major indicators of activity in the capital market shows that the market has experienced remarkable growth since 1980. With the computerization of trading and increased transparency in delivery of corporate information, the market has become relatively more efficient. Since the 1980s, the market indicators including the number of listed companies and securities, market capitalization, new issues, value index and market turnover have recorded significant increases (Okpara,2006). The Second-tier Securities Market (SSM) in 1985; which aimed at assisting small and medium-size indigenous companies to have access to the resources of the capital market by relaxing the cost and listing requirement for them; the deregulation of interests rates in 1987, the continuous privatisation of government owned companies since 1988 and the internationalisation of the market in 1995 accentuated the interest of the private sector investment in the stock market and led to improved performance of market indicators. Ukeje, kama and Eluemenor (2007) noted that these developments have enhanced market liquidity; offered opportunities for price discovery; improved market efficiency in service delivery; and above all resulted in unprecedented growth of both the primary and secondary markets.

In July 1996 alone, about 20 companies were listed on the second tier securities market. Olugunde, Elumilado and Asaolu (2006) however, noted that this is shallow when compared with Indian stock exchange with about 4344 companies or London Stock Exchange with about 5085 listed companies and then suggested the need for accelerated development of the market. Mohammad-Tanko (2004) added that inspite of the improved performance of the market, it continued to face problems. The small size of the market with only about 195, when compared with that of Egypt which is 650 and that of South Africa which is 642, is inadequate. The market capitalization rate is without exception.

Following financial liberalization and the relaxation of rule for bank establishment in 1987, there was a rapid increase in the number of banks from 41 in 1986 to about 120 in 1992. The banks were buying foreign currency at low official

prices and reselling in bureaux de change or parallel market to make substantial returns.

However, evidence prevailed that though the banks predominantly engaged in short term arbitrage activities, many of them had poor balance sheets and made limited lending to the private sector. Weak regulation of financial institution led to wide spread concern about the rising systematic risk in the Nigerian banking sector in the 1990s. In 1988 alone, a total of 26 banks including listed ones were put to liquidation and by 1993, it was estimated that about half of the licensed banks were distressed (Okpara, 2006, Okogo and Osafo-Kwaako, 2006). This situation led to banks recapitalization exercise in 2004. This development made many private enterprises/investors to patronize the equity market to source funds, as bank lending became relatively expensive. This resulted to very high tempo of activities in the new issues market in 2005 and 2006 as many banks and insurance companies sourced additional funds from the stock market. The exchange considered and approved 62 applications for new issues, valued at N1.4 trillion in 2006, compared with 52 applications valued at N730.5 billion in 2005. The non-bank corporate issues accounted for 48 per cent of the new issues approved in 2006, with 40 applications valued at N678.54 billion, while the banking sector accounted for 41 per cent with 21 application valued at N577 billion (Ukeje, Kama, Eluemunor, 2007).

From 91 in 1980, the number of companies listed on the exchange (equities) rose from 131 in 1990 to 214 in 2005, but declined to 202 in 2006 as some quoted banks were involved in merger/acquisitions as a result of not meeting up with the policy induced recapitalization exercise in the banking sector, while those that were totally unsuccessful were de-listed from the exchange. Similarly, the number of total securities listed increased from 188 in 1980 to peak at 295 in 1990, before it fluctuated downwards in 2006 to 288 securities made up of 36 government stock, 50 industrial loans (debenfure/preference) stocks and 202 equity/ordinary shares (including SSM) of companies: with a total market capitalization of N5.12 trillions. The deregulation of the capital market in 1993 and the follow-up internationalisation of the market in 1995 with the abolition of laws that constrained foreign participation necessitated positive changes to the extent that the stock exchange witnessed transactions in foreign portfolios in excess of N10.0 billion excluding strategic foreign investment in banks under recapitalization programme in 2005. The volume of transactions rose by 40.0 per cent to 26.7 billion shares in 2005 from 19.2 billion shares in 2004, while the value stood at N262.9 billion, up by 16.4 per cent from N225.8 billion in 2004. In 2006, the total turnover was 36.7 billion shares, indicating an increase of 37.5 per cent over the preceding year's level. The year closed with a market turnover value of N470.3 billion or an increase of 78.8 per cent over the preceding year. The market capitalisation skyrocketed from N2900bn in 2005 to N13294.50bn in 2007.while new issues rose from N552.78bn to N2400bn. This phenomenal growth notwithstanding, the market

capitalisation represents only 28 percent of the GDP, compared with 167.1 per cent for South Africa, 50.7 percent for Zimbabwe and 130 percent for Malaysia. This indicates that the potentials for growth in the Nigerian market is still very enormous. (Ukeje, Kama, Eluemunor, 2007).

The Nigerian capital market responded negatively to "economic meltdown" in global economy with a "crash". The global financial crisis began in the United States of America and the United Kingdom when the global credit market came to a standstill in July 2007 (Avgouleas, 2008). The crisis which led to a fall in the world stock market and numerous financial institutions, started to show its effects in Nigeria in the middle of 2008 that the Nigerian government just like the governments of even the wealthiest nations, came up with rescue packages to bail out their financial systems (see Adamu, 2008). Several anti market initiatives by the regulatory authorities like the one percent minimum fix on downward movement of share prices helped deplete investor confidence in the capital market and accentuate the fall. However, with so much selling pressure on the market and little or no demand from any source, it was not surprising that the Nigerian stock market plunged 67 percent in 2008 to become one of the worst performing markets in the world.

In the words of Osai-Brown (2009), sadly, "I cannot disagree with the contrasting description of what happened globally and what happened locally which resulted in the Nigerian capital market earning the unenviable accolade as one of "the world's worst performing stock market in 2008, after losing N5.2 trn in market capitalization and 54 percent in the All Share Index" just a year after it had emerged as the world's best performing stock market in 2007 with a return of 74.9 percent

(<http://www.articlesbase.com/investing-articles/global-economic-meltdown-crude-oil-and-the-nigerian-capital-market-1083294.html>). Sarki-Sule (2009) blamed the downturn in the market on banks, which put the shares pledged as collateral on offer to realize their money, as well as the activities of speculators (constituting about 70 per cent of players in the market), whose swoop resulted in a significant fall in the value of stocks. As a result of this and the flight of foreign portfolio investors, the value of the Nigerian Stock Exchange market capitalization fell by over N3.5 trillion by the end of 2008. At the end of January, for example, the NSE All-Share-Index dropped by over 30 per cent, a situation, which made Renaissance Capital in January end report considered it "the world's worst-performing equity gauge in dollar terms so far in 2008 (Ighomwenghian,2009). This cocktail of crisis was further compounded by the sudden steep drop in crude oil prices from a high of about \$145 pb to an average of \$35 pb. The repercussion effect of this in a monocultural oil dominated economy was that the liquidity position of the economy as a whole was compounded. In view of this, most of the banks were forced to further cut down their activities with the capital market in a bid to boost their liquidity position and remain in business.

The dwindling fortunes in the market continued into early part of 2009 but in May 2009, the market rebounded strongly coinciding with the restoration of a level of confidence in the global financial system which saw a resurgence in crude oil prices in the international markets from an average of between \$35 to \$40 to about \$69 before slipping to its current average of \$60.

The Nigerian Stock market made a strong 38.3 percent gain in May owing probably to the fact that the crude oil prices reached a new high of \$70 in the international markets. This suggests a strong relationship between crude oil prices and the performance of the Nigerian stock market.

II. METHODOLOGICAL FRAMEWORK

This section is divided into two namely, specification of the model and method of data analysis.

A. Specification of the Model

A discussion on issue like economic growth in relation to capital market performance could be based on economic variables such as Gross Domestic Product (GDP) and capital market activities. This is because, economic growth has been defined (Nnanna, Englama and Odoko,2004) as the ability of the economy to increase production of goods and services with the stock of capital and other factors of production within the economy. The GDP being the market value of goods and services produced in the economy over a period of one year should therefore have a link to the capital market activities. Significant changes in the capital market will invariably affect its growth. Thus, increase in market capitalisation (Mktcap), new issues (Newiss), turnover ratio (TOR) and value of shares traded (Vshat) are expected to have a positive impact on the GDP. In the light of this, the macro-economic model for the determination of long-run impact of capital market Performance on the growth of Nigerian economy will be stated as follows. $GDP = F(Mktcap, Newiss, TOR, Vshat)$ A critical evaluation of this equation will help us to draw conclusion on the longrun impact of capital market performance on economic growth of Nigeria.

III. METHOD OF DATA ANALYSIS

In verifying the long-run relationship between the capital market development and economic growth, the study uses annual series from 1970 to 2007. The first stage in the empirical investigation is to analyze the time series properties of the data using the unit root (Augmented Dickey Fuller) test to determine the order and level of difference stationarity of the variables on the first order autoregressive process AR(1).

Two basic types of time series model exist; these are autoregressive and moving average models. The basic autoregressive model for a series X expresses that series as a function of past values of itself and an error component.

$$X_t = \alpha(L)X_{t-1} + \epsilon_t$$

Where ϵ_t = a white noise error process and

$$\alpha(L)X_{t-1} = \alpha_1X_{t-1} + \alpha_2X_{t-2} + \dots + \alpha_nX_{t-n}$$

Alternatively, this can be stated as follows

$$X_t = C + \sum_{i=1}^n \Psi_i X_{t-i} + \epsilon_t$$

Where Ψ_1, \dots, Ψ_n are the parameters of the model, C is a constant and ϵ_t is an error term. The constant term is omitted by many authors for simplicity. This would be referred to as the nth order autoregressive process, or AR(n). The basic moving average model represents X as a function of current and lagged values of a white noise process;

$$X_t = \xi(L)\mu_t$$

Where μ_t is a white noise error process and

$$\xi(L)\mu_t = \mu_t + \xi_1\mu_{t-1} + \dots + \xi_q\mu_{t-q}$$

this can also be written as

$$X_t = \mu_t = \sum_{i=1}^n \xi_i \mu_{t-i}$$

Where ξ_i are the parameters of the models and μ_t s are the error term. This equation would be referred to as a qth order moving average process, or MA(q). A mixture of these two types of model would be referred to as an autoregressive moving average model (ARMA)n,q, where n is the order to the autoregressive part and q is the order of the moving average term.

Where the series is differenced to achieve stationarity, the process becomes an autoregressive integrated moving average ARIMA(p,n,q) process with p as the order of the AR component, d the number of times the series is differenced, where q is the order of the MA process. A non-stationary series could be made stationary by differencing once or twice. This is called an integrated series. It could be integrated of order 1 which is often denoted as I(1) or order 2 represented by I(2). The stationary linear combination of the variables under consideration is called cointegration equation (Engle and Granger, 1991).

The formulated model will be tested for stationarity using the Augmented Dickey Fuller Unit root test to be sure that one is not analyzing inconsistent and spurious relationship. A series that exhibits a stochastic trend, or even simply wanders around at random will not be stationary and cannot be forecasted far in the future. A stationary series will constantly return to a given value and no matter the starting point, in the long-run, it is expected to attain that value (Hall, 1994). To illustrate the use of Dickey Fuller test, one can state the autoregressive AR(1) process. Thus,

$$Y_t = \mu + \rho Y_{t-1} + \epsilon_t$$

Where μ and ρ are parameters and ϵ_t is the white noise assumption. Y is a stationary series if $-1 < \rho < 1$. If $\rho = 1$, Y is a non-stationary series (a random walk with drift). The hypothesis of a stationary series can therefore be evaluated by testing whether the absolute value of ρ is strictly less than one (Dickey and Fuller, 1981). Thus, $H_0: \rho = 0$ and $H_1: \rho < 1$. If the series is correlated at higher order lags, the assumption of white noise disturbance is violated and the ADF test makes a parametric correction by assuming that the series follows an AR(p) process. The test methodology is then adjusted by adding lagged difference terms of the dependent variable Y to the right hand side of the regression. Thus,

$$\Delta Y_T = \mu + \gamma Y_{t-1} + \delta_1 \Delta Y_{t-1} + \delta_2 \Delta Y_{t-2} + \dots + \delta_p \Delta Y_{t-p+1} + \varepsilon_t$$

The hypothesis for the augmented specification is tested thus;

$$H_0: \gamma = 0 \text{ and } H_1: \gamma < 0 \text{ where } \gamma = p - 1.$$

That variables are cointegrated, implies that they share a long-run relationship and will move closely together over time; meaning that the difference between such variables are stable over time and there is some degree of convergence in the long-run.

To test for cointegration, Johansen's (1991) tests the restrictions imposed by cointegration on the unrestricted vector autoregressions (VAR) involving the series. If the VAR is of order P, the starting equation can be stated as

$$Y_t = A_1 Y_{t-1} + A_2 Y_{t-2} + \dots + A_p Y_{t-p} + BX_t + \varepsilon_t$$

Where Y_t is a k – vector of non-stationary I(1) variables, X_t is a d vector of deterministic variables and ε_t is a vector of innovations. The VAR can be re-written as:

$$\Delta Y_t = \Pi Y_{t-1} + \sum_{i=1}^p \Gamma_i \Delta Y_{t-i} + BX_t + \varepsilon_t$$

where

$$\Pi = \sum_{i=1}^p A_i - I, \quad \Gamma_i = p \sum_{j=i+1}^p A_j$$

Cointegration was developed to make the concept of long-run equilibrium operational and the presence of cointegration forms the basis for error correction model specification. The dynamics of capital market performance is then specified in an error correction model (ECM_t), incorporating the one period lagged residual from the static regression. The error correction model is designed to capture the short-run deviations that might have occurred in estimating the long-run co-integrating equation (Engle and Granger, 1987). Thus, the capital market model will be re-specified as follows to include an error correction term (ECM_t)

$$GDP = \phi_0 + \phi_1 Mktcap + \phi_2 Newiss + \phi_3 TOR + \phi_4 Vshat + \phi_5 ECT_{t-1} + u_t$$

The researcher also employed the Granger causality test, as correlation does not necessarily imply causation in any meaningful sense of the word. The basic principle of Granger causality analysis is to test whether past values help to explain current values. Maddala (1998) indicates that if two variables are cointegrated, there must be at least one direction of causality between investigated variables. Thus, the Granger test is predicated on the following regression analysis:

$$Y_t = \beta_0 + \sum \beta_i Y_{t-i} + \sum \beta_u X_{t-i} + \mu_t$$

$$X_t = \alpha_0 + \sum \alpha_i X_{t-i} + \sum \alpha_u Y_{t-i} + v_t$$

Where Y_t and X_t are the GDP and the capital market variables (respectively) to be tested and μ_t and v_t are the idiosyncratic terms that capture all variations in Y_t and X_t not in the lagged values.

IV. RESULTS AND DISCUSSION

The results from the Augmented Dickey-Fuller set of unit root tests of the series (presented in table 1) show that all the

variables are integrated of order one, I(1) at 5 percent level of significance. Thus, the economic growth indicator GDP, follows an integrating I(1) process so that the stock market variables are a stationary process.

The result of the test of non-stationarity of the residuals (RES) from the static regression in the economic growth equation presented in table 2 in the appendix, proves significant at 1% and 5% level of significance, at lags 1 to 3. I therefore reject the null hypothesis of no cointegration and conclude that the variables are cointegrated.

Table 3 in the appendix shows the cointegrating vectors that span the explanatory variables in this macroeconomic growth model using the Soren Johanson (1991) cointegration tests.

The results show that the Johanson (1991) cointegration test for the GDP series indicate 3 cointegrating equations at 5 percent level of significance implying that there are 3 significant vectors, or only 3 different linear combinations of the variables that can be stationary and can therefore drift together roughly at the same time with the GDP.

The regression estimates for the reparameterised error correction term (ECT_t) is presented in table 4 of the appendix. The parsimonious model shows that the past values of real GDP, value of shares traded, market capitalisation and turnover ratios are positively and significantly impacting on the current value of growth of the real GDP. However the past values of the differences (changes) in these variables with the exception of value of share traded are significant but could not meet the a priori expectation. The coefficient of determination is highly significant and the overall regression is also significant. The error correction coefficient is expectedly negative and highly significant at both 1% and 5% levels. The Granger causality results at lag 2 (presented in table 5) show that market capitalisation and value of shares traded granger causes real GDP with no reverse or feed back effect. This result is presented in table 5 in the appendix.

V. CONCLUSION

This study investigated the impact of the capital market performance on the growth of Nigerian economy.

The result shows that there exist a long run relationship between the growth of the economy proxied by gross domestic product and the capital market indicators. There exists three significant vectors or three different linear combinations of the capital market indicators that can drift together roughly at the same time with the GDP. The one period lag of the market capitalisation, new issues, value of shares traded and turn over ratio, all impact significantly on the growth of the GDP.

In addition, the results from causality test show that market capitalisation and value of shares traded, each drives real GDP with no reverse or feed back effect. Thus, the granger causality test supports the evidence of unidirectional causal link from capital market to gross domestic product. The economic implication of the finding suggests a need for more focus on the enhancement of the capital market so as to engender greater growth of the economy. This could be

achieved through enlightenment campaign on the importance of the capital market to the industrialists/small scale investors and more relaxation of the stringent entry requirements of the companies into the Nigerian Stock Exchange.

APPENDIX
Table 1: Stationarity Test

Variable	Augmented dickey fuller test statistic	Max lag	Order of integration
D(GDP)	3.247794	2	1
D(Mktcap)	5.841285	2	1
D(Newiss)	17.19447	2	1
D(TOR)	-5.183995	2	1
D(Vshat)	23.58533	2	1

Critical value 1% = -3.6353, 5% = -2.9499, 10% = -2.6133

Table 2: Augmented Dickey-Fuller Unit Root Test on Residual RES for GDP equation.

Lag No.	RES	Critical value 1%	Critical value 5%
1	-4.97238	-2.6486	-1.9535
2	-3.359997	-2.6649	-1.9559
3	-10.01678	-2.7411	-1.9658

Table 3. Johanson Cointegration tes

Sample: 1970 – 2007 Included observations: 35 Test assumption: Linear deterministic trend in the data Series: RGDP MKTCAP NEWISS TOR VSHAT Lags interval: 1 to 2				
Eigenvalue	Likelihood Ratio	5 percent Critical value	1 percent Critical value	hypothesized No. of CE(s)
0.978222	242.7481	68.52	76.07	None**
895428	108.8036	47.21	54.46	At Most 1 **
460655	79.78277	29.68	35.65	At Most 1 **
188301	8.173747	15.41	20.04	At Most 1 **
0.027000	0.957990	3.76	6.65	At Most 1 **

**() denotes rejection of the hypothesis at 5% (1%) significance level
L.R. test indicates 3 cointegrating equation(s) at 5% significant level

The Pasimonious
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Variable	Coefficient	Standard error	T statistic
C	-284.893	194.61	-1.46
RGDP(-1)	100.266	40.105	2.50
D(RGDP(-1))	-101.027	42.626	2.37
D(RGDP(-2))	-71.762	35.470	-2.02
VSHAT(-1)	29.985	11.785	2.544
D(VSHAT(-1))	425.133	181.04	2.35
D(VSHAT)(-2)	303.95	151.58	2.01
	29.515	11.809	2.499
MKTCAP(-1)	-29.656	12.454	-2.381
D(MKTCAP(-1))	-21.096	10.464	-2.061
D(MKTCAP(-2))	20655.14	8290.37	2.491
D(MKTCAP(-2))	150005.61	7427.08	2.02
TOR(-1)	-21096.659	8930.147	-2.36
D(TOR(-2))	-15005.61	7427.08	-2.02
D(TOR(-1))	-1.431	0.131	-10.913
ECT(-1)			

$R^2 = 0.62$, $F(27,5) = 2.66$

Table 5. Pairwise Granger Causality Tests (Lag 2)

Null Hypothesis	Obs	F-Statistic	Probability
RGDP does not Granger Cause MKTCAP	36	1.54831	0.22860
MKTCAP does not Granger Cause RGDP		6.06058	0.00600
VSHAT does not Granger Cause RGDP	36	4.44158	0.02013
RGDP does not Granger Cause VSHAT		1.11030	0.34221
RGDP does not Granger Cause NEWISS	36	0.87980	0.42497
NEWISS does not Granger Cause RGDP		0.85287	0.43595
TOR does not Granger Cause RGDP	36	0.22067	0.80323
RGDP does not Granger Cause TOR		0.81085	0.45368

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Transition of Gender System through Time and Space: Case Study of a Tribal Group in Assam, India

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160807, 160701, 160609

Abstract- In recent years gender study has assumed great significance in the context of large scale development planning the world over in general, and in developing countries in particular, involving the people irrespective of the sex bias. To make development a success, every social person's participation is necessary. But gender ideologies prevailing in a society have some determining effects on people's participation in developmental works. On the basis of gender ideology, the people segregate themselves in work spheres and in certain socio-cultural life-ways concerning their gender identity. For this reason the work role expectation of the two genders are never the same in the socio-cultural arena. Among the tribal societies this differential notion is considerably prominent. Thus the knowledge on gender relationship in a society is the prerequisites for any meaningful planning strategy. The study tries to find out the working of gender system among the sonowal Kacharis, a tribal group of Assam, in spheres encompassing their past and present social, cultural and physical environment and work role involvement etc.

Keywords- Gender, gender ideology, gender stratification, gender inequality.

I. INTRODUCTION

A. Gender defined

Gender refers to psychological, social and cultural components of a person. It is an achieved status because people learn what behaviour and attitude they should have according to their label, male and female. Each gender has culturally defined roles. Gender role is what one says and does to indicate others, and oneself, one's maleness or femaleness. It is the outward expression of one's subjective gender identity. In human societies, sex differences are experienced as gender. Therefore, the concept of gender is cultural interpretations of sex differences. Gender depends on how society views the relationship of male to men and female to women. Gender is an unalterable cognitive impression molded by culture of a given society. This unalterable cognitive impression creates a network of system in a society which can be termed as 'gender system'. Gender system includes the system of gender stratification and differentiation, as well as gender division of labour, gender social definition and power inequalities between the genders.

B. Concepts relating to gender

Anthropological studies indicate that in almost all societies men and women do at least somewhat different kinds of works. These may overlap or totally segregate and in a few exceptions, the nature of what constitutes men's works versus women's varies cross culturally. Gender division of labour is rooted in the concept of gender differentiation. Adult males and females in most societies differ from one another, on average, in one or many types of traits: cognitive skills and styles, basic personality, emotional expression, self-concept, priorities among various social roles and so on. Males and females as individuals come to be gender differentiated by a process called 'engenderment'. In almost all societies, it is empirically established that female traits are devalued relatively to male traits through gender differentiation, though gender difference does not, conceptually, mean gender inequality. Gender division of labour affects and is affected by gender inequalities in every society. Then, there is something determinant in societies through which the tasks done by males come to be more highly valued and rewarded than those done by women. Thus we find the second universal fact about gender: perception of gender provides a basis for division of labour in all societies. Males and females in a society are not always equal in their access to the scarce and valued resources. We generally witness stratification among genders regarding access to scarce and valued resources. The extent of such access on the basis of gender identity is termed as 'gender stratification'. Gender inequalities increase along with increased gender stratification. Superior power can be established through the access to resources which are superior to the resources accessed by the group subordinate to the superior power group. Empirical studies indicate that gender stratification has always meant some degree of female disadvantages and superior power for men. Therefore, all systems of stratification are system of power inequality and system of gender stratification implies superior power for men. Scholars in social sciences have forwarded theories relating to the gender sub-ordination in societies. Among those theories the 'early adaptation theory' (Tiger: 1969, Ardrey: 1976), the 'technical-environmental theories' (Nonini: 1985, Divale and Haris: 1976, Leacock: 1981, Gaily: 1984), Socio-biological theories (Wilson: 1975), cultural but universal theories (Sacks: 1979) put emphasis on different aspects of gender stratification and gender subordination in societies.

Anthropologists argue that women's subordination is cultural but rooted in the gender division of labour (Goldelier: 1981; Ortner: 1974). Their view is that gender has symbolic association of women with nature and men with culture, where the later is superior to the former. For some, the gender subordination is a historical fact. For them women's status and authority are the highest in areas where economic and political stratification are the least developed (Bodley: 1982, Diamond: 1974). The view of most social scientists is that gender ideology is one of the root causes of legitimizing male power over women a phenomenon called authority. Gender ideologies are defined as the belief systems that explain how and why males and females differ. It is the gender ideology, the basis on which every society explains different rights, responsibilities, restrictions and rewards given to each gender. The same way it also justify negative reaction to those who violates gender norms. Gender ideologies also create the gender norms in the society which refers to the behaviours that is expected of people on the basis of status to which they assigned, given their sexual biology. Moreover, in a society, when gender differences are perceived as the real differences, such belief system constitutes 'gender stereotype' when they are shared by collectives. Rejecting the feminists' arguments regarding the causes of women's universal subordination, Leacock (1978:254) argues that women's subordination to men, the development of family as an autonomous economic unit and monogamous marriage are all related to development of private ownership of the means of production. Rogers (1975) argues that women's status is dependent on whether or not they control (i) access to resources, (ii) the condition of their work, and (iii) the distribution of the products of their labour. Engeles (1972) has the opinion that male-imposed restriction on women's sexuality had led women to lower rank in the gender hierarchy. scholars like Sokoloff (1980) say that control over labour, whether productive or non-productive, is the root cause of gender hierarchy where females have the debasement. In a male dominated way of labour sphere, women perform a disproportionate share of unpaid labour in the home and are remitted to a secondary position in the labour market. Homework exacts a good deal of effort and time for women. Though men receive a market value of housework from their wives, which is greater than their own, women have a partial claim on men's income. On the other hand, in the redistribution and allocation of resources, Oren (1973) pointed out that men, besides being benefited from women's domestic labour, could also claim a greater share of resources, irrespective of who brings them into the household.

C. Aspects of changing gender domain among the tribal people of Assam

It has been shown in the foregoing paragraphs that the notion of gender difference in the form of ideology, concept, stereotype etc are the product of social, economic and cultural values put on the work role and behaviour of a particular gender. The tribal gender system can be viewed in those aspects. Gender ideologies change over time depending upon the social, cultural, economic and physical

environment where the people interact. The tribal societies have undergone several changes, internally and externally, in due course of time. Changes of social and physical environment have been very rapid in tribal domain especially in the last four decades. Exposure to non-traditional

¹ Assam is one of the seven states situated in the North-east corner of India. A host of tribal people live in the plains of Brahmaputra valley (the mighty river flowing east to west of the state) in the state.

and non-tribal domain, decreasing access to earning resources, primarily natural, increased necessities of non-traditional types, influx of monetary economy and mismatch between production and necessary cash earning etc have deeply influenced the tribal societies and these introduced a lot of changes and shift of gender position, gender ideology directly related to work role in the society. The change process has not stopped there. It is a continuous process and engenderment has been formulating within these societies in a continuous manner. The ethnic and political economic history of the region shows that there are vast differences in socio-economic system during pre-independent and post-independent era. As has been mentioned in several literatures, there was a lot of socio-cultural re-adjustment during the colonial period among the tribal people. The process of loss of several tribal traits and uniqueness and acceptance of some universal or dominant socio-cultural life-ways was characteristic of that period. But we hardly see any major change in economic pursuits of the tribal people in these days. Nevertheless, an incipient trend of extra-domestic work role like services in some establishments was appeared among them. Joining armed forces, doing some lower grade jobs in tea gardens etc were evident in those days. But a sudden change was quite evident by the early part of 1970s in terms of extra-domestic work-role especially in service sector during the period when lots of welfare measures were taken up by the independent government. These include building of road communication, establishment of government offices that opened up job opportunity and opening of market for easy disposal of agro-products following the increase of urban localities. The latest scenario has been evident in terms of better communication system, establishment of schools and colleges in government and private sectors, availability of goods and services in an improved manner and consequent devaluation of agro-products in terms of cash income and comparative mismatch between the cost of necessary items and price of agro-products in general. Besides, a new type of cultural admixture has been rampant that delimits the traditional domain. Thus for analytical purpose we can construct three stages of socio-cultural and political-economic situation in the region along time period. These are not airtight compartments and there may be some overlapping, but in totality, we can see the trends with a clear notion of

² The state was under British rule between 1826 and 1947. By post-independent one mean independence from British Colonial rule on 15th August, 1947.

gender ideologies and change in it. These stages are (i) Stage one (till early 70s), (ii) Stage two (between early 70 and late 1990s), and (iii) Stage three (from late 1990s till date).

D. The Sonowal Kacharis: the tribe under study

Kachari is a generic name for a group of tribal people within the Tibeto-Burman language family. The Sonowal Kacharis are one of the groups of the Kacharis. The popular opinion about the origin of the term 'sonowal' is that these people used to collect gold by washing the sand in the river Subansiri in upper Assam. The Assamese equivalent of gold is 'soon' and therefore, the people who were involved in this profession were known as the Sonowal. Contrary to the above explanation, oral tradition has it that the Baduhunoloy group of Kachari people established their territory named Hemali and Halali which were situated in and around present day Sadiya of upper Assam. These people came to be known as sonowal from the word 'Hunoloy'. At present the Sonowal Kacharis inhabit the district of Dibrugarh, Tinsukia, Lakhimpur, Dhemaji, Sibsagar and Jorhat. They are patrilineal group having clan sub-clan exogamy. They worship their traditional god 'Bathow' and many other traditional deities. They also follow some Vaishnavite rituals as they have become Hinduised accepting the nava-vaihnavism which was first propagated by Sri-Sankardeva in Assam.

II. GENDER THROUGH AGES

A. Society and Gender system in Stage One

i. Economic activities

It was learnt that food collection, horticulture and herding were three major economic pursuits of the Sonowal Kacharis in the past years. In each of these spheres the involvement of different genders in different capacity or work roles was prevalent among the people-- in some cases overlapping each other and in others segregating among genders. Food collection most probably absorbed a significant part of women's work. People were found collecting food items like dhekia (fern), tubers, tero, cane shoots, tejmuri (a kind of thorny creepers), outenga (a sour fruit) etc. There were instances of collecting such items of vegetables in a group manner where girls, under the guidance of one or more married females went to forest to collect food items, especially on the occasion of community feast or in extensive family level ceremonies. Oral traditions of the people indicated how a boy insists his lover to come to him by bluffing her parents that she would go to pick-up kochu hak (tero shoots) and such other eatables in the field. Perennial horticultural gardens happened to be remained the oldest tradition of the Sonowal Kacharis. These included betel nuts, betel-vine, banana

trees, orange and lemon etc. Other fruits they used were mainly grown wild and people used to collect them from forest. Gardening of perineal crops, most probably, ever remained as male's job, whereas, there were ample evidences that a few works in raising vegetables were done by the females using digging sticks---hulang. There was evidence that people practiced herding to a great extent till recent past. Each of such herding group was called khuti. Cows and buffaloes were reared in those khutis and were kept usually near river banks or in the river islands called Chapor. For this purpose, people were organised in small groups and attended the khuti alternately at different times. Thus on the plea of male persons staying out women had to carry out the duty of the domestic chores very often.

It could be understood that a division of labour though not airtight in nature was prevalent among them. Caring domestic cattle like goat, pigs, cows etc were to some extent a job involved in by the females also. Males were busy with their herds, gardens and other non-domestic works. Fishing with jhakoi (a triangular shaped bamboo made implement) was prevalent mostly among the females. There are proverbs regarding the physical ability of a girl when she fishes with her jhakoi. One of such proverbs narrates that one should observe his cattle in the evening and tender paddy in the morning and one should observe and assess a girl's quality when she draws her jhakoi to catch fish in water. Fishing in deep water and in distant places usually was done by males using an instrument called Poloh. The nature of involvement of females in village level rituals and ceremonies indicates that they had indispensable role to play in socio-cultural life. In socio-religious sphere, female's role was not totally insignificant. The people still have several traditional deities who are propitiated by the females only. For instance, the deity for wealth is a female one and always worshiped by females only. Nevertheless, male deities overrun female deities by number and importance. Females did not form a part of several socio-religious performances at family level as well as at village level. History provides information that the tradition of extensive wet rice cultivation was introduced much later - around 13th century, by the Ahoms in the plains of Assam. Thus it could be taken for granted that a more stable food production system among the Sonowal Kacharis started after the interaction with the Ahoms. Ahom administration also introduced a lot of changes in socio-economic structure of its subjects - the Kacharis, Barahis, and Morans etc. Introduction of well defined monetary economy started towards the closing of the Ahom rule in Assam. But it did not immediately penetrate the Sonowal Kachari life ways in rural areas. People were turned to be settled as wet rice cultivators to great extent. This shift of economic activity (techno-culture) curtailed a significant amount of work from the part of women's role in food procurement. Subsequent induction of incipient monetary economy paved the way for marketing the goods as commodity and males inclined to attach with those works related to resource generation. It was equally true that shift of food procuring - from primary gathering to extensive or settled wet rice cultivation did

³ Vaishnava religion was propagated by Sri Sankardeva in Assam during 15th century AD. The tribal people of plains of Assam adapted Vaishnavism to some extent without fully leaving their traditional practices.

⁴ Refer to people who adapt Hindu religion.

not totally disarm women from their work spheres. The factual point was that the surplus number of working males reduced the women's involvement in agricultural activities to some extent and certain tasks that required more physical labour and mobility were vested on males. In the later half of the 19th century, exploitation of natural resources like coal, crude oils and petroleum products, tea and forest resources etc. by the colonial government paved the way for revolutionary inflow of monetary economy to people's life. British ruler introduced global market system transferring a lot of traditional products into commodities for cash income. Commercialization of goods and services had far reaching effect on traditional societies across cultures in the world. So also the Sonowal Kachari Society. This discourse of social phenomenon remains important in tracing out the process of engenderment among the tribal people who were gradually Hinduised for past few centuries. The colonial era was also characterised by the extensive exploitation of forest

⁵A Tai-Shan group of population who entered Assam in the early part of 13th century and ruled most parts of the present day plains of Assam for nearly six hundred years adapting a process of assimilation and adjustment which helped emerge a new nationality called Assamese in the state of Assam.

resources, cutting short the advantages of the tribal people who extracted a significant part of their livelihood from forest. Next to this was the imposition of rules and regulations on forest land and announcing forest as reserved forest made the situation further grim. Above all the land alienation system where the de-recognition of right on corporate land was induced, made the people totally disadvantaged and handicap in terms of economic aspects. The curtailment in utilization of forest resources and restriction of access to land resource did not come up with any alternative resource generating opportunity, especially for women. Rather, their works to which once they were attached with were devalued in terms of resource generation.

ii. Socio-cultural components

Historical accounts depicts that just before the advent of the colonial rule the people in Assam underwent turmoil in the socio-political life. The people in upper Assam came under the influence of civil war, a revolt against the Ahom royals. This movement was termed as 'the Moamoria revolt' which started from 1770 AD. A good deal of tribal people in upper Assam became the part of the revolt voluntarily or forcefully. The defeat of the revolted group caused havoc in settlement pattern of the tribal people. Oral tradition of Sonowal Kacharis indicates that they had to flee to different parts of the nearby hills and other inaccessible areas. This turmoil was further aggravated by three time Burmese invasions in Assam between 1817 AD and 1826 AD. Scores of people had to take shelter in different places of the region. After the establishment of the British rule these people resettled in newly clear felled areas. The new settlements were not similar to the earlier settlements because these people had to establish their villages neighbouring other communities like the Ahoms, Kalitas,

Koch and many others. Another characteristic change was the establishment of the tea gardens by the British companies in the lands probably once inhabited by the people before the Burmese invasion. Such inter-communal habitats necessitated adjustment and social identity. The colonial rule was also characterised by large scale influx of non-tribal people from other parts of the Indian sub-continent in search of newly opened up opportunities. Thus, a widespread admixture of social relation was bound to occur. This was the time when Assamese language, culture and Assamese nationality took shape in the state. In this new situation several tribal groups were attracted towards some sort of refined religious identities like Vaishnavism and eventually they had to leave most of their traditional practices and social norms. Social environment during the period was not very conducive, as new settlement required time for social adjustment. Ignorance and mistrust among the communities led to occasional clash and rivalry. Treading of women alone and frequently through other village premises was not a safe idea. Oral traditions have shown that barter and exchange system was very much prevalent among the tribal people. Pre-colonial period was not familiar with monetary economy in this region. Earning cash was a very hard job. According to Paik system of Ahom Rule the people used to get land for cultivation in lieu of their physical labour rendered towards royal families. This was also quite evident when the Ahom king expressed his inability to pay in cash to the British after the area became subject to them through Yandabo treaty in 1826. The initiation of monetary economy was a predominantly post colonial phenomenon in the state. We come across the system of taking wholesale right of crops garden of these people by the Sylhetias, the Bengali speaking people believed to be coming from Sylhet district of present day Bangladesh. These people were expert in climbing betel nut trees and orange trees and plucking fruits swiftly. They used to visit the villages before the garden crops like betel nuts, oranges, betel vines gets matured. They offer a lump-sum amount for the entire crops in the garden, some in cash and some in kinds. Another group of traders used to come to the villages to buy the muga cocoons (*Antherea assamensis*). As contrast to the crop traders, cocoon traders were mostly Assamese people hailing from Suwalkuchi of western Assam. They also purchased cocoon for cash and kind. The items exchanged for muga cocoon were various utensils made of bronze and brass metal and some times dress materials of non-traditional type. Thus, one could see that the tribal people hardly used to go out for a trade or market in those days. Outside market was unknown and inaccessible (non-familiar) to them. Rice was basically meant for familial consumption. In case of surplus gain, the paddy was sold in bulk to Marwari Gollas (Stores) situated at

⁶Marwaris are the business communities hailing from a place called Marwar situated in the state of Rajasthan of India. These people captured the commercial sector of the state and even spread their hands to the remote rural and tribal areas. They were the money lenders for kinds produced by the tribal and rural people.

a distant place from the villages. Usually the traders used to come to villages and take away such goods.

Looking into the involvement of both genders in these activities reveals that females' wholesome involvement was there in case of rice production and rearing of muga and edi cocoons. Nearly a half of the works were done by them. But in case of garden product females' involvement became lesser. Males also used to clear fell new plot of land for garden crops very often when such opportunities were available. In this process he had to be out of home for several days in a stretch and maintaining household chores was absolutely a females' job to take care of.

These delineations clearly show that females' participation in livelihood issues were very much present there and it was not replaceable by any means. Whatever earned in cash or kind was basically in front of the family members and at home only. Thus the females had a say on the pricing of the goods and services to some extent.

Case studies conducted among the older people revealed the better position of females in society. The quality of a male person was judged on his capability to produce enough rice and store it in granary and his ability to generate garden crops etc. It is needless to say that those procurements were directly based on availability of land resources which was mostly available in those days. Involvement of females in raising kitchen garden was quite common. Generating cash or kind was mostly seasonal. Thus, daily or monthly income concept was very much lacking among these people. Females' co-operation was a must in almost every sphere, directly or indirectly. This shows that translation of goods and services into cash or kind income was not rapid and males' involvement in this particular step was not so significant. Oral traditions of the Sonowal Kachari Society indicate how important the activities of both the genders were in social life of the people. A girl's ability to perform all the household works, shared cultivation works and food procurement etc were given importance during selecting a mate. Likewise, girls were charmed by a boy who was a healthy, laborious, brave and above all mild and having good temperament. All these ideas were expressed in Bihu songs and juria songs by the people, which were believed to be their earliest known oral tradition. A folk song sung by a boy says to his beloved 'you will transplant the seedling in the tender mud which I will prepare by tilling; you weave gamucha depicting big flowers in the loom that I will make'. The division and sharing of labour, mutual understanding, human quality and humour etc were described in those melodious songs of the people. Individualistic ideology and relative freedom in determining own life ways was more prominent among the people in past years as compared to other non-tribal people surrounding them. In course of selecting life-partner the boys and the girls were very much independent, had free mixing opportunity and the opportunity to understand each other in an effective way. The ability to work hard in the field and to run the household etc. were the criteria of being a successful in-law and in almost all cases girls contained all these characteristics.

B. Society and Gender system in Stage Two

i. Transformation of traditional economy to monetary economy

By early 70s the monetary economy had well penetrated the Sonowal Kachari societies in Assam. A very significant change was the scarcity of agricultural land in this period of time. The tribal people were practicing the clear fell of new land areas very frequently and used to establish new pahams to grow crops. But due to the restriction imposed by the government to acquire forest and wet land, the people had to confine to their original villages only. This has invited the problem of population pressure on the limited land and resources. In most of the cases the families became unable to dispose rice grain for cash or kind as they used to do earlier. This necessitated outward movement of people, especially the males, for cash income. But tribal people were categorically reluctant to enter into business and any other entrepreneurial activities. Investment of any form for profit making was the rarest phenomenon for them. Thus, the only front opened for them was getting a job of some kind. Usually, tribal villages were situated at far away and relatively inaccessible places from urban centers. Thus, it was only the male members

⁷Primary spring and harvesting festival celebrated by tribal as well as non-tribal Assamese communities across the state during the month of April. Folk songs are sung during this festival which carry the meaning of youthfulness and vigor.

⁸Songs sung during Bihu and other occasions describing different aspects of life, condition for agrarrying for love and life etc.

⁹New and temporary (likely to be permanent) settlement established to cultivate in newly clear-felled plots of land by a group of people of a village or people from several villages.

who dare to come out to interact with non-tribal and urban domains. Projecting male children as prospective cash earner was a basic feature for these people.

The famous Assam movement on foreigners' issue had an impact on the villages of remote areas. The Sylhetias and other non-Assamese traders stopped coming to villages as a result of prohibition imposed by the agitators like All Assam Student Union (AASU). Instead of the outside traders, the village youth themselves started marketing their agro-products and poultries etc. This has again curtailed a female's access to cash income directly as the market places were usually situated at a far away places and females were mostly prohibited to go there to sell their belongings.

In agricultural front, the harder physical tasks were usually carried out by males. These include tilling of land with bullocks and plough, hoeing and harrowing, fencing, carrying seedlings to the field, and bringing back home paddy bundles etc. On the contrary, women carried out the works that were more time consuming and continuous like uprooting seedlings, transplantation, harvesting of paddy, thrashing paddy, winnowing and de-husking of paddy etc. Fetching firewood, fishing etc were also male work. Males' jobs were seen as the most important and hardest, while females' works were seen in a lighter way. Males always dispose the end products usually processed by females.

Transformation of goods and services into cash, the most important job, was done by males and hence men's involvement was unavoidable and there was no alternative to it. Thus, females' role in entire process was seen as subordinate to males' work and as a lighter one.

As a welfare measure, the tribal villages were provided with roads and connected to urban localities as well as with market places by government agencies. But this measure was hardly associated with transport services like bus and goods carriers etc. The male members were surely advantaged lot as they could use bicycles to transport their saleable goods to market in an easy way. Otherwise also male person used to carry their product on their shoulders for miles. This was also contrary to the scope of the female's involvement in marketing of their goods and services. There appeared the process of

¹⁰ AASU launched a state wide agitation from the year 1989 onwards demanding identification and deportation of foreigners entered Assam over a period of time. The agitation made a categorical change in the socio-political underpinnings of the state. The agitation continued for long six years.

gender sub-ordination in the society following such situation. Some of the aspects of such happenings have been depicted in the following paragraphs.

ii. Gender System in some Social Spheres

Gender ideologies prevalent in a society influence either gender in different ways. Some spheres of day-to-day life like health, education and economic activities can be assessed in a gendered world for gender specific behaviour and action. Following are some of such queries in the respective fields. These data were generated during the field work to fulfill the requirement of Ph.D. Degree around 1991 to 1994. Besides, the author had the opportunity to observe the changes taking place over a period of time in terms of gender relations in their society. The data depicts the gender specific role of people during the middle stage as defined for the purpose of the paper.

iii. Gender and Household Health

Health care practices among people of tribal society depend on traditional system of health seeking behaviour as well as access to education, health care facilities and financial situation. Gender ideologies many a time determine the balance of health care towards a particular gender.

The study conducted among the Sonowal Kacharis indicates that there is a trend among the literate people to accept modern health-care practices. It was seen that women's education had some positive influences on the health care practices. It was seen that higher the women's educational level, the greater the possibility that they would attend the health care centers during their own disability. An educated woman had the idea and also the courage to go to the health clinic without the help of a male (e.g., husband) guide. This empowered women to take her own decision concerning date, time and ways and means of her attending a medical check-up centre or for treatment. On the contrary,

an illiterate woman possessed a vague mind, fearful to take an otherwise clear decision, expressing apprehension everywhere. Education thus helped summon up courage and provides incentives. It had been revealed that a low educated or nearly illiterate husband was apt to follow the suggestions given and interests evinced by the relatively high educated wife. On the other hand, husband's education was not strongly related to woman's (wife's) good health-care practices. Very few women's husbands accompanied their wives to the health-care centre during their difficulties. It was revealed that the people had certain notions regarding husband-wife relationships. The males used to think that they should not attach themselves to or get concerned too much, about their wives which might lead them to become henpecked, a status that was very much derogatory. Rather, the husband would like to seek help from other women of the village to accompany the wife to the health-care centers.

The study revealed the fact that there prevailed several traditional views on health of different genders. The prevailing notion was that none should be easily concerned with common ailments especially both young males and females. The general conception was that the more one was concerned with illness the greater was the sufferance. A woman was an ideal one provided she could give birth to a good many children without any sign of physical disability. Most husbands would like to have delivery at home only. Women themselves also did not like to go for periodic medical check-up unless the trouble was acute. Compared to overall nursing of women at home or elsewhere, a male would receive utmost care and nursing from his wife and other womenfolk of the household.

It was interesting to note that most females belittled their own health compared to their husbands. The female folk of a household felt duty-bound to ensure safety and welfare of the other family members, especially the males. It was worth noting that males' demands were sought to be fulfilled even at the cost of the female's own health. Most males' demands were rooted in the gender division of labour and work-role perception of the people. It was well-known that the young girls' disabilities were closely guarded; all their maladies were treated secretly. At times it was difficult to maintain secrecy and for fear of exposure most feminine disabilities went without treatment. These were also not discussed with not close relatives, lest they should get widely known. In case of married women such disabilities were, however, discussed with the husband especially when treatment was to be done by some unknown persons. In case of the female maladies the women folk did not take the males into confidence thinking that they knew little about such ailments. People in general did not entertain any idea of limiting family size. Again the people in general liked to have four to five children. If the number exceeded, it went to the credit of the woman concerned. The tendency to have a male child was much strong for both the parents irrespective of their level of education and economic status.

It was found that parents were more concerned over a son's health than a daughter. It was more so if the child was the only son of the parents. Every woman used to think that

husband's (or males') health was more important than women's. The reason of this thinking did lie in the fact that a woman could not generate required livelihood without the assistance of males. She could not till land and so could produce nothing consumable or salable for cash income. A son was the asset of the family and the future old age support of the parents. Daughters were never seen as the family member after marriage. Due to these reasons a male was given more importance, especially by the women as a whole, and so also males' health care was given top priority. Males themselves never used to think that their own health was more important than the females'. But they used to get the maximum nursing from females on demand or without demand. The reason why a female used to feel duty bound to other family members did lie in multiple socio-cultural facts. Above all, these were rooted in gender division of labour and power of control over the means of production and reproduction. There was a significant relationship between high family responsibility and high work involvement during the period when a woman needed rest and care, for instance, in illness and pregnancy, in seasonal indispositions etc. As the people were cultivators, they had a lot of work loads irrespective of gender which could not be minimized with the help of higher level of education or awareness. In a gender-segregated work sphere, the women had to do their part as far as possible ignoring their own health.

It was found that among the low-income group, the women i.e., the mothers hardly had the intention to treat their own health problems. Rather, they preferred, with their limited capacity, to treat the male counterparts and the children. It was also found that high income and high education together helped females go for better health care. When the spirit of better health care prevailed among the people, high economic condition worked as a positive catalyst and low economic condition negated it.

iv. Gender and Education

Availing education requires distribution of money, readjustment in work spheres and lot of motivation from the part of the students as well as providers of such opportunity, the parental groups. Gender ideology present in the society is likely to determine the extent of education to be received and the way and nature of its accumulation etc.

Parents were, excepting in few cases, less interested in daughter's high education. This notion was well expressed in the opinions of the aged parents. The parents who were educating their daughters thought that passing out High School was the sufficient level of education a girl should have. Parents' opinion showed that they never expected that their daughters would be able to earn money by joining some white-collar jobs as an output of the school education. Educating a daughter had more than one goal: these were to have a good groom and to make them capable of teaching their own offspring. Along with this trend they caught hold the view that every girl should be adept in traditional folkways of life -- the arts and crafts etc. And for this reason, right from the very childhood they were engaged in

multifarious household works irrespective of their educational achievement.

There was also evidence of illiterate but conscious mothers who were taking utmost care and all the pain to educate their children. When we gauge the tendency of the parents to make their children free from work-spheres we find a negative notion on the part of the parents. They most often prefer their children working in the field during planting and harvesting season to schooling. The involvement of girls in the work sphere is always more than the boys. Parent's interests in girl's education can be seen to be negative when the infra-structural facilities provided to them are assessed. The time spent by a girl in the farm or domestic work is always greater than time spent by the boys. Another aspect of the educational life of the children is the parents' least control over the boys compared to that over girls. The gender-stereotyped notion plays a vital role in girls' work load during study periods, irrespective of the education level of the parents.

It was also revealed that when parents had limited resources to provide and there was demand from both genders the males were the advantaged one. There was also difference in the content of the education between these two genders. It was seen that the males had the option to go for science stream whereas females had no choice but for going to Arts regardless of their level of achievements.

In dire economic condition and prevailing socio-physically incompatible conditions, the girls were the worst sufferers. That was because; the girls could not have tuition owing to the non-availability of teachers nearby, whereas the boys could go far away places for it. Moreover, the girls were obliged to do certain works in the morning and in the evening hours essentially for which they were bound to remain indoors most of the time. The gender-stereotyped notion debarred them from riding a bicycle also. Moreover, they were not expected to travel long distance alone as there was fear of sexual abuse.

In the introductory part it has been well depicted that the notion of gender and economic activities are very closely related. Access and rights to different resources are mostly determined by the existing gender role expectations in a society. The division of labour, distribution of resources and control over resources are always attached to either gender in a gender differentiated way. In this light a study was conducted to see how the society was gender differentiated in the work role expectation and economic front.

v. Gender System in Economic Activity and Property Right

The Sonowal Kachari people strictly differentiate themselves on the basis of gender identity. In Sonowal Kachari society if a male person's behavior and work role resembles that of a female he is termed as maikimua, a term highly derogatory for males. The children are socialized right from their early childhood to internalize a particular gender identity. Male children are inspired to follow the male roles whereas the females are drawn towards the mother. In their games and recreations, and sports also a

distinct gender differential behaviour is seen prevail among the children. It is also seen that the people do not have any gender specific term for male and female children. The people are also found having the notion that the old persons are equal to the children. It is a common practice among the people to make a joke implicating the grand children as husband or wife of the grand father or grand mother. Thus it is seen that the people recognize gender in terms of the act of reproduction. The children are seen as immature enough to procreate and thus there is no gender differential term among the pre-pubescent children irrespective of sex. Rather, the people use the same term to refer to a boy or a girl. Persons whose children have children are not expected to reproduce and thus termination of reproductive trend equates them with the children of pre-pubescent age. It was tried to examine relationship between gender division of labour and males' control over the means of production and reproduction. It was found that males always controlled the end products of the major income generating resources. In most of the income

Maiki is equivalent word for female and mua means similar. Thus the term refers to a male who resembles a female by nature.

generating processes the females, too, did a lot of works, at times more than males. Their participation was essential in most of the income generating works. But they lacked the opportunity to have income from it. They controlled little amount of resources, and in most cases the married women did not have absolute right over their own money. Dominating the market economy, the males held the power and authority for reallocation, distribution and redistribution of output of the products. It was also worth noting that when the surrounding extra domestic world had made a shift from traditional life ways to market economy to certain extent the very core of the Sonowal Kacharis did not change and thus the women did not find suitable environment to enter in to new resource generating work spheres. The traditional life way of the women did not permit them to involve themselves in market economy, and they had to depend on males for final outputs. Males could generate money which was the most important need for livelihood. Women were confined mostly to domestic and non-productive works. Thus, males could assign value to their own works. This idea was very important in understanding or constructing gender specific model in that females' non-productive (in terms of cash income) works were given less value or no value as compared to males works and, as such works were attached to females only, they were looked down upon by males as less important entity in the sphere of income generation. This structural framework of domestic /public distinction of work sphere (which was directly related to income generating activities) provided males with power girl is not permitted for active participation. These and such other evidences make the hypothesis valid and it can be concluded that among these people the females are not enjoying a favourable socio-cultural life.

To make work role performance of both males and females understandable, the Chat - I has been developed. It shows

and authority over the females who engaged in less valued works. This held good for conceptual framework to understand the root cause and process of engenderment among the people when one thought of the social situation that became current right from the exposure of the people to the colonial rule. Equation on the value placed on the works done by males and females are not explicitly expressed in people's behavior. Rather, it was inherent in their perception. But women's submission to males by doing .disproportionate (measured by quantity and time spent) works in farm and at home showed that women's work roles were perceived as unequal and contained lesser value to men's work. It was seen that the females always would do a disproportionate work among these people. It was not very clear whether a woman used to do all these without any grumble due to the fact that she thought herself to be duty-bound to the husband or the other family members, or whether it was just the result of the socialization process through which she categorized the work roles as hers. The females supported both the views to some extent. They said that they did all these as they were female and these were their works only. On the other hand, they said that men did a lot of hard works which a female could not do and nor was a female expected to. Males needed rest and comfort which could be provided by the females only. Most often it was reported that the males as husbands spoke roughly regarding their so-called non-expertise to run the familial works smoothly to the full satisfaction of the males. There was evidence that a male, usually the husband, demanded services from the wife after his day's hard work ignoring the fact that the woman also worked the whole day in the interest of the family. Contrarily, a wife was never expected to lay such a demand to her husband at any rate and if even rarely it happened the husband is simply regarded as a henpecked one. There exist among these people some socio-religious restrictions to segregate women from the right on parental property. People follow some religious norms regarding the girls' participation in some spheres. By this way, really or symbolically the people restrict the unmarried girls from entering into certain economic activities. That pubescent unmarried girls are not permitted to enter the family granary, or to touch the store etc. are significant enough to refrain them from availing themselves of power to inherit or make decision on parental property. But symbolically the girls are thought of as the sign of wealth for the family. On the other hand, a girl is never allowed to worship ancestors even in the absence of a male child in a family on the ground that by doing so she would be entitled to inherit parental property which is against a normal family code. That a married girl is detached from the parental family is seen in the observances of certain rituals where the married the primary work spheres prevalent among the Sonowal Kacharis and role played by each gender in it. The Chart also reveals the nature of output and its utilization aspects. The Chart clearly shows that in most of the work spheres, whether it is income generating or otherwise, the involvement of females is always there in different extent.

Chart- I
Nature Of Work Role Performance By Different Genders

WORK SPHERES	NATURE OF INVOLVEMENT	WORK DONE BY	UTILITY OF PRODUCT
RICE CULTIVATION	i) Tilling land	males only	i) food item for family consumption ii) rice as commodity for sale
	ii) uprooting seedling	females only	
	iii) carrying seedling	males only	
	iv) transplanting	females only	
	v) weeding	females only	
	vi) reaping	females only	
	vii) carrying paddy	males only	
	viii) Thrashing	females only	
	ix) winnowing and de-husking	females only	
GARDENING	i) tilling and hoeing	males only	i) family consumption ii) cash crop
	ii) putting fertiliser	Males and occasionally females	
	iii) planting	males only	
	iv) watering	males and occasionally females	
	v) fencing	males only	
COCOON REARING (<i>Muga</i>)	i) purchasing seeds	males only	i) Cocoon usually for sale
	ii) tying moth	males/females	
	iii) protecting from ants and birds	males/ females	
	iv) collecting matured larva	males/females	
	v) detaching matured cocoon	males/females	
COCOON REARING (<i>Edi</i>)	i) select seed	females only	i) warm clothes for familial use
	ii) tying moths and caring eggs	females only	
	iii) collecting leaves	males/females	
	iv) providing leaves	females only	
	v) collecting matured larva	females only	
	vi) processing cocoon	females only	

Contd...

WORK SPHERES	NATURE OF INVOLVEMENT	WORK DONE BY	UTILITY OF PRODUCT
REARING FOWLS/ DUCKS/PIGS	i) providing shelter	females only	i) consume at home ii) use in rituals iii) commodity for sale
	ii) caring and protection	females only	
	iii) feeding	females only	
WEAVING	i) all	females only	i) for family and individual use only
CLEANLINESS	i) cleaning cow shed	females only	i) Meeting familial needs
	ii) cleaning and sweeping houses	females only	
	iii) washing clothes	females only	
	iv) washing utensils	females only	
PREPARATION	i) cooking food	females only	Meeting familial demand Meets social demand Liquor for usual consumption As commodity for sale
	ii) tea and breakfast	females only	
	iii) entertaining guest	females only	
	iv) preparing ceremonial items	females only	
	v) preparing liquor	females only	
CATTLE KEEPING	i) feeding and caring	males only	i) for agricultural use
FISHING	i) nearby place	males/females	i) consume at home
	ii) distant and deep	males only	
FOOD COLLECTION	herb collection	females usually	Consumption at home
	others	males	

On the basis of Chart I, the next Chart has been prepared. Here the activities that could generate income (cash mostly) has been taken into account. The Chart also tries to show what part of the work in each case was done by either gender. It becomes evident from this chart that women do a

major part of all the income generating works. But they hardly get benefited from sharing activities. Marketing of finished goods are always done by the males in almost all the cases and the earning is controlled by males.

Chart – II
Share of Work roles, Marketing and Control of Income

Commodity for sale	Gender involved in selling	Nature of involvement	Pattern of output	Number of works done by males/females	Control output by	Utilised output for
Rice	Any male person	Takes to market	Cash	3/6	Male (head)	Family expenditure
Garden crops	Male who works	Takes to market	Cash	5/2 (shared)	Owner male	Family expenditure (if father) else personal
Liquor	Female	Sell at home	Cash	0/all	Female involved	Family expenditure (if mother) else personal
Poultry	Any male	Takes to market	Cash	0/all	Owner female	Family expenditure (if mother) else personal
Cattle	Any male	Takes to market	Cash	shared	Male head	Family expenditure
Cocoon	Male	Sell at home	Cash	5/4 (shared)	Male head or person involved	Family expenditure (if father) else personal

C. Gender System Revisited: Society and Gender system in Stage Three

A more recent observation of the studied people in contemporary days reveal a lot of changes in gender ideology and gender differentiation in their social milieu. A brief study among the people reveals that there appeared some categorical changes in infra-structure facilities, social environment and resource generation facilities. These changes have led to the change of notion about gender relation in their society.

The first and the foremost is the changing nature of job market and economic activities. Production of rice has been severely affected by an artificial canal dug through the paddy field to flush out the water from the nearby township. This resulted in the overflowing of water and flooding the paddy fields very often for which production of rice decreased a lot. Rice cultivation no longer remained a primary source of subsistence. Secondly, increased price of essential articles of day to day life could hardly be equaled with the relatively lesser price of rice and other garden products. The old orange and betel nut gardens no longer remained viable source of cash income for the people. Thus the devaluation of agro-products was rampant in the area.

Next, government agencies no longer remained the frequent job provider for the aspirants and educated males. Government policies for not recruiting people in vacant posts severely affected the job seekers. Thus education with special attention to male children became a non-productive one. Given the better communication facilities the girls emerged as better students in terms of passing out the High School examination. They could further go to the colleges

without staying in hostels or so. Welfare and development schemes have been initiated by government agencies where the educated girls could take a share. Grants and loans for entrepreneurship development attracted the educated females to a great extent. Several private ventures have been coming up in the region where both males and the females are finding a place for job involvement. Buying things, visiting government offices for different purposes, visiting health centers etc by no means remained a male's job. Females have come up as better option for such activities. Such outward movement also created a sense of gender equality to a great extent and it is evident that there emerged a change in gender ideology and work role perception among the people.

As has been stated elsewhere in this writing, the young generation has taken the lead in almost every sphere of socio-political domain; there appeared a congenial social environment among the villagers and neighbouring communities. This has happened especially after the famous Assam agitation on foreigners issue between the years 1980-85. There exists no more fear of physical and sexual abuse for the girls for treading through these villages. Increased and liberal interaction has been very much evident among the young generation and a sense of oneness has been in construction in the area. This has given the women a more mobility cutting short several gender specific inhibitions and restrictions existed earlier. Another new trend that helped cut short gender sub-ordination in terms of involvement in cultivation activities is the use of machinery in tilling land. This has cut short the dominance of males in tilling land to transplant. Now, by paying money even a woman head of a family can get land prepared for transplanting without male

person's help. Due to better transport and communication facilities several local males entered into the business of selling poultry and garden products available in the villages. They frequently visit the households in search of saleable products and buy them cash in hand basis and sell them in urban localities for profit. This has also curtailed the role of male person in the household as the sole disposer of finished goods for cash. Now females can dispose these items from home for cash without disturbing the assigned role of household chores. Now, parents have dared to say that a girl child is not less worth than a male child. This way there flourished a new trend regarding education of children. A male child, if he does well in school, is encouraged to go ahead. But in case of his difficulty in passing out examinations, parents do not pressurise him. Instead, he would look for some income generating option at the cost of his further studies. Now, getting a job after school is a remote possibility. So people have least interest for higher education for boys. In case of girls, parents feel that they should be educated as much as they can to get a white collar job if possible. Girls are hardly encouraged to involve in trade or business at the cost of their study.

III. CONCLUSION

Working of gender system is very much related to the work role available in a society. When the tribal society was in a balanced way and also must be translated to the people concerned in a meaningful way. opened to the non-traditional world we see a lot of rearrangements in gender system. Development of certain kind and the open-up of market are very much related to the process of globalization in a broader perspective. Such aspects have been translated to the tribal domain as devaluation of their traditional means of subsistence as well as scarcity of livelihood resources. Traditional inhibition in entering in to the entrepreneurship monetary economy, development of urban localities and contractual relation of these people with the non-tribal domain has increased the requirement of people day by day. Cash income became the primary determinant of the economic health of a household. Extra domestic chores were opened up for the males following the uncongenial social and physical environment for females. Females confined at domestic chores and their works were marked as non-productive. Thus, along with the devaluation of females work the gender identity related to them also devalued and gender sub-ordination surfaced in the society. This is quite a common character in the 'Stage two'. The Chart shows that during the 'Stage two' women used to do a lot of work ignoring their own health status and try to fulfill the demands of the other family members. This happened because the women in the society perceived some expected gender ideological work roles as their own and thus felt duty-bound to satisfy other's demands. Due to this notion the women had to do most of the household works and had to be confined at home only. As this aspect of home bound ness became an established notion, people perceived the idea that they need not have higher education as education was not necessary to do household works. For this reason the girls

development and searching for innovative ventures for livelihood remains a tribal bias. This sort of incompatibility leads to social maladjustment within the society. Development also denotes the improvement of infrastructure as well as social environment. And we see when such developments are transferred to the people in a meaningful way society changes towards a desired better way. In this delineation we can notice how a traditional society maintains a relatively healthy gender system when there was no external agent of change penetrates the society. In the same way we see how the entry of new aspects (monetary economy etc) can disturb the very core of gender system creating hierarchy and related negative aspects in a society. But, social aspects are not stable. They change over time. In this case also we see a trend of change in gender system with the changing aspects of surrounding environment. Thus, one can safely argue that development must be there. On the basis of the findings the working and maintenance of gender system in the Sonowal Kachari Society through ages is presented in Chart III. It shows that the Sonowal Kachari society has been a gender biased one. So far as the studied spheres are concerned, it is seen that all the three spheres are interrelated. But we see different dimension of gender specific behaviours in different time period. These differences are surely the product of changes introduced in their social, cultural, physical and economic environment. The chart shows that in olden days the notion of gender was not influenced by the notion of job hierarchy in terms of cash income or priority basis. Gender division of labour was very much there, but the hierarchy or specific value put on the particular work was not very prominent. This was due to the fact that the notion and requirement of cash income was not very prominent in those days. They could fulfill a lot of their requirement for cash income at home by disposing their garden products as well as cocoons etc. Influx of were debarred from being in the sphere of higher education. Again, females placed higher value to males' health and they used to think the sons' very physical presence in the family and their health and comfort as more important than their own and daughters' health. Thus they used to do a lot, provided services and went on giving birth to children in the expectation of a male child. This trend was in existent because, the work spheres were segregated in such a way that to generate livelihood, males' constant presence was unavoidable in the family. Sons were thought of as the asset to the family and the clan and they were also thought of as the old age support. Females were never seen as earners. Thus males were given priorities for higher education to go for white-collar jobs. It was seen that husbands ignore wife's health status and pain of work involvement and demanded pleasure and enjoyment for their own self-asserted hard works. This trend prevailed because women hardly earned livelihood and their works were devalued to a certain extent. So, as they were attached to insignificant works, males perceived them as inferior and enjoyed the opportunity to show that their works were more value oriented and for this, females had to satisfy males providing them with service and pleasure and also doing disproportionate labors. In the

same way the females were thought of as unfit for any white-collar jobs or extra-domestic work and males had the opportunity to exercise control over them. And by earning cash income the males could command control over female's labour and services. It was also seen that women hardly got the decision making power in the spheres of spending money in health care activities that could harm their health a lot. This trend was in existence on the logic that women were never thought of as being earners or custodians of family assets. The girls were debarred from inheriting the parental property by means of some cultural codes. In no point of time thus a woman received a substantial amount of money for her own interests. Males' dominant behaviours were legitimized in the Sonowal Kachari society through the process of engenderment. It is the way of enculturing the people and through which the females accepted the

submissiveness to the males. The overall result was that the males had the tendency to dominate over the females and in this way the gender system stability was maintained among the Sonowal Kacharis.

The Chart also shows a categorical difference in the gender relation in the present day situation (Stage three). As the chart shows, females are now involved in extra domestic chores, they are more aware of their health and self beings, they have been equal in many spheres of life -- educational achievements, competing for jobs, going for extra-domestic activities and many more. The changed social, physical and economic environment has influenced the gender relationship to a great extent and we see a trend towards a gender equal society among these people in many spheres of life.

CHART – III
Continuity and Change in Gender System

Levels of Investigation	Stages of observation	Areas of Investigation in Gendered World		
		Household Health	Economic Activities	Education
Observation Level	Stage One	Females seek rest during illness/ pregnancy	Fixed gender division of labour to serve the entire family by both genders.	Need of education for female not felt. Working outside traditional domain not attractive.
	Stage Two	Women duty bound to work during Illness and Pregnancy	Work as duty for women and serve to males by doing domestic and non-productive works disproportionately	Females likely to be less Educated as ones being confined at home
	Stage Three	Females demand rest during illness/pregnancy	Involved in extra domestic and productive work role. Work as means of livelihood	Females invariably sent to schools. Do better in school examination.
Level of Perception and Action	Stage One	Both gender's wellness important if situation permits	Little value on cash earning. Earning at home. Males important for heavy works.	Few males educated to certain levels. Aspiration for job not dominant.
	Stage Two	Males' health more important: special concern to sons: birth of children in expectation of more male child	Earning of livelihood by males: Male child as old age support to the parents	Males as white collar job holder: Higher education for males
	Stage Three	No way males advantageous; mostly equal value to children of both genders.	Both genders can earn livelihood. Females may also be old age support.	Females as preferred white collar job seeker if available. Males take on cash income as and when opportunity comes at the cost of higher education.

Contd...

Level of Interpersonal (Gender) Relation and Action	Stage One	Husband/males tries to compensate loss of work by other means	No differential value put on any work.	Least requirement to enter into non-traditional extra domestic work.
	Stage Two	Husband's ignorance to wife's health: demands of pleasure and service from wife	Devaluation of females' work raising males' value in society	Males' opportunity to enter into non-traditional extra-domestic work spheres
	Stage Three	Females take initiative for own betterment/compensate work lost in other means	Involvement of females in male's work sphere making males not unique entity.	Both genders capable to compete for same opportunities at extra-domestic level.
Level of Socio-cultural Action	Stage One	Males provide relief to women by some other means	Both males and females are important in terms of livelihood domain. Lack of concept of property transfer.	Males earn some cash income with mutual agreement/understanding with female counterpart.
	Stage Two	Females' lack of decision making power in the sphere of health	Females as non-earners lack of decision making power: No entitlement to parental property: Segregated by means of socio-religious codes	Males solely attached with Cash income
	Stage Three	Women take decision. Make male person responsible to seek health care for them.	Females as real or prospective earner can influence familial decisions. Entitlement to parental property if no male members exists.	Both genders capable of earning cash with slightly male advantage.
Level of Abstraction	Stage One	Strong gender division of labour exists without hierarchy and value put on work role of either gender. No marked gender sub-ordination noticed.		
	Stage Two	Cognitive categorization of gender identity and inequalities in terms of value put on works done by either gender. Gender specific work role expectation and perception of gender specific behaviour by either gender. Visible practice of gender Sub-ordination		
	Stage Three	Reduced gender division of labour in certain male dominated domains. Values put on work role of either gender heads towards equality. Trend of gender equality in most social spheres visible.		

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Gender-Stereotypes Belief and Practices in the Classroom: The Nigerian Post-Primary School Teachers'

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Abstract-This study explores the gender-stereotyped beliefs and perception of secondary school teachers' in classroom practices. A total of 250 teachers' participated in this study. A self-administered questionnaire was used to generate responses from teachers on how gender-stereotypes are played out in their classroom practices. Data were analysed using descriptive statistics, one-way ANOVA and *t*-test. Results indicate that most of the teachers surveyed directly or indirectly promote gender-stereotypes. However, ANOVA test revealed no statistically significant difference between some demographic variables and the three aspects. From these findings, it is recommended that teacher education curricula for both pre-service and in-service must be permeated with opportunities to acquire gender sensitivity knowledge, skills and develop attitudes in classroom layout, use of resources, responsibilities for activities, discipline, classroom language and teacher-students interaction. In addition, Federal and States Ministries of Education need to develop textbooks and materials, establish mechanisms to monitor and evaluate education policy implementation from a gender equality perspective.

Keywords-Gender-stereotypes, beliefs, perception, classroom practices, teachers

I. THE STUDY BACKGROUND

Wide gap between male and female has existed over the years and deliberate efforts have been made by the United Nations to address it. These efforts include declaration of a decade for women, which culminated in the Beijing conference of 1985, Education for All, Millennium Development Goals (MDGs) etc (UN 2000; UNDP 2001). CEDAW (Convention on the Elimination of all Forms of Discrimination Against Women, 1981) also criticizes the unequal treatment between sexes and the stereotyped way of teaching in educational system .Article 4 and 10 are the basic ones that support its thesis strongly. Article 4 proposes temporary affirmative action to accelerate de facto equality between men and women. Article 10 states that, " in the field of education, State Parties shall take all appropriate measures to ensure: the same conditions for career and vocational guidance, access to studies and earning of diplomas; access to the same curricula, teaching staff and standards; the elimination of stereotyped concepts of the role of women and men ", the same opportunities for scholarships, the same access to continuing education, sports and physical education. One of the challenges of

contemporary society and the educational system is to address the gender inequality in the social systems. Thus schools and teachers at all levels have a key role to play in developing a gender-sensitive future generation. Gender stereotypes exist in all human societies and in all human endeavours, professions, careers and institutions. It exists in home, schools, and workplace. The concept "gender" has been of interest to scholars and researchers in recent time, especially those in the field of social sciences and humanities due to its different connotation and misused in different media (Helgeson, 2005). Gender is distinct from "sex" and refers to socially constructed and not biologically defined characteristics of human being. It refers to the social construction of what is considered male and female based on socio-cultural norms and power. However, some scholars-(scientists and linguistics) interchange the word gender for sex to create the erroneous impression that certain barriers to progress are a matter of nature, whereas they are manifestation of nurture, i.e. socially constructed and therefore subject to change. Hall, *et al.* (1988) defines stereotypes as personifications which widely accepted and shared among members of a given society and are handed down from generation to generation. Fung and Ma (2000) asserted that stereotype is a subjective perception, which may be an intuition, a prejudice, an imagination, or past impression of what a person has been. From the viewpoint of Martin and Halverson (1981) gender stereotype is one type of "subjective perception of what a man or woman should be or how people should behave". Most of these stereotypes often described men as intellectually, competent, strong and brave, while women areas homely, warm and expressiveness, incompetent and passive. They portray the male as the strong, dominant person with leadership trait, one who works should outside the home in often-prestigious occupations, while female is usually portrayed as being subordinate and confined to the home (Fiske, 1993; Stangor & Lange, 1994). There are various types of gender stereotypes: self-stereotyping, school stereotyping and family/cultural stereotyping by gender.

II. THEORETICAL FRAMEWORK & RELATED LITERATURE

Reviewing the literature, the relationship between gender-role orientations and gender stereotype with some related variables has been discussed. Traditional theories of gender-role identification, which are Cognitive Developmental Theory, Social Learning Theory, Psychoanalytic Theory, Gender Schema Theory and finally the Power Theory, have

been given as a gender schema principle. Given that this study explores teachers' belief and perception of gender stereotypes in classroom practices, the theoretical framework relevant in literature is the theory of planned behavior (TPB). The theory has been empirical proven to the understanding and identifying belief-based factors influencing behavior and intention (Ajzen, & Fishbein, 1980; Ajzen, 1991). Focus has been placed on intent, as the immediate precursor to a particular behavior. This theory proposes that what an individual does is determined by personal motivation which is determined by attitude, social support and perceived behavioural control. If one can determine the elements that impact intention, then one can more accurately predict whether an individual will engage in a particular behaviour. Likewise, it proposes that by changing an individual's perceptions of potential outcomes, one can alter the individual's intent.

There exist rich source of empirical work on gender and gender related issues. However, most of these research are conducted in developed countries and has been preoccupied with gender-stereotyped and school system, gender-stereotyped and career or in workplace, gender-stereotyped in textbooks and gender-stereotype and students' achievement and performance (Leder, 1992; Watt & Bornholt, 1994; Powell, *et.al.* 2002; UNESCO 2004; White & White, 2006); or with theorising about gender and appropriate strategies for incorporating gender studies in teacher education (Eagly & Wood, 1999; Burgess & Borigida, 1999; Eagly, *et al.* 2000; Diekman & Eagly, 2000; Subrahmanian, 2002; Marshall & Arnot, 2008; and Lopez-Saez, *et al.* 2008). Tiedemann (2002) study analyzes effect of teachers' gender stereotypes on their impressions of their students' competence and effort in mathematics. He reported that teacher perceptions were consistent with stereotypes of gender differences. This bias in teacher perceptions of their students' resources in mathematics is related to teacher's gender role stereotypic beliefs regarding the general distribution of mathematics talent between boys and girls. Jones and Dindia (2004) in their meta-analysis study examine patterns of sex differences in teacher-initiated teacher-student interactions found that that teachers initiate more overall interactions and more negative interactions, but not more positive interactions, with male students than with female students. In Africa and Nigeria in particular, there is dearth of research on gender and gender-stereotyped issues. Among the few available researches are (Davidson & Kanyuka, 1992; Erinosh, 1994; 1997; 2005; Ogunyemi 1997; Oseni 1999; Azikwe, 2002; Aladejana, 2002; Mkuchu 2003). Aladejana (2002) found that the Nigerian Integrated Science Curriculum for junior secondary school contain more activities that favour boys than girls creating gender equality in learning in the classroom. Erinosh (1997) analysed 76 science textbooks and reported great disparity in gender representation. Of the 2995 pictorial illustration 63.2% were male while 36.8% were for female. A total of 13,506 generic words (noun/pronoun) found in the textbooks, (10211, 75.6%) of these were male and (3296, 24.4%) were female. Ogunbanwo (1998) textbooks analysis

found that all the eight textbooks were authored by male. Males were cited in greater number than females in the use of generic words, pictorial illustration and in occupational role. She observed that female's were portrayed as traders, hairdresser, and secretary, while male are depicted in skillful profession like doctors, scientist, engineer etc. Other studies, which have investigated the manner in which male and female characters were portrayed in books, include Etim (1998) who attempted to find out if selected texts/ reading materials used in English Literature classes in Nigeria were male and female centered, and if traits given to male and female characters were stereotyped. It was reported in the 15 books selected the ratio of males to females was roughly 4:1; females were in a very few roles and activities and their characters were not well developed. Suggestions were also included for improving content of materials offered to secondary school students in Nigeria by increasing the number of female figures and revising the presentation styles of their characters in those materials. Gupta and Yin (1990) argue that school texts are a major agent of socialization in Singapore. In this study, the representation of females and males in two English basal texts used in Singapore schools were examined. Results showed that emphasis was on economic roles, relevant to Singapore's policy on females' substantial participation in the labour force. Imbalance was evident in showing only males in exciting situations, and with males being the possessors and females possessed. Boys were shown in active behaviors, girls in passive, and the importance of male characters becomes greater as the level of the reader rose. In related study, Subrahmanian (2002) found that teachers and curriculum in general reinforce social bias and discriminatory practices against women through the content and methods of teaching employed in schools. He observed that in Ethiopia and Guinea, girls spend more time in fetching water, cleaning classroom than they spend on other educational activities than boys. Biraimah (1982) study of teacher-students interaction patterns over a period of several months in a co-education secondary school in Togo, found that teachers had little regard for the ability, character and potential of female students. Teachers most often described their female students in negative terms with such as "disruptive behavior" or "lack of interest in school", while the male counterpart are acknowledged in positive word as "responsible", "hard working" and "scholarly". She also reported that female students did all the sweeping work before class; they were called upon more than their male counterparts to perform in-class maintenance tasks. From these review, it could be inferred that most study have focused on content analysis of textbooks and curriculum materials and gender differentiation in academic achievements while teachers gender-stereotypes beliefs and classroom practices have been neglected. However, it has become a priority to develop studies oriented toward understanding the nature of teachers and students classroom interactions. There has also been considerable interest shown and research conducted describing and analysing teachers' gender and gender-stereotyped related beliefs and

behaviour (Fukada, *et al.* 1992; Marshall & Reihartz, 1997; Sadker, 2001; Jones & Dindia, 2004; Razumnikova, 2005; Calvanese, 2007; Hoang, 2008; Lopes-Saez *et al.*, 2008). Research has indicated teachers' personal beliefs and stereotypical perceptions affect their attitudes and classroom practice. There has been a lot of research that has focused on teachers' different encouragement of gender stereotyping in the classrooms (Good & Brophy, 1994; Carter & Norwood, 1997) or teachers' unequal and different treatment by gender (Cahill & Adams, 1997). According to Sadker & Sadker (1982) many teachers operate with preconceptions about the skills, behaviour, and performance of girls and boys based on their gender. Cahill and Adams (1997) conducted a study to explore early childhood teachers' beliefs and attitudes toward gender roles. Their study found that while early childhood teachers express some openness to children exploring gender roles, teachers generally felt more comfortable with girls, rather than boys, exploring both male and female gender roles. A significant positive relationship has also been found among teachers' beliefs, teachers' knowledge and students' problem solving achievement (Peterson, *et al.* 1989). As a result of the reported positive relationship between teachers' beliefs and students' learning outcomes, and in order to improve the quality of teaching and learning, researchers should begin to want to understand teachers' viewpoints and how these relate to their classroom practices. Thus, this study examines teachers' awareness of belief and perception of gender-stereotyped practices.

III. RESEARCH OBJECTIVES

This study has three objectives to achieve. First is to gain a better understanding of teachers' awareness and perception of gender-stereotyped practices. Second is to compare teachers' characteristics with their knowledge and perception of gender-stereotyped practices. Finally is to determine the relationship between background variables of teachers and their knowledge and perception of gender-stereotyped.

IV. METHODS

The data obtained from population of secondary school teachers in Ogun State, Nigeria. A questionnaire developed by the author based on literature was administered to 250 practising secondary school teachers selected across the four educational zone of Ogun State, Nigeria. The questionnaire consisted of three sections: (1) demographic and background variables, (2) awareness of gender-stereotyped beliefs, (3) attitudes and practices towards gender-stereotyped. *Demographic and school background data:* This section included questions about teachers' background: sex, age, level of education, religion, school location, school type, class taught, school ownership, teaching experience and subject of specialisation.

Awareness of gender-stereotyped beliefs: This section assessed reported beliefs. Respondents were asked to state to what extent the statement reflect their personal belief out 10 gender-stereotyped beliefs, using a Likert-type scale with

five possible responses (1-strongly disagree, 2-disagree, 3-undecided, 4-agree, 5-strongly agree).

Attitude/practices variables: There were 19 statements rated on a Likert-type scale, with five possible responses to each statement (1-strongly disagree, 2-disagree, 3-undecided, 4-agree, 5-strongly agree). Examples of statements include "Teachers should encourage male and female students to carry out the same activities" and "My classroom practices encourage students to respect other gender", as well as "Teacher education programme should foster awareness of gender-stereotyped issues" and "I try to discourage gender stereotyped behaviour in my class." The internal consistency reliability alpha was .76 after a pilot test.

V. ANALYSIS

All returned survey questionnaire were coded on Statistical Package for the social sciences version 14.0 (SPSS), while answers to the open-ended item were transcribed verbatim. The awareness of gender-stereotypes beliefs and perception statements were scored with the responses progressing from one through to five for strongly agree (SA), agree (A), undecided (UD), disagree (D) and strongly disagree (SD) respectively. To ascertain differences according to teachers' characteristics - sex, age, marital status, religion, school location, school type, school ownership, educational qualification, year of experience and class taught the t-test and analysis of variances (ANOVA) statistics were employed.

VI. RESULTS

Two hundred and fifty (250) secondary school teachers participated in the study. Of these 121 (48.4%) were male and 129 (51.6) were female. 221 were from mixed school and 29 were from single sex school, 62.8% public school and 37.2% private. Majority of the respondents (83.2) claimed their schools were in urban (this is contrary to characteristics of the state which is largely rural), while 16.8% were rural. Respondents were asked to give their class taught, age, religion and educational background. Among the respondents 66.8% teaches senior secondary classes and 33.2% the junior secondary schools, Age of respondents varied from 18 to 41 years with an average age of 19.6 years. Majority 72.4% claimed to Christians and 27.6% Muslim. 53.2% respondents described themselves as married and 46.8 single. Respondents had an average of 10.5 years of experience in teaching. Nearly (37.2%) have bachelor degree in education, 21.6 with bachelor but in education. 14.8 had National certificate in education, 4.0 with OND and HND (14.2%) respectively while 8% possess a master. A five-point scale ten statements was used as a self-measure of teachers' gender-stereotypes beliefs. The findings are presented in Table 1. Overall analysis revealed that suggests that the secondary school teachers are largely aware of the gender stereotyped belief with about 90 percent giving an affirmative answer, however more than 64.8 percent acknowledged not interested in gender issues. Majority of the teachers accepted most of the gender-stereotyped views. An item and item analysis show some

inconsistencies in responses. For instance, only 64.8 percent of the respondents agreed to stereotype belief that “boys can handle pressure situations better than girls”. While only

37.2% agreed to the stereotype that “male are strong and female weak”.

Table 1: Percentage, Mean And Standard Deviation Of Teachers' Gender-Stereotype Beliefs

		SA	A	UD	D	SD	Mean	SD
1	Boys can handle pressure situations better than girls	37 (14.8)	130 (52.0)	10 (4.0)	58 (23.2)	15 (6.0)	3.46*	1.17
2	Male are strong and female are weak	21 (8.4)	72 (28.8)	28 (11.2)	99 (39.6)	30 (12.0)	2.82	1.21
3	Male students generally do better in mathematics than female students	20 (8.0)	56 (22.4)	11 (4.4)	70 (28.0)	93 (37.2)	2.36	1.38
4	Boys generally possess more scientific skills than girls.	26 (10.4)	99 (39.6)	17 (6.8)	74 (29.6)	34 (13.6)	3.03*	1.28
5	Females are better in reading than their male counterpart.	32 (12.8)	93 (37.2)	31 (12.4)	57 (22.8)	37 (14.8)	3.10*	1.30
6	Boys are naturally better at most sports	79 (31.6)	105 (42.0)	8 (3.2)	39 (15.6)	19 (7.6)	3.74*	1.26
7	Boys are more active and outspoken than girls.	63 (25.2)	93 (37.2)	16 (6.4)	46 (18.4)	32 (12.8)	3.43*	1.37
8	Girls are well dress and neat than boys.	30 (12.0)	95 (38.0)	28 (11.2)	65 (26.0)	32 (12.8)	3.10*	1.27
9	Men should be the head of the family	110 (44.0)	86 (34.4)	9 (3.6)	21 (8.4)	24 (9.6)	3.94*	1.29
10	Women's place is at home	25 (10.0)	51 (20.4)	25 (10.0)	75 (30.0)	74 (29.6)	2.51	1.36
Overall		443 (17.7)	880 (35.2)	183 (7.3)	604 (24.2)	390 (15.6)	31.5	7.23

* mean score above the neutral level of 3.0

Again, 30.2 per cent said, “male students generally do better in mathematics than female” while to the stereotype belief “boys generally possess more scientific skills than girls”. Other responses that are strikingly interesting include item 7 “men are better suited than women to work outside of the house” 62.4 % agreed with this belief. This is consistent with the reaction to item 9 “men should be the head of the family”, 79.4%. Again, it is surprising to find that only (30.4%) of the teachers agreed to the gender stereotype belief “women's place is at home”. When these responses were taken together, it suggests that teachers' hold more positive beliefs with male than with female gender. Evidence from Table 2 suggests that teachers possess positive attitudes and was favourably disposed to address

gender imbalances. Indeed, expect for item 2, all has mean scores above the neutral level of 3.0. The means of the responses ranged from 2.64 to 3.71, with an overall mean of 65.86. The findings reveal that, despite the variability in responses given, respondents generally agreed with all statements. Teachers have preponderance of attitudes towards gender-stereotype practices. More than half of the teachers either agreed or strongly agreed that “Awareness about the gender-stereotyped issues should be incorporated into all school subject” (58%), “Teacher education programme should prepare students to deal with gender-stereotyped and bias in classroom and schools” (64%) and they would “Teacher education programme should promote gender sensitive behaviour” (66.8%).

Table 2: Teachers Perception of Gender-Stereotyped Practices In Classroom

Statements	SA	A	UD	D	SD	Mean	SD
1 Teachers should encourage male and female students to carry out the same activities	56 (22.4)	141 (56.4)	3 (1.2)	26 (10.4)	24 (9.6)	3.71	1.20
2 Teachers should devote more time to encouraging girls than boys	27 (10.8)	61 (24.4)	12 (4.8)	95 (38.0)	55 (22.0)	2.64	1.34
3 Girls/women should be encouraged to enter traditionally male jobs such as engineering, medicine or architecture	45 (18.0)	102 (40.8)	18 (7.2)	37 (14.8)	48 (19.2)	3.23	1.41
4 There should be concerted efforts to raise students with a non-sexist orientation, at home and in schools.	51 (20.4)	122 (48.8)	13 (5.2)	48 (19.2)	16 (6.4)	3.57	1.19
5 Teachers should be involved in shaping their students' perceptions about gender roles.	55 (22.0)	141 (56.4)	20 (8.0)	23 (9.2)	11 (4.4)	3.82	1.02
6 Teachers should discourage students from acting out gender-stereotyped roles	45 (18.0)	84 (33.6)	19 (7.6)	70 (28.0)	32 (12.8)	3.15	1.35
7 Boys and girls should be given equal opportunity and not treated differently.	98 (39.2)	89 (35.6)	15 (6.0)	26 (10.4)	22 (8.8)	3.88	1.31
8 I use gender equitable language in my lessons	41 (16.4)	106 (42.4)	30 (12.0)	35 (14.0)	38 (15.2)	3.31	1.32
9 I obtain and use instructional materials which are gender neutral in my lessons	47 (18.8)	114 (45.6)	29 (11.6)	34 (13.6)	26 (10.4)	3.48	1.24
10 I try to discourage gender stereotyped behaviour in my classes	56 (22.4)	106 (42.4)	26 (10.4)	34 (13.6)	28 (11.2)	3.51	1.28
11 My classroom practices encourage students to respect other gender	58 (23.2)	126 (50.4)	15 (6.0)	28 (11.2)	23 (9.2)	3.67	1.21
12 Every student needs to learn about gender issues	59 (23.6)	122 (48.8)	35 (14.0)	19 (7.6)	15 (6.0)	3.76	1.08
13 Awareness about the gender-stereotyped issues should be incorporated into all school subjects	66 (26.6)	108 (43.2)	15 (6.0)	48 (19.2)	13 (5.2)	3.66	1.21
14 Schools and government are not doing enough at the moment to create awareness about gender issues in Nigeria	35 (14.0)	108 (43.2)	20 (8.0)	55 (22.0)	32 (12.8)	3.24	1.29
15 Awareness about the gender-stereotyped issues should be incorporated into all school subjects	45 (18.0)	100 (40.0)	33 (13.2)	51 (20.4)	21 (8.4)	3.38	1.23
16 Schools and government are not doing enough at the moment to create awareness about gender issues in Nigeria	31 (12.4)	121 (48.4)	23 (9.2)	52 (20.8)	23 (9.2)	3.34	1.20
17 Teacher education programme should foster awareness of gender -stereotyped issues	35 (14.0)	126 (50.4)	12 (4.8)	45 (18.0)	32 (12.8)	3.35	1.28
18 Teacher education programme should prepare students to deal with gender-stereotyped and bias in classroom and school	54 (21.6)	106 (42.4)	26 (10.4)	39 (15.6)	25 (10.0)	3.50	1.27
19 Teacher education programme should promote gender sensitive behavior	32 (12.8)	135 (54.0)	14 (5.6)	49 (19.6)	20 (8.0)	3.44	1.17
Overall	936 (19.7)	2118 (44.6)	378 (8.0)	814 (17.1)	504 (10.6)	65.86	13.86

T-test and One-way analysis of variance (ANOVA) was conducted to determine significant differences in teachers' background variables and their awareness of gender-stereotyped belief and perception gender-stereotyped. The summary of results is presented (Table 3 and 4).

Table 3: T-test of significant differences in some independent variables and Beliefs and Perception of gender-stereotyped

		N	Mean	S D	t	sig
<i>School Type</i>						
Beliefs	Single school	29	32.14	7.69	.482	.630
	Mixed school	221	31.45	7.19		
Perception	Single school	29	53.97	13.27	-5.015	.000*
	Mixed school	229	67.07	13.22		
<i>School Ownership</i>						
Beliefs	Public	157	32.10	6.93	1.617	.107
	Private	93	30.57	7.66		
Perception	Public	157	68.99	10.19	5.392	.000*
	Private	93	59.68	17.01		
<i>Sex</i>						
Beliefs	Male	121	33.66	7.38	4.703	.000*
	Female	129	29.53	6.51		
Perception	Male	121	65.55	14.16	.016	.988
	Female	129	65.53	13.63		
<i>School Location</i>						
Beliefs	Rural	42	28.29	5.50	-3.245	.001*
	Urban	208	32.18	7.38		
Perception	Rural	42	58.74	14.97	-3.572	.000*
	Urban	208	66.93	13.24		
<i>Class taught</i>						
Beliefs	SSS	167	31.20	7.15	-1.008	.315
	JSS	83	32.18	7.41		
Perception	SSS	167	67.58	11.77	3.400	.001*
	JSS	83	61.33	16.70		
<i>Religion</i>						
Beliefs	Christian	181	31.34	7.05	-.675	.500
	Islam	69	32.03	7.73		
Perception	Christian	179	65.11	13.41	-.784	.434
	Islam	69	66.65	15.01		
<i>Marital status</i>						
Beliefs	Single	117	31.61	6.85	.161	.872
	Married	133	31.46	7.58		
Perception	Single	117	60.29	14.90	-5.921	.000*
	Married	133	70.08	11.09		

*Significance level 0.05; **Senior Secondary School (SSS); Junior Secondary School (JSS)

Table 4 indicates that significant difference existed in teachers' gender-stereotyped perception based on school type, school ownership, sex of teachers, school location, class taught and teachers' marital status. On their awareness significant difference was only observed in teachers' sex and school location. This suggests that teachers from rural school are less aware of gender-stereotype belief and practices in the schools. A one-way ANOVA conducted, revealed age to be significantly different to awareness of gender-stereotyped belief ($F [4,249] = 7.435, p < .000$). However, the analysis showed no significant differences with regard to age and awareness, and Teaching experience, subject specialization and education qualification and awareness and attitudes/practices of gender-stereotyped (Table 4).

Table 4: Analysis Of Variance In Some Independent Variables And Beliefs And Perception Of Gender-Stereotyped

		Sum of Squares	df	Mean Square	F	Sig
Age						
Beliefs	Between Groups	1410.545	4	352.636	7.435	.000*
	Within Groups	11619.759	245	47.428		
	Total	13030.304	249			
Perception	Between Groups	306.033	4	76.508	.394	.813
	Within Groups	47133.564	243	193.965		
	Total	47439.597	247			
Year of Teaching						
Beliefs	Between Groups	248.547	3	82.849	1.595	.191
	Within Groups	12781.757	246	51.958		
	Total	13030.304	249			
Perception	Between Groups	1957.877	3	652.626	3.501	.016
	Within Groups	45481.720	244	186.400		
	Total	47439.597	247			
Subject Specialisation						
Beliefs	Between Groups	240.999	2	120.500	2.327	.100
	Within Groups	12789.305	247	51.779		
	Total	13030.304	249			
Perception	Between Groups	371.822	2	185.911	.968	.381
	Within Groups	47067.774	245	192.113		
	Total	47439.597	247			
Educational Qualification						
Beliefs	Between Groups	189.511	5	37.902	.720	.609
	Within Groups	12840.793	244	52.626		
	Total	13030.304	249			
Perception	Between Groups	1826.726	5	365.345	1.938	.089
	Within Groups	45612.871	242	188.483		
	Total	47439.597	247			

When asked if they think teachers can through their classroom practices/interaction assist in reducing societal gender-stereotypes. Almost half that is (49%) answered in the affirmative, 27% responded in the negative, while 24% say they don't know. The content analysis from the open-ended question in the survey questionnaire, which request respondents' to suggest ways or practices that teachers could implement so that gender-stereotypes can be reduced in classroom, school and society. The respondents' suggestions are summed up thus:

1. Classroom

Teachers should always use language that is gender neutral
 Boys and girls should sit together in a mixed school
 Equal opportunity should be given to both boys and girls in classroom activities
 Instructional materials that are not gender neutral should be avoided in the teaching-learning interaction
 Teachers should stimulate healthy competition among the sexes

2. School

Awareness campaign should be promoted through organise seminar, workshop about gender stereotypes for both teachers ad students
 Gender sensitive behaviour should be promoted among students and teachers
 Applauding both gender activities
 Give equal academic and extra curricular opportunities to both sexes
 Superiority and inferiority should be discouraged
 Involving both sexes in decision-making

3. Society

Government should formulate policy that will address these issues
 Advocating gender equality
 Gender issues should be incorporated into school subjects
 Non-participation in and discouragement of violence against women and girls in the society
 Cultural practices that promote gender-stereotype and discrimination should be discouraged

VII. DISCUSSION AND CONCLUSION

The study found that educational system not only reinforces traditional gender roles but also of stereotyped attitudes toward gender stereotypes. Majority of the teachers held gender-stereotypes and are guilty of gender-stereotypes practices in schools. Teachers are unaware and deny that they hold or perpetuate biased perceptions of males and females. Results show a significant difference between the gender stereotype belief, attitudes and practices of males and females teachers. Other variables were found to show significant difference school location, school type, educational qualification, class taught and marital status. These results found enormous support with previous studies. For instance, Hallam & Ireson, (2003) found that teachers' beliefs about ability grouping are influenced by the type of grouping adopted in the school where they work, the subject they teach, their experience and qualification. These findings coincide with a study conducted by Alsharie (1998) where the variables age and marital status were not significantly related to pre-service teachers' attitudes toward gender roles. The finding related to the variable age was found to contradict previous research, (Alsalehi, 1998; Wooldridge & Richman, 1985) where age was found to be important in accounting for the variation in individuals' views about gender-roles. Another important conclusion drawn from the study is that there was a significant difference between teachers' awareness of beliefs and perception of gender stereotyped and teachers' background characteristics. This finding is similar to the findings of some studies conducted by (Tatar & Emmanuel, 2001; Sahin et al., 2002; and Tantekin, 2002) which suggested that there is difference between teachers' background characteristics and teachers' awareness of beliefs, and practices in the classroom. The findings from this study has great implications for classroom practice and school administration of the need for a heightened awareness of gender issues in terms of professional development, gender-balanced curriculum, instruction and assessment and school culture. Therefore it is recommended that our teachers must learn to recognize and eliminate gender bias in their student-teachers interactions both within and outside the classroom. Seminars and workshops should be organised for in-service teachers, administrators and parents to sensitise and conscientise them to gender issues problems and their consequences on the students. When stakeholders are made aware of their gender-biased behaviors/practices and provided with strategies to combat bias are better able to promote gender equity in their classrooms and society. Teacher should avoid language that limits one gender or another from participating in classroom interaction. They should learn to be selective in their language. The use gender-neutral labels such as chairperson and headteachers should be encouraged in social engagements. There is need to change the socialization process of gender within our schools which assures that girls are made aware that they are unequal to boys. Those activities such as making boy the class captain and girl

assistant should be revised. Beyond changing behaviors, teachers need to be able to select gender-neutral educational materials and texts for use in their teaching as a step to combat this bias. Existing textbooks should be revised to take cognisance of the gender issues. Gender neutral or fair curriculum and learning materials has to be developed. For teachers to be effective change-agent and role models of reducing gender stereotyped and related issues in-service and refresher courses should be frequently organised be sensitised them on the gender issues in the curriculum. In addition, Federal and States Ministries of Education need to develop textbooks and materials, establish mechanisms to monitor and evaluate education policy implementation from a gender equality perspective.

Teacher education curricula for both pre-service and in-service must be permeated with opportunities to acquire gender sensitivity knowledge, skills and develop attitudes in classroom layout, use of resources, responsibilities for activities, discipline, classroom language and teacher-students interaction.

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Effectiveness of Information Sources on Improved Farm Practices among Cowpea Farmers in Oyo State

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Abstract-Cowpea is a legume that is extensively grown throughout the sub-Saharan Africa .It is one of the cheapest sources of plant protein to a majority of the people in Nigeria. The essence of this study is to examine the effectiveness of information sources on improved farm practices among cowpea farmers in the study area. Multistage sampling technique was employed to select respondents for the study. In all, one hundred and twenty respondents were sampled. A structured interview schedule was used to collect information on variables such as socio-economic characteristics, effectiveness of information sources on Agricultural production and problems militating against cowpea production. The data collected were analyzed using descriptive analysis such as frequency distribution and percentage, while Pearson Product Moment Correlation was used as the statistical tool. The result revealed that most of the respondents are in their active age, married with household size of 6 – 10 members. Information from friends and mass media such as radio and television were ranked to be the most effective sources, and inadequate income was ranked first among the problems militating against cowpea production. The result of Pearson product moment correlation shows that a significant relationship was found between the socio-economic characteristics of the respondent Age (0.33), House hold size (0.22),years of experience (0.08) and effectiveness of information sources. It is therefore recommended that subsidy should be provided on inputs so as to enhance production and increase farmers' income.

Keywords- Information Source, Effectiveness, Cowpea, Farm practice, Agricultural information.

I. INTRODUCTION

Agriculture is a major sector of Nigeria's economy as it provides food and processed products for the populace as well as the provision of raw materials for Agro-allied industries (Odebode ,2007).One of the ways of achieving the role of the agricultural sector in Nigeria's economy is through effectiveness of information sources on improved farm practices. Based on this understanding, the Federal Government has designed structures to implement several programs geared towards efficient and effective information dissemination with a view to improving agricultural production and rural development in the country. Agricultural information can be viewed as a process of communicating ideas skills and technology from extension to farmers. The importance of such information as an ingredient for advancement of agriculture cannot be over emphasized as its

inadequacy could be dangerous and turn to become a major constraint to agricultural development. (Adeola,2008).The high output of agricultural research has led to a large pool of new agricultural technologies, which are yet to be disseminated to farmers. As it is supported by Abbas et al 2003, that most of the farmers are not fully aware of the recommended agricultural practices resulting in low yield per acre. In order to accelerate the pace of effectiveness of the research findings to farmers, a variety of communication channels have been adopted with the assumption that both the approaches and technical information packages are suitable to the farmers. This can be minimized only if recommended technology is effectively transferred from researchers to farmers who are the ultimate users of innovation. For communication of new ideas and skills to the farmers, interpersonal relationship, relatives, experienced farmers, Agricultural extension staff, printed material and dealers of agricultural inputs play a crucial role in establishing foundation store of the knowledge base for the farmers in shape of technological package, as Knowledge acquisition occurs with awareness exposure and at least a rudimentary understanding of how an innovation functions (Rogers, 1986). However, it is not definitely known which of the sources are more effective in transmission of information to the farmers. It is important to know the extent of effectiveness on awareness and adoption of recommended technology by the farmers, as Khan (2002) revealed that Nigeria's agricultural production is much lower than many other countries of the world, and that there is a big gap between actual yield and attainable potential yield of crops. Research has shown that farmers' information exposure is most likely to be an important factor influencing their adoption behavior as greater exposure is likely to enhance awareness about the latest recommendations and to lead farmers putting these recommendations into practice in a precise manner (Muhammad & Garforth, 1995). Cowpea is a legume that is extensively grown throughout the sub-saharan Africa. It is a subsistence crop often intercropped with sorghum maize and millet. It is cultivated for its leaves, green pods, grains, Stover and mature pods. The young leaves and immature pods are used as vegetables while snacks and main dishes are prepared from the grain, as it is one of the cheapest sources of plant protein to a majority of people in Nigeria. As a result of the roles played by cowpea in the diet of Nigerians, it becomes imperative that information sources must be effective for any appreciable increase in cowpea production to take place. This study therefore examined the

effectiveness of selected sources of information in creating awareness among farmers about recommended technology for cowpea production. To achieve the objectives, the study provides answers to the following research questions. what are the socio-economic characteristic of the farmers involved in cowpea production? what is the level of awareness of the practices introduced to the farmers? what are the information sources available to farmers? what are the problems militating against cowpea production? The general objective of the study is to examine the effectiveness of information sources on improved farm practices among the cowpea farmers in Surulere Local Government Area of Oyo-State.

1) Specific Objectives

The specific objectives of the study are to:

- identify the socio-economic characteristic of cowpea farmers
- determine the level of awareness of the practices introduced to the farmers
- investigate the information sources available to the cowpea farmers.
- identify the problems militating against cowpea production.

2) Hypothesis of the Study

This hypothesis was tested in a null form to realize the objectives of the study.

H01: There is no significant relationship between the socio-economic characteristics of the respondents and effectiveness of information sources.

3) Methodology

The study was carried out in Surulere Local Government Area of Oyo-State. The population for the study comprised of sampled male and female cowpea farmers in the area. One of the major occupation of people in the study area is cowpea farming.

4) Sampling Procedure and Sample Size

The local government is an agricultural extension block of Oyo State Agricultural Development Programme (OYSADEP). The block is made up of eight cells from which the sample for this study was drawn. A multistage sampling technique was used in selecting the respondents for the study. Three cells were purposely selected due to high concentration of cowpea farmers in the areas, after which Four villages were randomly selected from each of the three cells making a total of 12 villages. Thereafter, 10 farmers were randomly selected from each village based on

the registered list of farmers obtained from the OYSADEP to arrive at a total number of 120 farmers.

5) Measurement of Variable

The independent variable of the study is the socio-economic characteristics such as Age, marital status, Educational level, Household size and years of experience. while the dependent variable is the effectiveness of information sources on improved farm practices which was measured on a 3 point scale-very effective, effective and not effective.

6) Data Analysis

Descriptive statistics used include frequencies count, percentages and mean, while Pearson Product Moment Correlation was used to determine the relationship between socio-economic characteristics of the respondents, level of awareness and effectiveness of the information sources.

II. RESULTS AND DISCUSSION

1. Socio-Economic Characteristic Of The Respondents

Table 1 shows that most of the farmers (69.3 per cent) were in the youthful age bracket of 30-49 years. Average age for the respondents was 45.2 years. The result of the findings also shows that 81.7 per cent of the respondents are male while the remaining 18.3 per cent are female. This implies that most farmers that are into cowpea production are male. Furthermore, Table 1 shows that most of the respondents (88.3 per cent) are married while others are single. Majority (72.5 per cent) of the cowpea farmers received some level of formal education while the remaining 27.5 per cent had no formal education. This implies that the literacy level in this study area is relatively high. This might help the farmers in faster adoption of improved cowpea practices and also aid extension work. On the issue of household size, Majority (64.2 per cent) of the respondents claimed to have 6- 10 household members. 26.2 per cent claimed 10- 15 members, while few of the respondents (0.8 per cent) claimed more than 15 members. The average household size of the respondent was 9. Finally table 1 revealed that 24.2 per cent of the respondents finance their farming activities from personal savings. 66.7 per cent obtained cooperative loans, while the remaining 9.2 per cent obtained bank loans.

Table 1: Distribution Of Respondents By Socio-Economic Characteristics N = 120

Age group (years)	Frequency	Percentage
< 30	3	2.4
30-39	32	26.7
40-49	51	42.6
50-59	23	19.2
> 60	11	9.3
Sex		
Male	98	81.7
Female	22	18.3
Marital status		
Single	3	2.5
Separated	1	8
Divorced	2	1.7
Widowed	8	6.7
Married	106	88.3
Educational level		
Non-formal education	33	27.5
Primary completed	48	22.5
Primary uncompleted	4	3.3
Secondary completed	27	40.0
Secondary uncompleted	5	42
Tertiary institution	2	2.5
Household size		
1-5	10	8.3
6-10	77	64.2

10-15	32	26.2
Above 15	1	0.8
Source of finance		
Personal Savings	29	24.2
Cooperative Loans	80	66.7
Bank Loans	11	9.2
Years of experience		
<5	15	12.5
5-10	20	16.7
>10	85	70.8

Table 2: Distribution Of Respondents By Awareness Of Cowpea Practices

Cowpea practices	Frequency	Percentage
Improved Varieties	80	66.6
Fertilizer Application	40	33.3
Agrochemicals	45	37.5
Processing	60	50
Land preparation	85	70.8

The result of the data on table 2 shows the distribution of respondents by cowpea production practices introduced to the farmers. 66.6 per cent of the respondents are aware of improved varieties on cowpea production. 33.3 per cent are aware of fertilizer application while 37.5 are aware of agro chemicals on cowpea production. Also 50 per cent and 70.8 per cent are aware of processing and land preparation respectively. Here it is necessary for extension workers to improve the level of awareness of practices. This is based on the fact that when there is an increase in the awareness of these practices, there will be the need for more information

regarding these practices by the farmers, which might further increase the adoption rate of the practices.

2. Effectiveness Of Information Sources On Cowpea Production

Table 3 shows the analysis of the effectiveness of information sources on cowpea production using a 3 point likert scale. It is revealed that the most effective interpersonal source of information on cowpea production available to farmers are friends who are non- professionals in information dissemination. The danger in such situation is

the likelihood of mispresentation of message. The village extension worker who is professionally trained for information dissemination to farmers is not a major source of information. But for a successful and sustainable adoption of technologies, the farmers need to be adequately trained by the village extension worker on regular and continuous basis. This is necessary to save farmers from being misguided, as Oladosu (2004) pointed out that adoption and utilization of appropriate technology is largely dependent on the effectiveness and relevance of information dissemination and the ability of agents to persuade the farmers. It can be inferred from table 3 also that farmers rely more on radio and television as a means of getting information through the mass media as was reported by

most of the respondents, which implies that most of the respondents listened to radio and television programme me, indicating that agricultural programmes on radio and television have impact on farm families. Among group contact methods, farm centers were the major sources of information for cowpea production technologies. This points to the fact that farm centers could in addition to other sources be an important way of disseminating information among farmers. A general look at the effectiveness of information sources on table 3 reveals that village extension worker ranked 11th which is the lowest among others. This might be due to the fact that friends and village heads are used as contact farmers, which makes extension agent come into contact with only few farmers

Table 3: Distribution Of The Respondent Based On Effectiveness Of Information Sources On Cowpea Production

Source	Very Effectives	Effective	Not Effective	Mean Score	Ranking
Interpersonal					
Friend	120 (100.0)	-	-	2.00	1
Village head	114 (45.0)	4 (3.3)	2 (1.7)	1.93	2
Extension agent	1 (0.8)	9 (7.5)	110 (91.7)	0.09	11
Mass media					
Radio & Tele	56 (46.7)	61(50.8)	3 (2.5)	1.44	3
Posters	19 (15.8)	100(88.3)	1 (.8)	1.15	4
Newspaper	6 (5.0)	112(93.31	2 (1.7)	1.03	6
Extens.bulleting	4 (3.3)	12(93.3	4 (3.3)	1.00	8
Group contact					
Farm centers	20(16.7)	93(77.5)	7(5.8)	1.11	5
Demons.plot	13 (10.8)	95(79.2)	12 (100)	1.01	7
Exptal.station	13(10.8)	69(57.5)	38 (31.7)	0.79	10
Research inst.	44 (11.7)	88(73.3)	18 (15.0)	0.96	9

Source: Field survey 2009.

3. Problem Militating Against Cowpea Farmers

Table 4 shows that low level of income is the most serious problem encountered by cowpea farmers in the study area which was ranked first with a mean score of (1.89), followed by inadequate transport facility (1.86), high cost of input (1.05), harvesting problem (1.44), pest and diseases (1.37), unfavorable weather condition (0.98), inadequate

storage facilities (0.82) and lack of awareness (0.19) respectively. This implies that low level of income and inadequate transportation facility are the most serious problems encountered by cowpea producers in the study area

Table 4: Distribution Of The Respondents Based On Problem Militating Against Cowpea Farmers.

	Serious problem	Mild problem	Not problem	Score	Ranking
Low level of income	109 (90.5)	9 (7.5)	2 (1.7)	1.89	1
Pest and diseases	48 (40.0)	68 (56.7)	4 (3.3)	1.37	5
Harvesting problem	78 (65.0)	17 (14.2)	25 (20.8)	1.44	4
High cost of inputs	6 (5.0)	114 (95.0)	-	1.05	3
Inadequate storage facilities					
Lack of awareness	19 (15.8)	60 (50.0)	41 (34.2)	0.82	7
Unfavorable weather condition	7 (5.8)	9 (7.5)	14 (86.7)	0.19	8
Inadequate Transport facility					
	13 (10.8)	92 (76.7)	15 (12.5)	0.98	6
	110 (91.7)	8 (6.7)	2 (1.7)	1.86	2

Source: Field survey, 2009

4. Test Of Hypothesis

H01: There is no significant relationship between the socio-economic characteristics of the respondents and effectiveness of information sources. Based on the relationships between the socio economic characteristics of the respondents and the effectiveness of information sources in the study area, data on table 5 shows a positive and significant relationship between effectiveness of information sources and Age ($r = 0.334^{**}$), Household size ($r = 0.219^*$) and years of experience (0.083*). This is an indication that age, household size and years of farming experience plays significant roles in determining the information sources that are effective to farmers on cowpea production.

Table 5: Relationship Between Socio-Economic Characteristics And Effectiveness Of Information Source:

Characteristic	Pearson correlation	Significant level	N
Age	0.334**	0.00	120
Sex	- 0.132	1.151	120
Educational level	- 0.080	0.386	120
Years of experience	0.083*	0.370	120
Household size	0.019*	0.016	120

Source field survey, 2009.

III. CONCLUSION

The study has identified the most effective sources for disseminating production practices on cowpea, as well as identified the major problems faced by cowpea farmers in the study area. Based on these, efforts should be directed towards improving the level of awareness of these practices by organizing training workshop for farmers by extension agencies. Also subsidy should be provided on inputs by government and private agencies so as to enhance production and increase farmers' income.

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Social Values and Public Health: An Interpretive Development Perspective in Nigeria

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Abstract -The paper examines the ongoing public health reform measures, which more or less, encompass the Obasanjo, Yar'Adua and Jonathan's political dispensations (1999-2010) and highlight the collective abdication of social values by Nigerians as a major reason why policy reforms in public health have not succeeded. The neglect of social values and the adversities stemming therefrom are pervasive and apparent across many sectors and social institutions in Nigeria. For example, the spate of divorce in Nigeria is a sign of the travail of the family in contemporary Nigeria. Spiralling unemployment is a symptom of a major crack in the capacity of the economy to employ prospective job seekers. The rise in malaria infection, tuberculosis and HIV/AIDS is a clear statement, if one was needed, on the shortcoming of Nigeria's public health delivery system. A system that has failed to recognize the inherent potential of the teeming population and has also failed to conscientise the citizenry on standard precautionary measures against communicable and non-communicable diseases, is one that requires critical policy intervention. The paper defines social values and conceptualises public health in the context of Nigeria. The role of international organisations such as the World Health Organisation and other related Non-Governmental Organisations are examined. The paper argues for a shift from wholesale dependency on the health delivery paradigm of the West to a re-invigoration of the endogenous institutional capacity of Nigeria to deliver dividends in collective health needs and health infrastructures. The paper advocates for a holistic and all embracing reform measures that will optimize the health needs of the citizenry.

Keywords: Development, health, social values, paradigm, unemployment, reforms

I. INTRODUCTION

The G8 roundtable on the momentous issues of the world has come and gone but the aftermath of the discussions continue to point the way forward for many African countries especially in the area of purposeful education, health care delivery, sustainable development, etc. Several pejorative terms have been used to describe African countries of late. Specifically, Nigeria has been variously described as a failed state, a stagnated and a profoundly corrupt state, etc. While this paper does not intend to contest these labels, we make bold to state that there is a yawning gap in development infrastructures between Nigeria and the countries that constitute the G8 (individually and collectively). Nigeria has consistently regressed in several indicators of development. Trunk and feeder roads across the country which are supposed to facilitate the process of development have largely remained in a state of disrepair and have become a hindrance to development proper. Energy supply has not fared better, even though Nigeria has a capacity to generate 3500 megawatts of electricity, the

country has never come close to that capacity mark because of a combination of incompetence, corruption and wanton vandalisation of electric wires, transformers, etc. by marauding youths who advertently unleash vengeance on a system that has woefully failed to cater to their employment needs. When Generals Buhari/Idiagbon hatched their coup d'tat at the tail end of 1983 they gave the reason of the collapsed health care delivery system, especially the public hospitals which had become consulting clinics. Today, the situation has become worse and worrisome. The health care delivery system has virtually given way. No qualified doctors, no genuine drugs and there is a virtual lack of access to health facilities by a vast majority of Nigerians. As the economy has become comatose, and several manufacturing factories have folded up or become converted to places of Christian worship, many persons have been retrenched thus swelling up the already bloated labour market with ample ramifications for grave social problems, especially criminal tendencies. As most of Africa continues to experience economic downturn, Africa South of the Sahara continues to be quite vulnerable to the HIV/AIDS pandemic. The United Nations in its 2006 Report has highlighted the HIV/AIDS scourge in countries like Uganda, Kenya especially around the Port of Mombasa and some flash spots in some Southern cities in Nigeria. Nigeria has embraced a concept of development that is rather ambivalent. The pursuit of personal benefit by elected representative and government functionaries have tended to supplant concern for the common good thus unwittingly promoting a trenchant tradition of corruption, which is arguably the bane of economic growth and development in Nigeria. It is quite true that Nigeria is a signatory to several United Nations conventions Bilateral and multilateral trade agreements have been signed. Nigeria is a core member of NEPAD (New Economic Partnership for Africa Development) Nigeria has openly embraced globalisation which, according to Jike and Esiri (2005:128) is associated rightly or wrongly with current challenges facing a supposedly modern world without national boundaries. Obada (2001) defined globalisation as the growing interdependence of the world's people. Globalisation is about interconnectedness in economic transactions among the world's governments and peoples and the multiplicity of processes, which enables this objective(s) to be achieved (Rodrick, 1998, 2000; O'Rouke, 2002a) However, we make bold to state in this paper that the truncation of Nigeria's economic objectives through successive inimical government policies such as colonialism, neo-colonialism, distorted forms of democracy pervasive corruption, etc have disoriented our values in a way that will not support a productive public health delivery

system We shall now examine the nexus between social values and public health in Nigeria.

II. SOCIAL VALUES AND PUBLIC HEALTH

Values are a core component of the culture of a people, while culture is defined by Chinoy (1967:26) as an appropriate or required mode of thinking, acting, and feeling. Culture in sociological inquiry may also refer to things like painting, music, sculpture, philosophy, etc. (Yakubu, 2002) Neubeck and Glasberg (1996:110) have indicated that values are assumptions and judgments made about the goals or states of existence that are deemed important, desirable, and worth striving (or dying) for. According to Neubeck and Glasberg (1996:110), Values shape the normative system by defining the criteria for judging which behaviours will and will not be tolerated. However, values do not necessarily determine behaviour. Values are beliefs, attitudes, feelings, habits, conventions, preferences, prejudices, even idiosyncrasies - whatever any individual, group or ... happens to value or esteem at anytime, for any reason (Awake, April 2007). Therefore, social values are embedded in culture, which is simply the total way of life of a people, their prejudices and set standards. As Tillman (2000: 2) aptly noted, in his introductory notes. People around the world are increasingly affected by violence, group social problems and a lack of respect for each other and the world around them. Parents and educators in many countries are asking for help to turn around this alarming trend. He concludes that "part of the solution is an emphasis on teaching values. In the contemporary era, we live in a closely-knit and largely interdependent world, aptly described as a global village. No nation, no matter how naturally endowed or prosperous can afford to be isolated from other nations. Nations derive strength and political leverage from synergy with others within the comity of nations. In peacekeeping missions, international trade or other forms of partnerships, nations are vigorously aligning with each other either in regional conglomerations or multilateral unions to optimise their internal capacities to prosecute national development objectives. Even in the sphere of health care delivery, the world is unavoidably interdependent. As Aghahowa (2000:26) highlighted: All nations are interdependent in terms of politics and strategy. No nation, no matter how small, can in isolation realise its fate. No nation, no matter how large, can compel all others to do its bidding, nor convert them quickly to its own beliefs. No people and no country in the world could have reached its present level of technology, prosperity and health nor could it maintain its present rate of progress without the decisive aid of foreign contribution ... No country can keep its own people alive without the help of foreigners. The dismantling of national boundaries and the unfettered access to international transactions in goods and services as a result of globalisation has taken root across the world. Most of these transactions are in goods and services but an important component of the process of globalisation is both socio-cultural and political. A global village allows a preview of a new film in Hollywood to be watched simultaneously in California,

USA, London, England and Lagos, Nigeria. Though globalisation may have several advantages in terms of Direct Foreign Investment, privatisation facilitated by foreign capital and expertise. However, we must also highlight the several latent consequences of globalisation which may include international criminality, like, internet scams, fraudulent money transfers, vicarious learning of deviant dispositions watched on foreign films, etc. Thus globalisation presents both risks and opportunities. One may argue and we actually do in this paper, that rapid international interaction that is a distinct feature of globalisation has accelerated the spread of communicable diseases such as tuberculosis, HIV/AIDS, SARS, BIRD FLU, etc. Needless to add that Western consumption habits, depicted by global advertising in smoking and consumption of junk food have gained ground in Nigeria. In the oil and gas sector, the operational activities of multinational oil companies especially in relation to gas flaring and oil spillages have impacted negatively on the public health circumstances of host communities. Otherwise alien infirmities like, bronchitis, skin/lung cancer and other carcinogenic diseases have begun to creep into the local population. There are also views which hold that globalisation has midwifed the spread (by modern travel) of disease such as SARS, HIV/AIDS and related diseases across national boundaries.

III. INTERNATIONAL RESPONSE TO AFRICA'S ECONOMIC PREDICAMENT

The international community have often come out with propositions to revamp the economic infrastructures and sustain ability of Africa. The series of Lome conventions, the ECA/UN initiatives on Africa's self-reliance, American trade concessions to African countries through the instrumentality of AGOA, NEPAD and several multilateral development initiatives that are premised on G8 forum of developed countries, ritually come out with finely written communiqué on how to realise the economic potential of Africa. However, much of these initiatives are burdened with self-interest, which altogether negate the development objectives of African countries. For example, globalisation as a conceptual vehicle for Africa's development is fraught with problems. Opening up the economy for an influx of manufactures from abroad will certainly weaken indigenous capacity to produce goods and provide services. This, in turn will weaken the ability of local entrepreneurs to compete globally. Much of these symptoms are already evident. Manufacturing companies are already folding up in major cities in Nigeria in response to the grave challenges of globalisation. Locally made products cannot compete with the cheap ones imported from China and the Asian Tigers. The influx of foreign capital has also facilitated mergers and acquisitions in a nation-wide privatisation exercise that has become a national controversy. It is perhaps, pertinent to mention development aids, grants and other forms of assistance from multilateral organisations to Nigeria. Needless to say that these Grants/Aids come with a burden of conditionalities that are mostly beneficial to donor countries. For example of what use it is if the United

Kingdom gave a grant of £20 million (twenty million pounds) to the Federal Government of Nigeria to build a forensic laboratory and actually import all the materials and personnel for the construction of the Forensic Laboratory from the United Kingdom. In this specific case, the Forensic Laboratory will merely provide jobs for British nationals rather than Nigerian citizens. Thus, most foreign Grants/Aids hardly add local - value to our socio-economic space. Grants/Aids are therefore a projection of the national interest of donor countries. This has become even more pronounced in public health intervention schemes. For example, the malaria net scheme, the tuberculosis and lately the HIV/AIDS are tied up with conditionalities that make African countries to remain in a position of perpetual subservience and servitude. One way of tackling this shortcoming, and one that is projected by this paper, is to be introspective, to draw from our value systems to reassert our pride and dignity as a first step of re-addressing contemporary challenges. For a long time, African value systems have been denigrated. The onset of colonialism was a frontal attack on African indigenous ways of doing things. African names were initially ridiculed and replaced by foreign ones. African forms of marriage and, rites of passage were labelled as primitive. African health delivery practices were condemned. African local gin OGOGORO was banned, declared illicit and those associated with its production were pervasively haunted and clammed into jail. Religious practices and herbal concoctions that had no tinge of animism or primitivism were altogether derogated and swept under the carpet. Even the communitarian ethos that was the major plank of communal life was replaced by stark competitiveness and unwholesome individualism that were the hallmark of capitalism at the dawn of colonialism. Thus, African values have consistently declined because there has been a steady ideological attack on these values from colonialism to the contemporary era of globalisation. Globalisation for example, continues to assault our collective cultural sensibilities. Young people continue to abandon African traditions and adorn cultural traits and raiment of alien cultures. Females continue to wear trousers as their male counterparts. Criminality as in Hollywood movies is beginning to gain ground in the Niger Delta of Nigeria.

Table 1: Health and Poverty Dimensions in Nigeria in 1995, 1999 and 2001.

Health	1995	1999	2001
Access to essential drugs (% of total population)		10	
Access to physicians (per 100,000 people)		<30	
Nigerians living with HIV/AIDS (millions)		>5	
Prevalence of HIV, female (millions)			5.8
Incidence of tuberculosis (per 100,000 people)			305
Under 5 mortality rate (per 1000)	187		183

1000)			
Infant mortality rate (per 1000 live births)	112		110
Immunisation, measles (% of children under 12 months)	44		40
Immunization, full (% of total children)		17	
Maternal mortality (modeled estimates, per 100,000 live births)	1100	704	

Source: World Bank

Baseline date upon which reform projections are based

Table 1 shows a graphic detail of the appalling state of public health delivery system in Nigeria. The table unwittingly highlights the pervasiveness of poverty and how this has undermined the level of access that the citizens have to health facilities and personnel. In 1999, for example, only 10% of an estimated total population of about 125 million people had access to essential drugs. There are no figures for 2001 but one can only surmise that the number of those who had access to drugs may have thinned, less than those who had access the previous year. The number of Nigerians who had access to physicians per 100,000 people was less than 30, probably less than 30 for those who live in the deep crevices of the hinterland and the inaccessible creeks of the Niger Delta. Nigerians living with AIDS in 1999 was more than 5 million. Even though accurate figures are not available in 2001 and beyond, one can only guess that the actual number of Nigerians living with AIDS may have increased exponentially in the last couple of years. The table above portrays a picture of the dismal state of public health delivery system in contemporary Nigeria. Why one can easily point to the poor state of the economy as a potent factor that has roundly undermined the health care delivery system in Nigeria. It is perhaps, pertinent to discount the cost of the monumental failure of the past and chart a new path that is based on age-old value System.

IV. THE NEED FOR A NEW VALUE ORIENTATION

While government has chosen to refurbish teaching hospitals and install ancillary health care infrastructures as a way of improving the state of public health delivery, this paper seems to prefer a different approach, one that will resuscitate age old values of dignity, discipline, chastity and honesty in all interpersonal relationships. Such values will be revamped and sustained through a continuous process of socialisation where acceptable practices and tolerable behaviour will be emphasised and rewarded, while deplorable patterns of behaviour will be roundly sanctioned. Pristine social values and codes of behaviour lead to better health for individuals, communities and the larger polity. Some of the social values that have been abandoned such as respect for elder; and the need for chastity could reduce vulnerability to threatening diseases, such as HTV/AEDS and STD. It is generally known that those who subvert constituted authority, generally live in the shadows of civilisation, in a subculture of deviance and devious mannerisms where they embrace vices and play out evil

machinations in a continual orgy of violence, sustained by drug abuse, cultism and base gangsterism. Most times, government's intervention programmes skirts around symptoms rather than the fundamental issues, which produce those symptoms. Emile Durkheim used the term anomie to refer to a situation epitomised by the absence of values and mores. Violence can only erupt when values and mores, which together constitute the normative order, have given way. If you now address the violent situation without examining the underlying fractionalised norms you may only have advanced midway in a bid to solving the problem you have at hand. This, perhaps, depicts the scenario we have in present day Nigeria where emphasis is placed on symptoms rather than fundamental causes. Universal values teach respect and dignity for all and sundry. Learning to imbibe these values promote well being for individuals and the larger society. As Tillman (2000) succinctly noted in her treatise, *Living values: An educational programme* "each individual does care about values and has innate capacity to positively create and learn when provided with opportunities". People tend to thrive in a value-based atmosphere in a positive, safe environment of mutual respect and care, where people are regarded as capable of learning to make socially conscious choices.

The subsisting argument is that social values create the requisite framework, that provides the basis for sustainable public health delivery system. This is the thrust of this paper.

V. KEY PLAYERS IN GLOBAL HEALTH MANAGEMENT

In 1995, the United Nations during its fifth anniversary celebration instituted a project of value orientation called "sharing values for a better world". This project focused on twelve universal values. The theme adopted from a tenet in the preamble of the United Nations was, among others, to reaffirm faith in fundamental human rights, in the dignity and worth of the human person (Tillman, 2000). An acquiescent United Nations with its supranational leverage lend credence to the appropriateness of values as a driving force for sustainable health care delivery system. Other key players in global health management include, the World Bank, which has a multi-country HIV/AIDS programme (MAP), the Global Fund to fight HIV/AIDS, tuberculosis and malaria. The World Health Organisation with its 3 by 5 initiative and the President's Emergency plan for AIDS Relief (PEPFAR) of the World Health Organisation has an ambit with an overriding influence on global health, we shall examine some of its functions. The World Health Organisation was founded by member nations to promote global health. WHO is a key player in global health scene, which determinedly presses for the realisation of all social rights within the health sector. "Health for All" is not only the aim of WHO as an organisation but it is also established as the central objective of international and national health activities by nation states throughout the world. The international conference on Primary Health care in Alma-Ata in 1978 proposed and the World Health Assembly in 1979 endorsed primary Health care as a strategy to achieve the objective of Health for All by the year 2000" not by

giving the poor a minimum of health services but by providing health services for all, a much desired foundation for a comprehensive health system. The declaration of Alma-Ata endorsed, once and for all, the announcement of health as a fundamental right in the convention on economics, social and cultural rights. "The conference strongly reaffirmed that health, which is a state of complete physical, mental and social well being, and not merely the absence of disease or infirmity is a fundamental human rights and that the attainment of the highest possible level of health is a most important world-wide social goal whose realisation requires the action of the health sector. In 1980, when it became dear that the Alma-Ata concept of primary health care was idealistic and not easily realisable, the concept of selective primary health care was introduced. This was to focus on specific disease in developing countries and on the lack of immunization, which, more or less constrained the proposed goals. Those hegemonic neo-liberal concepts, which highlight targets, selective help and private provisions, instead of a comprehensive health care provisions. The colossal failures especially in the developing countries in implementing the strategy have reduced the importance of the primary health care and speeches and Health Policy agenda. In 1996, UNAIDS was established with the objective of coordinating the UN activities and to advocate a global reaction against the HIV/AIDS pandemic. Though surrounded by an avalanche of problems UNAIDS remains the leading organisation within the UN family in the fight against HIV/AIDS as far as normative and strategic aspects are concerned. The World Health Organisation and its sister NGOs have played prominent roles at the centre of global health governance in order to defend its status as the legitimate institution for global public health. It is rather obvious that most of the propositions of the World Health Organisation especially its proposition of Health for All in 2000 came to nought. Most of these propositions are out of line with the reality in Africa. The time is past when Africa is a victim of mischievous experimentation of the West which sees every outbreak of epidemic on the African continent as a potential source of willing or unwilling "guinea pigs".

VI. SUMMARY AND CONCLUSION

A clear articulation of the state of public health in contemporary Nigeria is imperative for attaining a stable society and sustainable development. Health is wealth, a healthy population is an asset in the quest for development, while a sickly population is a drain on the economy. Sorely needed development fund will be diverted to cater for the infirm and the frail in a manner that distortions will creep in to the development process. By dint of globalisation, it is generally agreed that the world has become one large global village. Therefore, communicable diseases are spreading across borders at unprecedented speed. This trend has provoked responses from key stakeholders in the health sector across the globe, including, individuals, NGOs, states and international organisations. Though stakeholders in the global health circuit have made laudable effort to improve the state of public health delivery, much has not been

achieved. One reason why much has not been achieved is over concentration on health hardwares such as equipment, facilities and related infrastructures to the neglect of social values that will bring about the desired results. It is pertinent to state that peoples' values and the orientations they bring from the wider environment are very important elements in making them adopt a new piece of technology or innovation. People will not present themselves for chemotherapy treatment, if they feel the very principles of chemotherapy are antithetical to their core values. Some religious denominations (e.g. Jehovah witnesses) actually abhor blood transfusion as a practice that is unbiblical and, thus, sinful. The Catholic Church has preached against abortion in any guise for quite a long time. Therefore, the place of values in the adoption of new medical practices and, in the continuing acceptance of existing practices is quite paramount. The World Health Organisation, UNAIDS and sundry specialist NGOs in the area of public health have not achieved much because of the apparent lacuna in unfittingly ignoring the value orientations of those expected to embrace preventative or curative medical strategies. Instead of groping in the dark for an abstract health strategy that is independent of human consciousness and value configurations, we may attain better results by focusing on "best practices" that are squarely embedded in the value nomenclature. The peoples' values ought to, and should provide the framework for primary health care delivery across the world. There is a more urgent need than before for a paradigm shift away from the failed path of the past where reliance on infrastructural refurbishment of medical facilities and adoption of UN and WHO strategies did not make any appreciable impact on the public health delivery system in Nigeria. Public health strategies are extensions of well-contrived imperialist strategies to fleece developing countries of scarce foreign exchange. That, perhaps, is the singular reason why multinational oligopolies engage themselves in the sale of mosquito nets, disinfectants, medicated toilet soap, etc. Africa remains one large sprawling market to be plundered for the benefit of the metropolitan West. Correspondingly, state policies, educational curriculum, the media, religious organisations, public institutions, etc have been carefully brainwashed and conditioned to denigrate any African input and to embrace anything European in a manner suggestive of unwholesome Eurocentrism. The point needs to be reiterated that our collective values as a people have been steadily eroded by an untiring ideological onslaught since the emergence of colonialism right through several variations of the ideological virus, up until the present era, when globalisation has begun to bamboozle Africa in an ideological sense. Part of the crisis in Africa is the result of this unceasing pummelling by the West. Must we continue to kowtow to the West? As Yakubu (2000) noted, "no nation can afford to dispense with its past, retain an uncertain and unstable present, and gain a sure future except its hope is hinged on the mythical and the miraculous". The collapse of the public health system is traceable to the failure of the economy, were poverty and widespread disenchantment

have constrained access to both drugs and health personnel by a vast proportion of the population. Any form of restructuring has to begin with the economy, to make it more endogenously - driven, introspective and self-reliant, away from dependency on foreign AID, hand outs, grants, etc. We must be honest with ourselves and begin afresh to build new economic frontiers and horizons. We must drop the bowl that has become an unsavoury symbol of alms - begging over the years. We should be allowed by the West to develop at our own pace and in our unique way, drawing essentially from the value system and the strong elements of our culture. This was also the strategy of the West, the Asian Tigers and, lately, the balkanised Russian Republic. No nation will let go of its best brains to develop another country. We must now begin to realise that our particularities are unique to us and we cannot develop by adopting the ideological principles of other countries. Finally, it is pertinent to reiterate that the most desirable strategy for public health care in Nigeria is one that is predicated on the value configuration of the people. Value orientations, which stem from indigenous traditions push individuals towards conformity with the normalised standard. Indigenous peoples are generally encouraged during socialisation to lead decent and healthy lifestyles. Emphasis in this formative stage of life is on prevention not cure. Children are put through a long check-list of don'ts (non-acceptable behaviour which they should not exhibit). Thus, Nigerian indigenous value configuration encourages preventive measures instead of curative measures that are globally promoted. There are a lot of problems with curative strategies. For example, when the use of condoms among youths is promoted as a means of stemming the spread of HIV/AIDS and STD infections, we ironically endorse premarital sex and extramarital sexual activities. More so, by attempting to discourage the misapplication of dangerous drugs and other psychotropic substances among youths, we focus constantly on abuse and, by so doing, inadvertently imply that drug use is alright so long as there is no abuse. Perhaps, it is important to state that we are not advocating for a relapse to traditional African practices. We are not also stating that in all cases, African value orientations are unassailable. We are very much aware of the primitive practice of killing twins in Cross River belt before the coming of Mary Slessor, we are also conversant with the widespread practice of female genital mutilation (FGM) in many parts of Nigeria until quite recently when superior medical knowledge conclusively established the gross disadvantages in Female Genital Mutilation and the indigenous peoples have begun earnestly to re-order their values and discourage the practice. However, we must continue to align our public health strategies to core values within the society. These values will shape attitude and behaviour, which will represent benchmark model for redirecting and re-orienting young people towards a desirable future where the laudable "health for All" goal will be accomplished. There is an urgent need for the government to enunciate policies that would emphasise value orientation and re-orientation. This is not a novel call because in the

past, specifically during the administration of former President Shehu Shagari in Nigeria's second Republic, an ethical re-orientation programme was put in place but it was not sustained because of the military coup de'tat that sacked the regime quite early in its tenure in December 1983. The Idiagbon/Buhari military regime also started a War Against Indiscipline (WAI), value re-orientation programme, but it also was not sustained because of the vicissitudes of political governance in Nigeria. It is important that the value re-orientation programme proposed in this study should be infused in the gamut of the school curriculum beginning from the Nursery. Primary through the secondary level to tertiary institutions in Nigeria. There should be a standard module of value re-orientation for the family as an institution, taking cognisance of subtle variations as you move from one ethnic enclave to the next. Community church, mosque and civil society elders should be active member of these values - re-orientation programmes in order to have the desired outcome. When these recommendations are put in place, we shall be able to reduce what the Federal Government Needs Document (2004) calls 'the disease burden' attributable to priority disease and health problems, including malaria, tuberculosis HIV/AIDS and reproductive health.

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Islamic Banking: Selection Criteria and Implications

GJHSS Classification –C (FOR)
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Abstract-Generally, this study offers a descriptive discussion of the acceptance of Islamic Banking but a special focus is on the factors that determine acceptance of Islamic Banking. This considers a sample of 450 respondents from Klang Valley using a non-probability sampling. This study widely uses nominal and ordinal measurement scales and thus, a non-parametric approach is adopted for statistical testing. The results indicate that cost-benefits, service delivery, convenience, friends/relatives' influence do have significant relationships with the acceptance of Islamic Banking.

Keywords-Islamic banking, selection criteria, Islamic principles

I. INTRODUCTION

The establishment of Islamic banking in Malaysia was influenced by both external and internal factors. The external factor could be referred to the establishment of Islamic banks in the Middle East and Islamic Development

Banking. Internal factors include the establishment of the Pilgrims Fund Board in 1963 and the supports from parties such as Bumiputera Economic Congress and National Steering Committee to established Islamic Bank in Malaysia (Islamic World, 2008). The application of Islamic law in banking received tremendous boost with the passing of the Islamic Banking Act 1983. Today, there are seventeen Islamic banking institutions in Malaysia, of which six are wholly foreign-owned and two International Islamic bank which are the Bank Syariah Muamalat Indonesia, Unicorn International Islamic Bank Malaysia Berhad (Bank Negara Malaysia, 2008). Now, there are more than 100 Islamic financial products and services offered by the banks using various Islamic concepts. The main products and services are divided in 5 categories that comprise of deposit, investment, financing, trade finance and card services. The list of Islamic Banks is given in Table 1

Table 1: List of Islamic Banks in Malaysia

No	Name	Ownership
1	Affin Islamic Bank Berhad	Local
2	Al Rajhi Banking & Investment Corporation (Malaysia) Berhad	Foreigner
3	Alliance Islamic Bank Berhad	Local
4	AmIslamic Bank Berhad	Local
5	Asian Finance Bank Berhad	Foreigner
6	Bank Islam Malaysia Berhad	Local
7	Bank Muamalat Malaysia Berhad	Local
8	CIMB Islamic Bank Berhad	Local
9	EONCAP Islamic Bank Berhad	Local
10	Hong Leong Islamic Bank Berhad	Local
11	HSBC Amanah Malaysia Berhad	Foreigner
12	Kuwait Finance House (Malaysia) Berhad	Foreigner
13	Maybank Islamic Berhad	Local
14	OCBC Al-Amin Bank Berhad	Foreigner
15	Public Islamic Bank Berhad	Local
16	RHB Islamic Bank Berhad	Local
17	Standard Chartered Saadiq Berhad	Foreigner

Source: Bank Negara Malaysia, 2008

II. DEVELOPMENT OF ISLAMIC BANKING

The first experiment in Islamic banking was set up undercover in Mit Ghazir, Egypt in 1963 by Ahmad El Najjar where the German Savings bank was modified to comply with Islamic principles. Later in 1974, the Islamic Development Bank (IDB) was established as a result of the second Islamic Conference of Foreign Ministers where they adopted a document on "Institution of an Islamic Bank, Economics and Islamic Doctrines". Then followed by the establishment of the first Islamic commercial bank in 1975, which is Islamic Bank of Dubai. Beginning in 1974, several Islamic banks have been established. Today, there are more than a hundred financial institutions that claim to be operating partially or fully on an interest-free basis in 34 countries (Islamic World, 2008).

III. DEFINITION AND PRINCIPLES

Islamic banking is the conduct of banking based on Syariah principles. Islamic bank is prohibited from taking and offering interest (riba). Islamic bank promote profit sharing. Profit sharing is two or more parties pool their sources for investment and share the investment profit and loss (Chong and Liu, 2005). In addition, Islamic law also prohibits gharar, which can be interpreted to mean "contractual uncertainty and/or ambiguity," and maisir, which is gambling. In Islam, money is a medium of exchange. It has no value in itself and should not be allowed to give rise to more money via interest payment. Islam upholds contractual obligations and the disclosure of information as a sacred duty (Kamal, Gupta, and Shanmugam, 2008).

IV. SIGNIFICANCE OF THE STUDY

Islamic Banking is growing rapidly over the past three decades. With Muslim population of the world today is estimated at about 1.5 billion, representing a sizeable 24 percent of the world population of 6.3 billion (Bursa Malaysia, 2005). This fact indeed triggers the interest of the researchers to understand better about the acceptance of Islamic banking. Hence, it is essentially important to recognize the factors that influence the acceptance of Islamic banking. The literature does recognize a number of factors, i. e. religion, cost-benefits, service delivery, size and reputation, staff factors, convenience, friend/relative's influence and mass media advertising. Malaysian model of Islamic banking today is one of the most advanced Islamic banking systems in the world. It is evident that the latest figures of market shares of Islamic deposits and financing stand at 15.6 percent and 11.6 percent of the industry's total respectively. The Islamic banking total assets were 6.9 percent in 2000, whilst Islamic banking deposits and financing constituted 7.4 percent and 5.3 percent respectively. However, total funds deposited in the Islamic system remain insignificant compared to the total deposits in the commercial banks. This could be an indicator of public unwillingness to use the system. Hence, it is worth to study on the level of acceptance of Islamic Banking since its establishment about 25 years, though there have been

studies conducted in the related area. Hence, more empirical work is needed to add more value to the literature of Islamic banking operations. Admittedly, this paper offers more insights by incorporating Malaysians' perception towards Islamic banking in general, the factors that motivate Malaysians to deal with Islamic banking in particular.

V. RESEARCH OBJECTIVES

As to continue the efforts of other researchers, the objectives of this study are, first to offer a descriptive discussion of the acceptance of Islamic banking. The second objective is to evaluate the factors that determine the acceptance of Islamic banking.

VI. LITERATURE REVIEW

1) Principles of Islamic Banking

Islamic banking is a form of modern banking based on Islamic legal concepts developed in the first centuries of Islam, using risk-sharing as its main method, and excluding financing based on a fixed, pre-determined return (Schaik, 2001). It aims to make an actual moral and equitable distribution in resources and social fairness in all Muslim societies as compare to the Western financial system that is based on the capitalistic features of economic and financial processes (Iqbal, 1997). The Islamic principles which govern the operations of Islamic banks are also known as Shariah principles. These principles come from the sources of the Holy Quran, Hadith, Sunna, Ijma, Qiyyas and Ijtihad (Gait & Worthington, 2007). One of the principles that must be adhered by Islamic banking is the prohibition of Riba. Riba is an Arabic word which stands for excess, increase, addition, expansion or growth. Any interest or predetermined payment over and above the actual amount of principle which is Riba is strongly prohibited by the Quran and the Sunnah. Karsten (1982) explains that Riba is prohibited because it reinforces the tendency for wealth to accumulate in the hands of a few, and thereby diminishes human beings to concern their fellow men. Furthermore, Islam does not allow gain from financial activity unless the beneficiary is also subject to the risk of potential loss. Lastly, Islam regards the accumulation of wealth through interest or usury as selfish compared with accumulation through hard work and physical activities. The second principle that must be adhered by Islamic banking is the prohibition of Gharar. Gharar is generally translated as risk, hazard or uncertainty. It implied Gharar as deception based on the absence of knowledge or the unlikelihood of delivery with the prospect of causing harm. Metwally (2006) also argues that Gharar are speculative transactions which are harmful to society. In Islamic banking, contracting parties should have perfect knowledge of the values intended to be exchanged in the transaction and the terms of the contract should be well defined and without ambiguity. The prohibition of Gharar is designed to prevent the weak from being exploited. Gambling and derivatives such as futures and options is believed to be violating the Gharar principle. The third principle is prohibition of Maisir. According to Ebrahim & Tan (2001), Maisir entails

speculative elements in a contract where expected gains are not clearly defined at the initiation of the contract. Iqbal and Molyneux (2005) state the reason behind prohibition of Masyir is that gambling and game of chance can lead to greater financial and societal problem. In addition, these are unnecessary for the society because they do not provide any surplus to the societal wealth. The next principle is profit and loss sharing (PLS) principle. PLS is a contractual arrangement between two or more transacting parties, which allows them to pool their resources to invest in a project (Schaik, 2001). The parties then share profits and losses on the basis of their capital share and effort and there is no guaranteed rate of return. Using this paradigm, it is able to simultaneously satisfy financial needs and respects Islamic mandates. According to Khan (1986) the primary advance of PLS is that it leads to a more efficient allocation of capital because the return on capital and its allocation depend on the productivity and viability of the project and therefore promote greater market discipline in Islamic banks. Besides that, the business and investment undertaken by Islamic banks must be on the basis of Halal (legal, permitted) activities. All activities should be in line with Islamic principles, with a special Shariah board to supervise and advise the bank on the propriety of transactions. Zakat is to be paid by the bank to benefit society (Lewis and Algaoud, 2001; Gait & Worthington, 2007).

2) Difference between Islamic and Conventional Banking

The key difference is that Islamic banking is based on Shariah foundation while the conventional banking does not. (Ust Hj Zaharuddin, 2007). Islamic bank's functions and operating modes are based on the Syariah rules. All business activities of Islamic bank must be in compliance with Syariah requirements. Any transactions which violated the principle of Syariah will be null and void. The second characteristic that distinct Islamic banking from conventional banking is the nature of relationship between customer and the bank. In the case of Islamic banking, the relationship between Islamic bank and customers is investor and entrepreneur relationship. Islamic bank recognized customers as a partner rather than a borrower or debtor as practiced in conventional banking (Khir, Gupta, & Shanmugam, 2008). The next difference is the prohibition of Riba. The act of a bank to obtain any benefits without bearing the liability of a transaction will be considered as 'Haram' or prohibited in Islam (Haron & Ahmad, 2000). Islamic bank believes that the income the bank earns must be justified by the risk it shares with the customer in any transactions. On the other hand, conventional bank is interest base oriented. Conventional bank charges and receives fixed or floating interest rate for the financing and deposits. (Khir, Gupta, & Shanmugam, 2008). The fourth difference is that Islamic bank usually provides financing thru equity participation. In this mode of financing, the bank and entrepreneur will provide capital jointly to carry out the business project. Profit and loss generated from the investment will be shared based on the pre-agreed ratio

between bank and the entrepreneur. In the case of conventional bank, this type of practice is generally not available. The bank will only provide financing to borrower on an interest basis (Khir, Gupta, & Shanmugam, 2008). Every Islamic bank is required to have a Shariah Supervisory Board to ensure that all business activities are in line with Syariah requirements. The board will decide what and which activities Islamic bank can involve. On the other hand, conventional banking has no such requirement. It can conduct its business operation at its own discretion as long as the bank do not violated the law the guideline issued by the Bank Negara Malaysia (Khir, Gupta, & Shanmugam, 2008).

3) Selection Criteria Of Islamic Banking

The first selection criterion is convenience. Convenience include factors such as convenient working hours of ATMs, convenient branch locations and wide branch network convenience, location being near home or work (Haron et al., 1994). Kaynak and Whiteley (1999) observed that the convenience of a bank was a primary motivation for customers in selecting a specific institution. Riggall (1980) in his survey on 250 newcomers to a community in the United States of America also found that convenience of location to both home and work appeared to be the most influential factor for bank selection by newcomers. It was also found that pricing and convenience were the main reasons for selecting a new bank or switching banks (Mokhlis., Hazimah., & Salleh, 2008). The second selection criterion is cost and benefit. Khazeh and Decker (1992) identified interest rates as one of the top five determinants factors that influenced the banking decision among 1198 of business school alumni of Salisbury state university in Maryland. Gerrad and Cunningham (1997) also found that profit or interest rate served as a reason for people maintaining their relationship with Islamic banks. Similarly, Islamic banks in Sudan never reward their current account holders, but a bulk of their funds is supplied through these facilities in light of the Islamic principles (Haron and Noraffifah, 2000). The third selection criterion is the influence by friends and relatives. The importance of recommendations or word-of-mouth in the formation of attitudes in a service purchase decision making context has been discussed in many studies (Wangenheim and Bayon, 2004; Grace and O'Cass, 2003), especially in professional services (Razzouk et al., 2004; Ettenson and Turner, 1997). A study reported in unpublished dissertation of Gray (1977) described an investigation of student attitudes towards banking in the U.K. He reported convenience and parental influence were the most important factors influencing British students' bank selection. Zainuddin et al. (2004) in his study of Malaysian bank customers (to illustrate the different perceptions of users and non-users of Islamic banking services) found out that the decision-making processes of Islamic bank's users were affected by spouses, friends and relatives as well as their innate religious motivation. The fourth selection criterion is mass media advertising. Edwards (1973) and Kohers and Simpson

(1981) found that a negative but insignificant association between profitability and advertising intensity. Ors (2003) on the role of advertising in commercial banking, found that advertising played a significant role in banking and positively affected the profitability. It was evident that there were size advantages for advertising in banking. Sudin et al. (1994) found that apart from other factors, mass media advertising was considered as an unimportant factor in the bank selection factor, moreover, although mass media advertising was less important for a customer as the bank selection factor, commercial banks were still willing to invest a large amount of money for advertising for greater competitiveness despite the uncertainties of its return. The next selection criterion is religion. Kirkpatrick (2005) defines religion as psychological attachment, a powerful emotional relationship to things. Omer (1992) indicates that religious reason is the primary variable that influences the volume of deposits of Muslims in UK in Islamic financial institution. He also reports that the higher the religious commitment and the lower the level of general education, the stronger the preference for Islamic over conventional finance. Haron et al. (1994) argued that only 38.7 percent of the respondent indicated that religion was a prime reason for using Islamic banking services. Gerrard and Cunningham (1997) found no difference between Muslims and non-Muslims on bank selection criteria. However, Othman and Owen (2001) concluded that cultural and religious factors were identified as the most influential factors that affect Islamic banking adoption in Kuwait. Wakhid and Efrata (2007) stated that religious factor as the key factor that would influence Islamic banking adoption. The sixth selection criterion is size and reputation. Turnbull (1983) found that size of the bank was a significant factor in the choosing a conventional bank because of the need of increasing amount of credit. Tyler and Stanley (1999) found that bank size, reputation and reliability were the crucial factors to gain customers' confidence. Javalgi et al. (1989) argued that reputation could be one of the main criteria. The result was supported by Kennington et al. (1996) who also concluded that the bank's reputation was the most significant factor. Erol and El-Bdour (1989) revealed that customer perceived bank's reputation as one of the most important factors on the selection of the bank whether Islamic or conventional. Sudin et al. (1994) argued that the reputation and image of the bank was ranked the third among non-Muslims respondents. The next selection criterion is service delivery. Lamsali et al. (2005) reveal that it is essentially important to understand the importance of the service quality elements and that understanding on

which dimensions of service quality that significantly influence customer satisfaction. However, Choi and Valikangas (2001) argue that customer service quality is an important tool, but it cannot create sustainable value unless incorporated with more innovative and forward-looking strategies. Choi and Valikangas (2001) also argue that the quality is no longer a competitive differentiator. The last selection criterion is staff factor. Anderson and Cox (1976) found that one of the five most important bank selection criteria was friendliness of staff. Conversely, many customers are neither able to understand nor confident in using self-service machines (Chaoprasert and Elsey, 2004). Sudin et al. (1994) also sought to establish the relative importance of certain bank selection criteria using the Malaysian context. Friendliness of bank personnel is ranked third most important criteria in the bank selection process for Muslims. Staff friendliness was ranked number six for Muslim while it was ranked number eight for non-Muslims (Gerrard and Cunningham, 1997).

VII. METHODS, MEASURES AND PROCEDURES

Specifically, this research looks for some empirical evidence that could be used for explaining the relationship between the factors/selection criteria and acceptance towards the Islamic banking. Data were gathered through questionnaires. Pilot test was conducted to ensure consistency and validity of the measures. A sample size of 450 respondents from Klang Valley was considered for the study and it was a non-probability purposive sampling to suit our requirements. A descriptive analysis via cross-tabulations was first performed then followed by rank test using the means cores. A non-parametric approach was adopted for testing the hypotheses. The dependent variable referred to the acceptance towards Islamic Banking which was actually a dichotomous variable (yes or no). The independent variables were rated by the respondents using a five-point likert scaling. As result, this paper used a non-parametric test, i.e., chi-square test. This non-parametric test could still meet our expectation especially for an exploratory work. A descriptive presentation and the use of non-parametric testing were intended to offer more insightful information in relation to Islamic banking operations.

VIII. FINDINGS AND DISCUSSIONS

- a) below presents respondents' profile.

Table 3: Respondents' Profile

Demographic factors	Details	Percentage
Religion Status	Muslim	55
	Non-Muslim	45
	Total	100
Race	Malay	50
	Chinese	30
	Indian	18
	Others	2
Gender	Total	100
	Male	46.4
	Female	53.6
	Total	100
Age	Less than 24	25.8
	24-39	31.6
	40-55	28.9
	more than 55	13.8
	Total	100
Education level	Primary/ Secondary school	33.6
	College diploma/ Matriculation/ A-Level	30.7
	Bachelor	24.2
	Professional Qualification	8.0
	Postgraduate (Master or PhD)	3.6
	Total	100
Type of Occupation	Student	14.7
	Non-executive	34.2
	Executive	24.2
	Professional	7.3
	Self-employed	7.8
	Unemployed/ Retired	11.8
	Total	100
Current Income	Less than RM 1000	30
	RM 1000 - RM 3000	35.8
	RM 3001 - RM 5000	19.2
	RM 5001 - RM 10000	8.9
	RM 100001 - RM 20000	5.1
	More than RM 20000	1.1
	Total	100

Based on Table 3, 38.7 percent of the respondents were Muslims and 61.3 percent were non-Muslims. Malay, Chinese and Indians accounted for 50, 30 and 18 per cent respectively. 53.6 percent were female and 46.4 percent were male respondents. The largest age group of respondent was from the age group of 24 to 39 years old which accounted for 31.6 percent. Respondents between 40 to 55 years old carried second a larger percentage (28.9 percent). Besides that, it seemed that most of the respondents were

from primary or secondary level which consist of 33.6 percent and followed by respondents with College diploma/

Matriculation/ A- Level, which comprised of 30.7 percent. Percentage od respondents who held a Bachelor Degree was 24.2, while those with professional qualification registered about 8 percent. Master or PhD accounted for only 3.6 percent. There were 34.2 percent of who were in the non-executive category. 24.2 percent were under executive while 14.7 percent were students. 11.8 percent of the respondents were unemployed or retired. Respondents who were self-employed comprised of 7.8 percent. The majority of the

respondents (35.8 percent) earned between RM 1000 to RM 3000 monthly. Respondents were mainly under executive or non-executive. 30 percent of the respondents earned less than RM 1000, this consist of respondent who were under the category of student and unemployed or retired. There were 19.1 percent of the respondents received salary between RM 3001 to RM 5000 and 8.9 percent of the respondent received salary between RM 5001 to RM 10000.

5.1 percent of the respondents earned monthly income between RM 10001 to RM 20000. Only a very small proportion of respondents, which were 1.1 percent, earned more than RM 20000. Respondents who earned more than RM 3000 normally worked as professional, executive or self-employed.

b) Knowledge on Islamic Banking

Table 4: Knowledge on Islamic Banking

	Do not know	Know a little	Have knowledge	Total
Overall Knowledge	29.1	57.6	13.3	100
Islamic Banking Concepts	57.6	38.2	4.2	100
Products and Facilities	40.4	53.3	6.2	100
Differences of Islamic Products	40.2	52.2	7.6	100

Based on Table 4, it seemed that majority of the respondents knew only a little knowledge on Islamic banking (57.6 percent). However, 57.6 percent of respondents did not know at all about the basic Islamic banking concepts. Only 6.2 percent of the respondents possessed knowledge on the

products and facilities offered by Islamic banks. In addition, 7.6 percent of the respondents were seemed to have some knowledge about the differences of the Islamic banking products.

c) Personal Opinion

Table 5: Personal Opinion

Personal Opinion		Percentage
Reason for selecting Islamic Banking :	Strictly religion Economics Both religion and economics No opinion	20.40 25.30 38.90 15.30
	Total	100
Potential of Islamic Banking	Very good potential Good potential Some potential No potential No potential at all	10.20 36.00 32.90 4.90 0.90
	Total	100
Different Name in Highlighting the Product	Absolutely true True Partly true Untrue Absolutely untrue	2.20 19.30 48.40 22.90 7.10
	Total	100
Product Marketing	More than enough Enough Just enough Not enough Not enough at all	1.10 10.70 19.60 49.60 19.10

	Total	100
Reasons not accepting Islamic Banking	Perception that Islamic Banking is for Muslim	39.30
	Lack of understanding and information	47.30
	Lack of product varieties	10.00
	Lack of available credit with favorable term	6.66
	Lack of Investment opportunity	11.35
	Higher commission and fee	0.66
	Insufficient branch network	18.00
	Lack of financial counseling	15.33
	Others	0.66

From the result above, it was noted that both religion and economics factors affected most of the respondent in choosing Islamic banking by 38.9 percent 36 percent of the respondents felt that Islamic banking would have potentials to grow. On the contrary, there about 1 percent of the respondents felt that Islamic banking did not have any potential to grow. A very high proportion of respondents (48.4 percent) agreed to the fact that it was partly true that product available in Islamic bank and conventional bank were similar but the difference was actually on the terminologies used. Meanwhile, 49.6 percent of respondents

agreed that Islamic banks had not done enough in marketing their products. On the reason why people do not accept Islamic Banking, it seemed that 39.3 per cent perceived that Islamic banking was only for Muslims, lack of understanding and information on Islamic banking was also another main reason (47.3 percent). Meanwhile, lack of Islamic product varieties, lack of available credit with favorable term, lack of investment opportunities, insufficient branch network, lack of financial counseling (10.0 per cent, 6.7 per cent, 11.3 per cent and 18.0 per cent respectively).

d) Selection Criteria

Table 6: Rank of Banking Selection Criteria

	N	Mean	Std. Deviation	Importance Rank
Cost/Benefits	450	3.94	.930	1
Convenience	450	3.90	.918	2
Service Delivery	450	3.83	.965	3
Friend's and Relative's Influence	450	3.31	1.103	4
Religious Factor	450	3.25	1.286	5
Size and Reputation	450	3.19	.831	6
Staff Factors	450	3.15	1.028	7
Mass Media Advertising	450	2.34	1.013	8

Based on the results in Table 6, it was noted that cost-benefit was the most important criterion for the acceptance of Islamic banking. It registered the highest mean scores (3.94). This was followed by convenience and service

delivery (3.90 and 3.83 respectively). Friends' and relatives' influences and religious factor were said to be the fourth and fifth important factors with the mean scores of 3.31 and 3.25. Mass media advertising registered the lowest score among the eight criteria.

Table 7: Chi Square Results between the selection criteria and acceptance of Islamic banking

Hypothesis	Bank Selection Criteria	Chi-Square	p-value*	Results
1	Religion status	10.611	0.031	Sig
2	Cost/Benefits	16.685	0.002	Sig
3	Service Delivery	12.439	0.014	Sig
4	Size and Reputation	9.089	0.059	Not Sig
5	Staff Factor	8.786	0.067	Not Sig
6	Convenience	11.980	0.018	Sig
7	Friends/Relatives' Influence	9.682	0.046	Sig
8	Mass Media Advertising	8.616	0.071	Not Sig

Based on the results presented in Table 7, religion, cost/benefits, services, convenience and influence of friends/relatives registered a significant relationship (at 0.05) with the acceptance of Islamic banking. Whereas, size/reputation, staff factor and advertising were said to be less significant (at 0.10). However, it should be noted that the most important (significant) factor was cost/benefits (0.002), followed by service delivery (0.014) and convenience (0.018) and not the religion status of individuals.

IX. CONCLUSIONS AND IMPLICATIONS

This paper provides some important information on the development of Islamic banking. The findings indeed help the relevant parties to further enhance the development of Islamic banking in Malaysia especially on selection criteria preferred by the people. It can be concluded that be it Muslims or non-Muslims, factors such as cost-benefit, service delivery, convenience and influence by friends are the main determinants of accepting Islamic banking. Thus, ethnic background and religion do not really have a significant impact on the selection of Islamic banking. This could be a valuable input for local banks to spread their wings in getting wider markets for their Islamic financial products. However, banks should take note of people's insufficient knowledge in Islamic banking system into consideration especially when promoting Islamic financial services. Hence, banks should revamp their marketing activities accordingly. Therefore, there should be more qualified experts or knowledge-based workforce absorbed into this industry to promote greater innovativeness especially in dealing with Islamic financial products. In light of this, participation of the both public and private universities in the banking sector could offer more input (e.g. designing Islamic financial instruments) for the growth of the Islamic banking.

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Developing African Entrepreneurs for Global Dominance from Late 21st and Through Out 22nd Centuries.

GJHSS Classification -C (FOR)
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Abstract-The paper considers all the processes of nurturing the entrepreneurial personality, right from childhood to the time of retirement from active entrepreneurial practice, if ever possible, as development. It also specifies development as a construct used to explain economic expansion. It posits an agenda of developing the entrepreneur from cradle to the grave which involves active participation of virtually all forms of institutions in the society. Two models are used as vehicle for conveying the demands and processes of developing African entrepreneurs for global dominance from the 21st and throughout the 22nd centuries. The paper contends that the era of relying on natural entrepreneurs for economic development, based on the experience from South East Asia is gone. Therefore, if we hope to have great and dynamic economy, we must develop indigenous entrepreneurs by equipping them with necessary capacity to face the challenges of the 21st century. This calls for active involvement all economic, social, political, technical institutions and offices. It also demands the development of multiple skills in our entrepreneurs. Twenty eight of such skills are outlined for future trainers of indigenous entrepreneurs in Africa.

I. INTRODUCTION

The entrepreneur in the context of this paper is the originator or creator of a profit seeking organ of the society or economic organization established for the purpose of providing goods and services for the consumption of the society, in which such organization is located. The entrepreneur is often referred to as the agent of economic, technological and social changes, because of the multi dimensional roles that he plays in the economic, technological and social systems (Ogundele and Olayemi, 2004). Entrepreneurship is considered as the processes of emergence, behaviour and performance of entrepreneur (Ogundele 2004a). The formal processes of equipping the entrepreneur with necessary insights and skill are through formal education, entrepreneurial training and development. Education is commonly considered as formal process of learning in school, college or university. The purpose of education is to develop the individual and it is broad in scope.

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Udo-Aka (1987) considers education as involving the acquisition of general knowledge and development of basic mental capacity. Therefore, the main burden of education falls upon our formal school system, since education is concerned with increasing general knowledge and understanding of the total environment (Flippo, 1966). It is to be noted that business firms, religious, institutions and other forms of social organizations are also involved in the educational process. Training is considered as the organized procedure by which people learn knowledge and/or skills for definite purpose (Beach, 1975). The objective of training is to achieve change in behaviour of the trained. Yoder (1963) notes that training means to educate somewhat narrowly, by instruction, drilling, discipline and other methods of modifying behaviour. Learning is another related concept, which is the human process by which skills, knowledge, habits and attitudes are acquired and utilized in such a way that behaviour is modified. Thus education as used here is inclusive of training and learning processes. Development in the general sense is many-sided process. At the individual level it implies increased skill and capacity, greater freedom, creativity, self-discipline, responsibility and material well being (Rodney, 2005). The achievement of any of those aspects of personal development is very much tied in with the state of the society as a whole. At the level of social groups development implies an increasing capacity to regulate both internal and external relationship. Rodney (2005) is of the view that the tool with which men work and the manner in which they organize their labour are important indices of social development. Rodney (2005) notes further that development when used exclusively in economic sense is in relation to how members of a society increase, jointly their capacity for dealing with the environment. This capacity is dependent on the extent to which they understand the laws of nature (science) and on the extent to which they put (technology) and on the manner in which work is organized. All these are assisted by the processes of formal education, training and development in the society.

II. CONCEPTUAL FRAMEWORK

The developmental theory developed by Singh (1986), has as its foundation massive education, training and development of the entrepreneurs from childhood, on the need for achievement motive. Singh (1986) notes further that entrepreneurial performance is influenced by three factors. First factor is his or her attitude towards his/her

occupation. Second, the role expectations held by the sanctioning groups. Third factor is the operational requirement of the job. He notes that society's values are most important determinants of the first two factors, education, training and development is crucial for the third. Rao, Wright and Mukherjee (1990), note that the focus of development approach is entrepreneurship skill. These skills include: (1) development of entrepreneurial spirit, characteristics and personality (2) development of technical, technological and professional competencies needed for productive work employment (3) Development of enterprise-building and small business development, capabilities to initiate and start one's own business or self-employment and (4) Development of Managerial capability to run the business and other self-employment activity successfully.

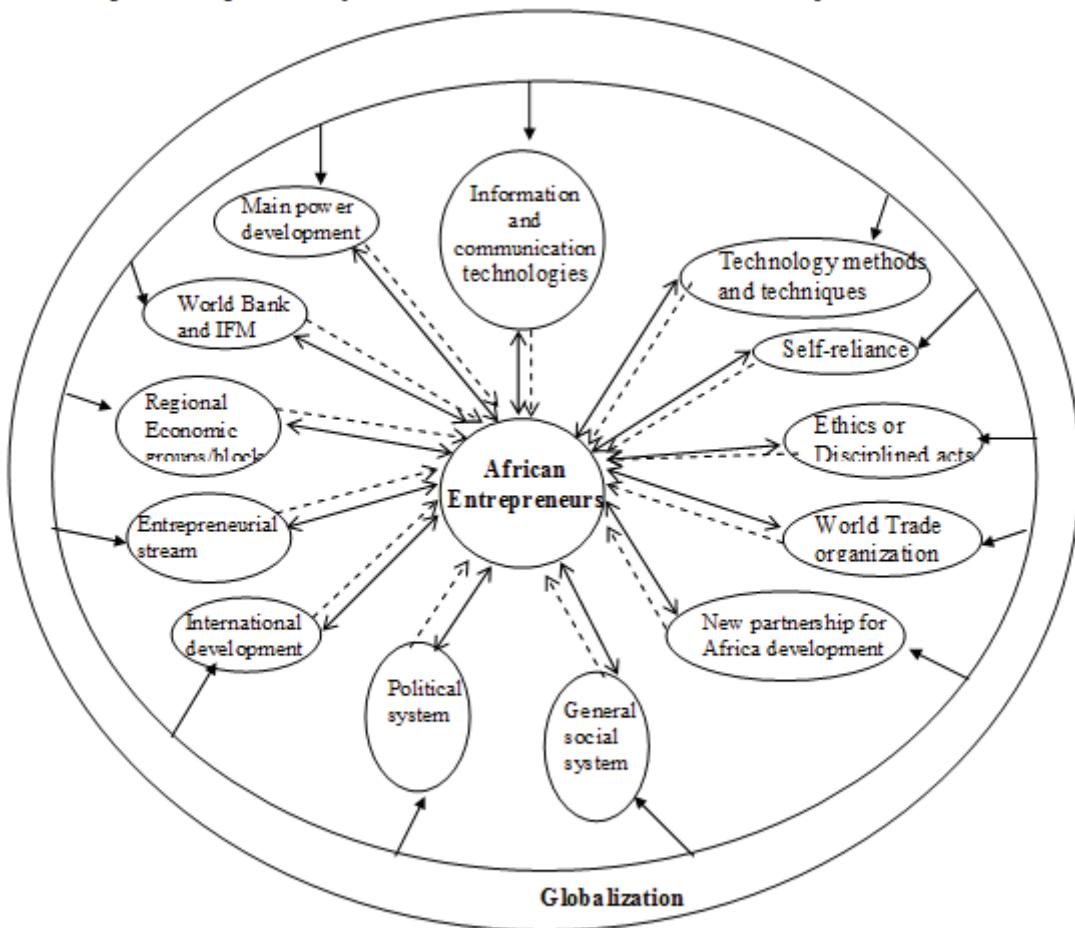
III. MODEL OF AFRICAN ENTREPRENEUR IN A GLOBALIZED SYSTEM

Figure 1 below depicts the entrepreneur in the center of a cobweb like circle of the global system with 13 relevant environmental elements ranging from technology, political system, international agencies to regional blocks and others. The number of elements could be expanded to include all relevant factors. Globalization and each of the relevant environmental elements create challenges of endless list for the entrepreneur. The African entrepreneur will need to be adequately equipped to cope with the challenges. If so how should he/she be developed to cope and to have appropriate and adequate responses to these challenges? In Figure 1 below, the central circle surrounded by the thirteen elements stand for African entrepreneurs. The outer circle represents globalization. From it, arrows branched out to each of the other elements impacting on entrepreneurial development. This is to show that globalization has its own distinct effects on each of the elements. The inner double-edged arrows show impacts of the various elements on African entrepreneurs and that of African entrepreneurs on each of them. The inner arrows with broken lines stand for the challenges posed by various elements to African entrepreneur. An examination in brief of the impact of globalization and the challenges of some of the elements are given below:

IV. ENVIRONMENTAL CHALLENGES TO THE AFRICAN ENTREPRENEURS

A look at Figure 1: Model of Globalized system and some elements of the environment, reveals that each of the elements poses separate and distinct challenges to the entrepreneurs. Self-reliance one of the elements means autonomy, independence, full use of ones talents and capacities, and growth in all directions. In short self-reliance is challenging the African entrepreneurs to make full utilization of all available resources to be self-dependent to a reasonable level. This will imply that human talents are being effectively utilized with the result that there will be minimal level of unemployment. The African entrepreneurs will need to develop skill in self-reliance for global effectiveness. The globalized system has the political system in operation within a specified geographical area, which determines desirable patterns of economic development as another element. In Nigeria we are operating a Federal democratic system of government. The Federal government in the early 'part of 2004 put forward the National Economic Empowerment and Development Strategy (NEEDS) as the vehicle for the Nations economic development. NEEDS is a completely home made response to Nigeria's past efforts at economic development which have failed to produce the desired result. Ethics or disciplined behaviour is a value concept, which has to do with rightness or wrongness of action. It has relevance in a globalized system. Ogundele (2000) reported that acts of indiscipline was the second most important problem facing indigenous entrepreneurs in Nigeria. Frimpong and Jacques (1999) edited collections of academic works that emphasized the entrenchment of corruption in Sub-Saharan Africa. Therefore the African entrepreneur is confronted with challenges of unethical behaviour, of government agencies, competitors and customers. It is a challenge that is slowing down the rate of meaningful capital flow into the continent outside South Africa and North Africa. The inclusion of re-orienting the value system of the populace as one of the major thrust of NEEDS in Nigeria is a step in the right direction. This will provide opportunity for developing valued behaviours in African entrepreneurs.

Figure1. The globalized system, environment elements and African entrepreneurs.



Source: Developed by the author and Adapted from O.J.K. Ogunjide (2004 globalization and development, multidisciplinary journal of Research Development. Vol. 3, No. 2., p.3.

Each of the other elements in Figure 1 above, have their distinctive challenges. The World Bank and International Monetary Fund (IMF) have their conditionalities which are concrete blocks against any meaningful development programmes by the poor African countries. How can the African entrepreneurs wriggle themselves out of the net of World Bank and IMF for meaningful economic growth? The solution for this also rest on developing in African entrepreneurs appropriate skills in self-reliance, foresightness and global business operations. Also the regional economic groups' e.g. Economic Community of West African States (ECOWAS) throws up wider market opportunities to the African entrepreneur. It thus challenges their capacities, and initiatives in coping with the environmental opportunities. This requires skills in cross-national business operations; it again emphasizes the needs for global executive's skills. The lists of executive challenges given above are merely illustrative. They show the need for manpower development as it affect the general social system, and also providing or developing global skills in the African entrepreneurial stream. The entrepreneurial stream stands for various groups of entrepreneurs of diverse descriptions in any given geographical area. They are the

torch bearers for any meaningful progress and development. Therefore, equipping the African entrepreneur with necessary skills for global effectiveness should be of concern to government, academician, human resource consultants, educational institutions, government agencies, international groups that are interested in the development of Africa.

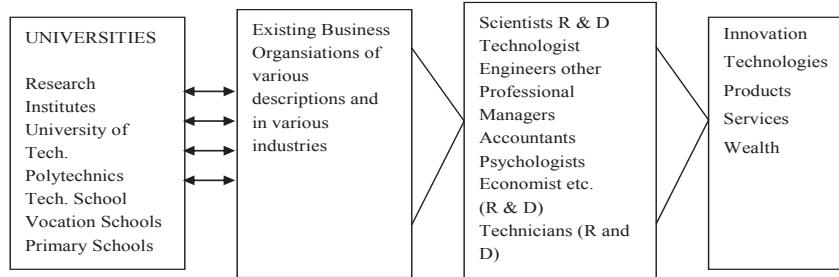
V. INTERACTIVE MODEL OF SOCIO-ECONOMIC DEVELOPMENT

The Interactive Model of self-reliant socio-economic development is intended to complement the model on entrepreneurial development with a view to producing technologically innovative and result oriented entrepreneur who have practical training in relevant industrial sectors of the economy. In Figure2 below, the principal institutions of development are the school and factory. In the model, they are sandwiched together by the double-headed arrows. Ascending arrows in the school system depict academic career growth whereas descending ones emphasize the role of the higher institutions to provide instruction to the lower levels. The sandwiched institutions give students at all level opportunities to match their classroom learning with practical work experience in industry. Workers in the

industry will, also continue their school learning part time. This will eliminate unemployment. It will also ensure that learning and research are made relevant to the development needs of African countries (Ogundele 2005a). Figure 2 below is modified version of the proposal by Ekpo-Ufot (1990) with the focus on developing indigenous technology. The operations of the experiment depicted in the model are

through the Ministries of Education and Science and Technology in each African country. The Ministry of Science and Technology has the most important responsibility to discharge. These are in planning and executing the experiment. The operators are:

Figure 2: An Interactive Model of Self-Reliant Socio-Economic Development



Source: Adapted from Ogundele (2005c).

(1) The school system
 (2) Existing business sector of the economy. They will contribute fund to the national R and D, which must be compulsory in each country.
 (3) National, State and local governments will also contribute which will be used to establish R and D Corporation, with three major divisions suggested in the case of Nigeria these are, instructional and scientific equipment, and motor vehicle and food processing. The development activities will involve students in formal educational systems, and other forms of training and development on short term basis provided for the general public. This is a form of massive evangelistic entrepreneurial education, training and development in various forms of social institutions e.g. schools, clubs, corporative societies, churches, mosques etc. each country will set its own area of important priorities. The lesson that we have learnt from the Asian Tigers is that effective entrepreneurial education, training and development are the only sure path to national economic development. African countries can tread this path through the collaborative and interactive efforts of the educational institutions, the government, business organizations and other relevant social institutions listed above. The end result will be mass turnout of creative agents of development – the entrepreneurs. The products of the interactive model would be technologists, innovators, scientists, engineers, accountants, technicians who are entrepreneurs in their own rights. Hamilton (2006)

in an interview with an indigenous entrepreneur in Nigeria states that Durojaiye (the entrepreneur interviewed) reported that waste management idea first came to him in 1991, but he built his first set of mobile toilets on a wagon in 1996. He imported his first set of plastic mobile toilets in 1999. He started manufacturing the same in Nigeria in 2002. That he used to import plastic mobile toilets into the country, but now he exports to other countries in the spate of about eight years. Durojaiye notes that until, now waste management had been seriously neglected to the background and he stated that if as a nation Nigeria puts her priorities right and decide to manage waste properly, it can become the biggest income generating source, next to oil. He puts up a challenge – “give me N100 million today, I will sign an undertaking for you to tie me up to a pole and get the firing squad to shoot me if I am unable to create, 200,000 jobs in two years, with 150 million Nigerians generating feaces everyday, more mobile toilets are needed”. This is the type of entrepreneur are the ones needed for African dominance of the global economy before the close of this century and beyond.

1) Massive Evangelistic Entrepreneurial Education, training and development a Must for National Development in Africa

Recent developments in South East Asia have clearly shown other Third World Countries and Africa, that a nation's progress and economic development is not essentially

constrained by the levels of natural resources it possesses, but by the human capacity and capability in responding to challenges in the environment. The Asian Tigers have developed and equipped their human assets with orientation and capacity for spontaneous responses to opportunities of wide ranging patterns both near and far. Because of appropriate entrepreneurial education, training and development, right from childhood every six out of ten people in Indonesia are entrepreneurs. The truth is that entrepreneurship has become a culture of that country and indeed all the Asian Tigers. That is why their economies are the fastest growing and developing ones in the world today. Consequently, entrepreneurship development has equipped the Asian Tigers with the competencies of turning their economies to very dynamic ones for national development. For African countries to move into the club of great and dynamic economies, there must be massive evangelistic entrepreneurial education training and development (Ogundele, 2005b). The outline of the desirable and proposed entrepreneurial educational, training and development agenda for Africa entrepreneurial and the continent's development is provided below.

2) *Installing Educational, Training and Development Programmes for Entrepreneurial Development in Africa.*

It must be stated here, that the levels of formal education will affect entrepreneurship (Ogundele, 2000). In addition, the levels and types of technical, vocational, managerial and other forms of specialized education, training and development will equally affect entrepreneurship. The other side of the coin is that the lack of appropriate and necessary education, training and development would adversely affect the pace of emergence, patterns of behaviours and consequently lead to a slow pace of performance of the economy. Therefore, appropriate entrepreneurial educational training and development programmes must be provided for pupils and students at various levels of Africa nation's educational systems and for the adults in other forms of social institutions of which they are members. At the primary level, it is not enough to teach pupils the skills of reading, writing, calculating and elementary science. They must be taught how to apply these skills in solving the problems of society or have the skills that can be used to provide goods and services to the society. There is also the need for entrepreneurial education at the secondary level in Africa. In Nigeria for example, if the 6-3-3-4 educational policy in Nigeria is made functional there would have been little problems in building on the foundations which would have been laid at the primary schools level. During the first three years teachers at the secondary school level will have to build on, and further develop the skills of intuitive sensitivity, self-awareness, risk taking, visionary consciousness and multicultural responsiveness whose foundations should have been laid at the primary school level. At secondary school level the last three years of the students will focus efforts in areas where they have exhibited the best competences to contribute most to the societal development. Those who are not best suited for pure

academic pursuit would at this level branch out into relevant vocational areas for them. The tertiary level includes the colleges of education, the polytechnics, the universities at graduate and post graduate levels and other forms of private initiatives designed to promote entrepreneurship. The best practice will be to ensure that students take at least a course in entrepreneurship in every year of their academic pursuit at the tertiary educational level, under varying titles such; as entrepreneurship development, small business management, management of small scale industry, managing your own business etc.

3) *Skills to be developed in Entrepreneurs and the general populace for Africa Development in the 21st Century*

The demands of globalization have shown that African entrepreneurs must have multiple skills if they are to be agents of national development. Ogundele (2005b) presents three broad categories of such skills which have twenty eight elements. The first is *Management Development Perspective Skills*. There are thirteen elements in this category they are; time managements, entrepreneurial self-development; managing change for competitive success; Decision-making; human resources environment of business; helping people to learn; team building; project management; re-engineering or business process redesign; total quality management, organizational development, corporate excellence and people skills. The second is *interpersonal skills*. There are also twelve elements in this group they include; leadership; subordinate development, delegation and counselling; information technology, re-engineering entrepreneurial values for the 21st century; entrepreneurial effectiveness; motivation and entrepreneurship ventures; managing information; employee empowerment; conflict management; negotiation; and communication skills. The third category is *cross-sectional skills*. This group consists of four elements which are innovation/creativity, planning, organizing and Kaizen skills. Apart from the 28 skills areas listed above, other areas where skills development are necessary for Africa entrepreneurs are in cultural adaptation, managing knowledge for organization success, creating participative organization, quality customer service, managing ones health, physical, mental, job specific, technical, transfer of knowledge and human relations skills. These skills must be developed in African entrepreneurs so as to be able to face effectively the challenges of globalization and other environmental factors, which will lead to national development. The above outlined educational and developmental programmes and areas of skills development constitute the proposals of evangelistic agenda for entrepreneurship education training and development. The adaptation and implementation of these proposals should be the sure foundations for rapid African development in the 21st century which will develop African entrepreneurs for global economic leadership in the late 21st and throughout 22nd centuries. In summary, modern entrepreneurship can be defined as anticipating the future requirements of society

and successfully meeting these with new, creative and imaginative combination of resources. Other critical resources are information, superior organization, talented and professionally trained people and last but not the least, time itself. These requires organizations as well as individuals with entrepreneurial skills to foresee the future needs of the society and develop new and better ways of fulfilling needs these individuals must be developed now in Africa to meet the challenges of the 21st century and beyond. The entrepreneurial decisions to be made now and in future are strategic decisions on the direction in which entrepreneurs shall follow into an always unknown and uncertain future. Analysis and information no matter how good, will never make these decisions for the entrepreneurs, entrepreneurial decision must of necessity be made on inadequate information. African entrepreneurs must have an acute sense of timing to be able to lead the global economy later in this century and into the next century. Therefore Africa has to develop her tomorrow's business leaders today. Tomorrow's African entrepreneurs and business leaders will need to be able to organize for entrepreneurship. It requires being capable of making effective economic decisions regarding the future.

There is also the need to build in our entrepreneurs the capacity for systematic innovation. They have to know how to anticipate innovation and how to make innovation effective – rapidly and profitably. The organization they will build and lead will essentially be an organization of knowledge workers, highly educated people who put to work knowledge and concepts. The African business entrepreneurs of tomorrow will have to be able to run business that operate across national boundaries and are truly "multi-national". The African entrepreneurs now and in future must know much about other institutions of the society, especially about government, government agencies, educational institutions and others relevant social constituencies and the global environment. The four categories of developing the entrepreneurs call for massive propagation, at local state and federal government levels. Other relevant actions that will complement the approaches listed above include the follows:

- 1).Commonly accepted slogan on dignity of owing your own business should be developed around which all propaganda is build. This should be propagated in all major African languages.
- 2).The mass media must be actively involved in mobilizing the masses for effective entrepreneur activities to promote national development
- 3).High employment salaries e.g. paid in oil sector, bank and especially politicians are disincentives to entrepreneurial development. Government should therefore create fund to assist genuine entrepreneur before their ventures begins to yield returns e.g. graduate and those thrown out of jobs consequence upon current economic reforms.
- 4).Electronic commerce has been used by all developed countries to achieve greater strides in taking advantage of globalization and attendant competition. This should be positively employed in Africa.

5).Women should be used as a special group in this proposed programme they are in the majority and they need more flexibility in the use of their time than men.

6).Rural areas must be properly integrated in the programmes it should not be an urban affairs we must bridge in gap between aging retiring entrepreneurs and their young successors to minimize the problem of entrepreneurial succession.

7).Government is to concentrate more on infrastructure development at all levels, local, state and federal. Abercrombie, Hill and Turnor (2000)

8).There is the need for moral entrepreneurs championing the restoration of proper moral values, as a crusade against unethical business actions on the part of beneficial from the proposal entrepreneurial development evangelistic agenda.

VI. CONCLUSION

Education training and development play very crucial roles in entrepreneurial development and skills acquisition. It is the position of this paper that the hope for any meaningful development that will produce great and dynamic economy in Africa in all aspects of its peoples endeavours lies in rigorous and massive entrepreneurial education, training and development, right from childhood and continually until one retires from gainful employment. At the primary school level the "catch them young concept" should be the central objective. At the secondary and tertiary levels students are to be provided with some form of background knowledge on entrepreneurs and based on model 2 in figure 2, this should be complemented with industrial experience by the learners. For example, at secondary, polytechnic, undergraduate and graduate levels students presently are being provided with conceptual skills and technical skills which entrepreneurs require to perform in specialized functional areas such as accounting, marketing, production, personnel etc. The dynamic global environments require that skills should be upgraded constantly hence the need for expansion as provided in the 28 listed skills area. Several private and government agencies in Nigeria e.g. Administrative staff college of Nigeria (ASCON) and Centre for Management Development (CMD) have programmes for developing indigenous entrepreneurs to upgrade their skills. The methods of training and development and the course contents in all these institution need to be refocused and upgraded based on the discussion in this paper. There is need for a "people change approach" if we are to have great and dynamic economy in the 21st century. We need to show that man and not materials should be the focus of development for a purposeful great and dynamic economy in Africa. The models presented outlined the various levels that are relevant for people change approach to African development. The various groups and area for training and development have been specified. Governments as well as private organizations' supports are required urgently to produce needed positive changes. The other important ingredients are values reorientation, disciplined behaviour and leadership by example. All these are components of entrepreneurship education, training and development for

African development in the 21st century which will result in Africa entrepreneurs' global dominance of world economy in the late 21st and throughout 22nd centuries.

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Environmental Factors Influencing Relapse Behavior among Adolescent Opiate Users in Kerman (A Province in Iran)

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Abstract-This study explores the importance of the environmental factors on drug use and its effects on relapse. In this respect, the effects of peer groups and availability of drug are discussed in this research. Environmental factors have played a crucial role in both male adolescents drug use and relapse and could increase the likelihood of their becoming addicted to drugs and relapse (Taylor, Lioyd, & Warheit, 2006). An individual can have a variety of environments such as the family, community, school and friends, within each the risk of addiction and relapse might develop (Genetic science learning center, 2008). Furthermore, the adolescents have an influential need to spend more time with their surrounding environment; i.e. more time with peers and less with their families (Bezuidenhout & Joubert, 2003). Nearly 60% of Iran population is under the 25 and spending more time with friends is a prior preference among this young people. Also the adolescents' tendency toward using drugs is eased and reinforced with their availability since Iran is neighboring Afghanistan, a country of the greatest poppy and natural drugs with an annual production rate of almost 3000 tons (Farjad, 2000). Thus, one can assume that environmental factors play an important role in increasing the possibility of relapse after treatment. Therefore, this study considers two factors: peer groups and availability of drugs. The objective of this study is to examine the effects of environmental factors on relapse behavior among male adolescent opiate users in Kerman. In this research 226 adolescents between the ages of 13 to 20 were selected based on ten rehabilitation centers to answer the face to face interview questionnaire. Results indicated that there were significant relationships between these factors with relapse in adolescents. The study proposes some suggestions in order to prevent relapse after treatment in adolescents.

Keywords-Environmental factors, Opiate addiction, Adolescents, Peer groups, Availability of drugs, Iran

I. INTRODUCTION

Addiction is obviously not a novel phenomenon and has always affected the fate of nations around the world. Drug addiction has threatened societies more than anything else (Deborah, 1995). In fact, drug addiction is a considerable social and personal problem which negatively influences not only the mind and body of the addict but also the health of a society concerning social, economical, political and cultural issues (Farjad, 2000). Drug using

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mostly starts during the second decade of one's life (Azizi, 2004; Farjad, 2000). However, due to various factors, it is also spreading with a fast pace, so that using drugs among adolescents is becoming, discreetly enough, more ordinary in everyday life (Mokri, 2002). According to Mental health Touches (2006), adolescent drug use is nowadays marked as a problem all over the world. Basically this does not raise any surprise since there has been moving statistics, highlighting this alerting social phenomenon. For instance, United Nations (2006) reports that 25 percent of addicts in Asia and eastern Europe are under the age of 20; also in the South Africa 80 percent of burglary and robbery cases had tight bounds to drugs and most of the convicts were between 12 to 17 years old age (Drakenstein Police Service, 2006). In recent decades, using drug has become a fatal social phenomenon in Iran, causing prevalent social, psychological, economic and family disasters. Furthermore, the rise of using drug has led to the quick emergence of infectious diseases, such as (HIV) and Hepatitis (Mokri, 2002). Substance use among adolescents is widespread in Iranian communities, schools, and families (Azizi, 2004). 45 percent of drug addicts in Iran are under the age of 20 (Azizi, 2004). He emphasizes that drug use among Iranian adolescents is increasing, and is bound with a multitude of problems. Azizi asserts that in Iran the main factor causing addiction in people specially the adolescents is originated from environmental problems such as availability of drugs. Geographically Iran is neighboring the greatest poppy and natural drugs country (Afghanistan) which produces about 3000 tons of drugs each year (Mokri, 2002). Afghanistan stands first in the world regarding planting, and smuggling drugs. This country was the main distributor of drugs in the year 2003 (Azizi, 2004). One of the main factors for the widespread use of drugs in Iran is, according to Farjad (2000), its vicinity with the golden crescent producing narcotics, Afghanistan and Pakistan. Kerman is one of the biggest provinces in Iran and is located near the border of Iran and Afghanistan. Since this province is situated in the path of world's drug transit, there is no wonder that drug is easily accessible to people (Ziaaddini, 2005). The most common used substances in Kerman are opium and its residue. Data suggests that the prevalence of substance in Kerman was 22.5% (Iran Drug Control Headquarters, 2008). According to National Institute of Drug Abuse (2006) drug availability, and drug trafficking patterns are the factors that can affect young people begin using drugs. Although drug abuse in adolescent is increasing, the demand for treatment of drug addicted adolescents is also increasing

especially among male adolescents in Kerman. In spite of the attempts that have been made in recovery processes, unfortunately about 2/3 of opiate addicts return to drug in just less than one year (Kaplan, 1997; Saeed, 2000). The reason that affects on drug use can also affect on relapse in adolescents (Annis & Davis, 1997). According to Gorski (2001), 78% of adolescents relapsed after they stopped using drugs for six months. Researchers have proved successful results of many different treatments; however, high relapse rates are still typical across all classes of drug abuse (Gordon, 2003; Hunt, Bamett, & Branch, 1971). Usually the recovery processes are not done completely and just attend to the physical dimension by detoxification neglecting the important factors such as environmental factors. Since after detoxification the addicts return to their surrounding environment and society, cannot expect a perfect quit from them without considering about these factors carefully (Ghorbanhosseini, 1990). In today's schools the variety of drugs and their availability is prevalent (Mokri, 2002). The supply and demand for drug is very high (National Institute on Drug Abuse, 2006). So, adolescents that quitted using drugs will return to environments like school and society where drug is easily available and there exist the risk of returning to drug use or relapse. As mentioned above, availability of drug has an important role to increase the high rate of relapse after detoxification. In addition to availability of drugs, the effects of peer groups seem to have the largest effect on adolescent drug using behavior (Chen, Sheth, Elliott, & Yeager, 2004; Kandel, 1996). The main factor involved in the risk of drug use is having friends who suffer behavioral problems (Brandt & Delport, 2005; Fraser, 2002; Goodwin, 2000). In today's schools, it is very common to use drugs. Peer pressure generally is the reason for their using drugs. If the people in a social group use drugs, they will influence each other directly or indirectly

(Chen, et al., 2004; National Institute on Drug Abuse, 2006). So this study expresses the importance of environmental factors namely, peer groups and availability of drugs as crucial role on relapse behavior among male adolescents in Kerman.

II. METHODOLOGY

This study was a quantitative study. The survey research method, which is the most popular data-gathering technique, is used in this study. To achieve the purpose, data were collected from 226 opiate addicted male adolescents, aged 13-20, who had referred to rehabilitation centers, and had at least once relapse in Kerman. The method of data collection was face to face interview questionnaires. Since the subjects were not in the right condition to provide complete and reliable answers to a questionnaire independently, face to face interview questionnaire could be the most appropriate for the purpose of the present research. Demographic information such as age, education level, and occupation status was collected using a questionnaire of demographic data. The second part includes questions about environmental factors that are related to relapse. Questions pertaining to the environmental factors on relapse behaviour were measured using the Likert scale in the form of "(1) Negligible, (2) Low, (3) Moderate, (4) High, and (5) Very high" with each item in the questionnaire. The reliability coefficients for environmental factors are .75. It took about 20 minutes to complete the questionnaire. Two statistical procedures, descriptive statistics and inferential statistics were used for data analysis. In order to ensure that the data was normally distributed the normality test was calculated for all measures. To describe the research hypothesis, the Pearson Correlations test is applied to appoint the connection between the two variables.

Table1 -Frequencies and percentages of respondent's demographic background

Characteristics	Number (n=226)	Percentage (%)
Age (n=226)		
13-14 years	20	8.8
15-16	39	17.3
17-18	83	36.8
19- 20	84	37.2
Mean=17.5		
Level of Education		
Elementary	28	12.4
Secondary school	79	35
Associated degree	82	36.3
Bachelor	37	16.4
Occupation Status		
Unemployed	138	61.1
Employed	88	38.9
Parental Marital Status		
Live together	133	58.8
Divorced	51	22.6
Widow	18	8
Widower	24	10.6

Duration quit background		
Once	77	34.1
Twice	68	30.1
Third	29	12.8
More than three times	52	23
Income (thousand Tomans)		
< 70000	164	72.7
> 70000	62	27.3

III. RESULTS OF THE STUDY

Data were available for 226 respondent's adolescents. Table 1 shows the frequencies and percentages on respondents' demographic background. According to the results, the age of the adolescents ranged from 13 to 20 years old. Their mean age was 17.5. The Majority of the respondents (37.2%) belong to the age group of 19-20 year-olds of the whole samples. In terms of education, the largest parts of the samples in this study belong to the associated degree that comprised 36.3% of the whole subjects. Also regarding occupation, most of them (61.1%) are unemployed. In addition, the largest part of the samples in this study belongs to the adolescents whose parents live together; i.e. 58.8%. As it is shown in table 1, 34.1% of the samples are adolescents who quitted their addiction once. 72.7% of income or spending money belongs to the lowest price (0-70000 Toman). This means that most of the

respondents were in the low-incomegroup. 35% had quitted due to feeling tired of addiction. Pearson correlations among environmental factors and relapse shows that relapse was correlated with environmental factors (peer groups and availability of drugs). Considering data analysis, it is specified that Pearson Correlations between environmental factors and relapse of respondents is .323 in rank order and with p-value is .0000 in rank order which is less than $\alpha = 0.01$ significance value, table 2 confirmed that there was a significant positive correlations between environmental factors and relapse ($r=.323$, $p<0.01$). A positive relationship in the correlation indicates that there is an increase in the dependent variable with increase in the independent variables. In other words, whenever a person is exposed to potential environment as such (high availability of drugs or peer groups who use drugs), he would be placed in relapse situation again.

Table 2 -Pearson Correlation tests between Environmental factors and Relapse

		Environmental factors	Relapse
Environmental factors	Pearson Correlation	1	.323**
	Sig. (2-tailed)		.000
	n	226	226
Relapse	Pearson Correlation	.323**	1
	Sig. (2-tailed)	.000	
	n	226	226

*Correlation is significant at the 0.01 level (2-tailed).

IV. DISCUSSION

The objective of this study was to examine the relationship between the environmental factors and relapse behaviour among adolescent opiate users in Kerman. Environmental factors have played a crucial role in adolescents drug use and in relapse as well. Factors that are shown in this research were environmental factors like peer group and availability of drugs. As Table 2 shows, a significant moderate positive correlation between environmental factors and relapse ($r=.323$, $p<0.01$), it shows that increase relationship with environmental factors associate with higher relapse. The functions of peer groups in adolescence are a reference to developing norms (Gouws, Kruger, & Burger, 2000). Adolescents need to be accepted. If the family fails to give acceptance to them, adolescents will turn to a place where they can fulfill this need (Bezuidenhout &

Joubert, 2003; Erikson, 1998). Furthermore, the adolescents have an influential need to spend more time with their surrounding environment that is more time with peers and less with their families (Bezuidenhout & Joubert, 2003). Peer groups effectively influence the adolescent's decision to use drugs and return to drugs as well (Gouws, et al., 2000). Peer influences seem to have the major effect on adolescent substance using behavior. Actually, peer drug use has been identified as an important factor that most likely leads to use of drugs (Kandel, 1996). Van Der Westhuizen (2007) indicated that the need for support from friends and harmful effect of peer pressure as factors anticipating relapses after treatment among adolescent drug users. The finding of this research indicates that relationship with addicted friends more causes to relapse in adolescents. This findings supported research done by Gouws et al. (2000) and Mc Whirter et al. (2004) who suggested that peer group

is a significant resource in illustrating the leading factors to relapse behaviour. In addition to affect of peer groups, numerous studies show that drug availability is one of the risk factors that contribute to relapse in adolescents' drug addiction (Brandt & Delport, 2005; Fraser, 2002; Goodwin, 2000; Gordon, 2003). Also, Farjad (2000) agreed with this and stated that availability of drug in society put at risk the drug addicted that are in recovery. Based on these findings, availability of drug in society will mostly lead to relapse in adolescents. This finding supports research done by Fraser (2002), that declared the availability of drug is an important factor that causes relapse and put the adolescents at risk.

These factors could increase the likelihood of their becoming addicted to drugs and effect on relapse (Taylor, et al., 2006). The previous studies of Gouws et al. (2000), Westhuizen (2007), Jenkins (1996) and Swadi (1989) indicated the high rate of relapse among adolescents and the importance of peer group and availability of drugs on relapse. Using a drug in response to the high-risk situation can lead to feelings of failure and guilt, which can predict further use of drugs (National Institute on Drug Abuse, 2006). Iran is in the procedure of developing and growing drug abuse treatment options for opiate and other drug dependent patients. These days community development is becoming more and more popular, powerful, valuable, prevalent and most importantly as a planning style to solve the community problems. Warren (1978) defines the Community development, as a process of helping community people to solve their problems. The goal of community development is to help people improve their social situations (Christenson & Robinson, 1980). Self-help approach is one of the essential approaches in community development. This approach is based on that people can, will and should work together to solve community problems (Littrell & Hobbs, 1989). Self-help approach is becoming more significant as a planning style to solve the community problems and self-help is a community building approach and also it is a style of planning, decision making, and problem solving (Christenson & Robinson, 1980; Littrell & Hobbs, 1989). Self-help comprises two organized features: (1) it is expected to create improvements of peoples' living condition, facilities and services, (2) it stresses that the process by which these improvements are achieved is necessary to the development of a community (Littrell & Hobbs, 1989; Summers, 1986; Wilkinson, 1986). The developed community is both improved and empowered as a result. The self-help perspective highlights that the process is more significant in the long run than the improvements, due to the collaboration that derives from a strong sense of community that can be the means to continuing improvement of community services and quality of life (Littrell & Hobbs, 1989; Summers, 1986; Wilkinson, 1986). Self-help a serious emphasize on education about the problem and its sources. Self-help can exist as an institute, place or an interest group (Littrell & Hobbs, 1989). The person is vulnerable but can improve huge strength in self-help groups (Kindernothilfe, 2002). Berger & Neuhaus (1977) proposed empowerment as a way of improving

individual by means of mediating social institutions. Self-help has become an integral part of treatment for emotional issues, behavior problems, drug use, relapse and also dealing with stressful situations. Many people find that self-help and support groups are an invaluable resource for empowerment and recovery (Focus adolescent service, 2008). Self-help support groups bring together people with common experiences. Participants share experiences, provide understanding and support and help each other find new ways to cope with problems (Younus, 2005). Most drug addiction treatment programs encourage patients to participate in a self-help group during and after formal treatment and also encourage parents who have adolescents with behavior problems like relapse to attend a parenting group for support and guidance (Kindernothilfe, 2002). Self-help groups play a necessary role for the family members to know the addiction, they should be empowered in recovery process and to become involved in treatment (Mental Health Touches, 2006). Self-help groups are effective in supporting the family, and addressing the feelings related to the addiction and the involvement of families in aftercare efforts as necessary to prevent relapses (Goodwin, 2000; Van Der Westhuizen, 2007). A support group can also supply emotional support, practical coping skills and strategies, and empower individual towards personal growth, positive changes, and healing (Focus adolescent service, 2008). Brandt and Delport (2005) indicated that the self-help groups provide addicted adolescents with role models to help them in forming new beliefs regarding drug abuse and also Focus adolescent services (2006) declare that self-help groups learn them to function in the community and to assist them to form healthy relationships. The strength of using the self-help approach in this study lies in its potential to focus on the influence and interaction of self-help group on relapse prevention in male adolescent. Self-help groups can be engaged powerfully in the context of aftercare services supplied in the route of relapse prevention. Self-help approach was included here to explain relapse prevention through self-help group after treatment. Kerman is the biggest province in Iran and is also located near the border of Iran and Afghanistan. This city is situated in the path of world's drug transit, so drug is easily accessible (Mokri, 2002). There exists the risk of returning to drug use or relapse. As mentioned above, environment has an important role to increase the high rate of relapse after detoxification. The results of the study have shown that unfortunately most of the adolescents that give up their addiction in Kerman suffer from environmental problems like peer groups and availability of drugs. These factors gave the researcher some insight into the need for support from friends, the harmful effect of peer pressure and availability of drugs as factors threatening relapses after treatment amongst opiate adolescents in Kerman. The results of this study are consistent with results reported by (Brandt & Delport, 2005; Fraser, 2002; Goodwin, 2000; Gordon, 2003).

V. CONCLUSION AND RECOMMENDATIONS

The general conclusion derived from the afore-mentioned environmental factors is that there are several factors that may lead to relapse. Outcomes of this research indicate environmental factors of "peer groups" and "availability of drugs" as significantly related to relapse in addicted adolescents. Based on the results, the researcher suggests, the following methods to decrease relapse in Kerman. The adolescents need self-help group in order to support them to avoid relapse. In addition, self-help groups play an essential role for the family members to understand the addiction. The opiate addicted adolescents should be helped to manage high risks situations. Also should able to develop assertiveness to deal with peer pressure and to choose the right friendship. Parents should be able in their roles in order to support their adolescents in treatment and also receive information on high risk situation.

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Japan Looted Gold Resources in Northeast China during World War II

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GJHSS Classification – C (FOR)
210203,210204,220207

Abstract-China abounded in gold resources in her northeastern part and for a long time Japan had thirsted and desired for them. Japan had begun to explore the gold resources of China since the Sino-Japanese War in 1894. Since the Russo - Japanese War, it had searched for gold in China more unscrupulously. Furthermore, since 9.18 Incident, Japanese companies such as Manchurian Gold Ming Company had begun to wantonly develop the gold resources in Northeast China and made great profits.

Keywords- Gold in Northeast China, Looted by Japan.

Northeast China is abundant in gold resources. In the early 15th century, placer gold was found and mined in the basin of Songhua River. In the early 19th century, Jilin Province developed the gold resources around Jiapigou gold ore. In the late 19th century, the Qing government set up the Government-run Gold Ore Bureau in Mohe, a place in Heilongjiang province, to give a direct management of the gold mining industry. In the early 20th century, gold resources in the three provinces of Heilongjiang, Jilin and Liaoning of northeast China rank second in the Far East, next only to Russia. In 1914, The Republic of China implemented Mining Ordinance and reduced the mining tax. So the nongovernmental gold mining organizations began to grow increasingly. The government-run, government-supervised and merchant-run, and jointly-run gold mining enterprises got a great development. At that time, the most famous gold mines were Mohe, Qiganhe and Jilalin gold ores in Heilongjiang Province, Jiapigou, Yanhe, and Qiupigou gold ores in Jilin Province, Yumin, and Baoma River gold mines in Fengtian Province, etc. The volume of these gold mines is quite impressive with 1674 tons in 1926, 1337 tons in 1927, 999 tons in 1928, 525 tons in 1929, and 1477 tons in 1930. In short, Before 9.18 Incident, the gold exploration volume of Northeast China accounted for about 55% of all the gold production in China. Northeast China was rich in gold resources, and Japan desired and was thirsty for them for a long time. After Sino-Japanese War in 1894, Japan dispatched many military officers, spies, police, experts and scholars to investigate and explore the gold resources in Liaodong Peninsula and obtain China's economic information. After the Russo-Japanese War, Japan occupied the important ports of Lushun and Dalian, and then gave more detailed surveys of the gold resources in the entire Fengtian Province or even the whole northeast China. A wild tide of searching for gold in China appeared. The Department of Manchurian Railway, set up in 1906, made the most exhaustive and detailed investigation.

It is a state-run organization, a state agency in charge of South Manchuria in the name of Japan and a state capitalist corporate of monopoly plundering economic interest. Since its establishment, it had been concerned about the mineral resources in the northeast China. Thus it set up such departments as Manchuria Railway Investigation Department, Manchuria Railway Geological Survey to launch a detailed investigation of the gold ores from the south of Liaodong Peninsula to the upstream of Songhua River and the alluvial gold Strip of the Heilongjiang River Valley. In 1914, its investigators Kido Mukutarox explored Chaihepu gold ore. In 1915, Haliyochi and Sinava Murata investigated Five-phoenix Building (Wufenglou) gold ore and Haicheng gold ore. From 1927 to 1935, Yahagibe Mao and Kimura Rokuro gave an exploration successively and respectively to such gold ores as Fenshui, Dog Milk, Wangdagou, Jiapigou, Heihe, and Hunchun for many times. In 1932, Manchuria Railway Department spent 600,000 Japanese Yen in organizing the investigation team and setting up training school to educate the investigators, asking them to learn Chinese and grasp the knowledge of investigation. Then the Investigation Team was divided into three groups to give the spot reconnaissance. Each group was made up of more than a hundred people and equipped with a variety of drilling machinery, radio, walkie-talkie, surveyors, medical corpsman and security personnel. From 1936 to 1937, Uchino Toshio and others again explored the Sandaogou placer gold and Neipingquan gold ore. In short, Manchuria Railway Geological Survey gave quite a detailed census to around 900 gold mining places in Northeast China and wrote millions of words investigation report, which was kept as confidential information in the Secret Agency of Japanese kwantung army, Manchuria Railway Investigation Department and other decision-making bodies. According to the statistics of Japanese Manchuria Railway economic Investigation Commission, by the end of 1930, there had been 69 gold ores in Northeast China with 17 in Fengtian Province, 13 in Jilin Province, 39 in Rehe Province, and 126 placer gold ores with 30 in Fengtian Province, 42 in Jilin Province, 50 in Heilongjiang Province, and 4 in Rehe Province (Note 1). In 1941, the book of General Map of Manchuria Mining Area, published by Manchuria Mining Co. Ltd., gave a very comprehensive and systematic introduction to mineral deposits in the provinces of Northeast China. It records in detail the location, quantity and size of the gold ores in Jilin Province, Heihe Province, Sanjiang Province, Dong'an Province and Jiandao Province. The greed and wild ambition of the Japanese aggressors can be distinctly read. In several decades after the Russo-Japanese War, Japan spent a lot of manpower and material resources

in surveying the gold production in Northeast China and deliberately planned to give an exploration. Japan did not have the opportunity until after 9.18 Incident. It could not wait patiently to explore the gold mines in northeast China in an enterprise pattern. Based on the findings, the puppet Manchuria manipulated by the Japanese Imperial Army developed a gold production policy immediately after established. In July, 1932, Takagi Sakichi, a member of Economic Survey Committee of Manchuria Railway Department, published Strategy of Developing Gold Mines in Manchu, which gave plans about the specific steps and methods of exploring the gold ores in Northeast China. Since then the Secret Agency of the Japanese Kwantung Army held special conferences to give a research and formulate "Program of Developing the State-owned Placer Gold and Gold Mines in Manchu" and "Manchu Gold Incentive Plan", "Law of Gold Purchase" and "Law of Gold Export Prohibitions", Japan legalized and theorized its looting China's gold resources in the form of law. Japanese aggressors realized its plundering the gold resources in Northeast China mainly through the way by which the state capital monopolized the gold cause. They maneuvered the puppet Manchu, declared that gold resources belonged to the state, and resorted to forcible monopolization. The Manchuria Gold Mining Co., Ltd. is a good case in point. Manchuria Gold Mining Co., Ltd. was set up in 1934, whose main task was to supervise, organize and manage the gold mining in entire Northeast China. And its jurisdiction included "88 counties and 11 Qi in Jilin and Heilongjiang Provinces with the land area of a total of 87 million square kilometers, 1.3 times of Japanese territory" (Guan, 2006, pp.600-605). According to KMT government, "Manchuria Railway Gold Mining Corporation concentrated on and dealt with the placer gold deposit of Heilongjiang, Xing'an, and Jilin Provinces. It had the capital of 12,000,000 yen funded by the puppet state, the Manchuria Railway Company and the Dongtuo Company. There had been a provision that the gold mining right should not be transferred to the folk world. However, since the company was new and got privileges, it won a reliable credit of access to mining industry." (Note 2) These words indicate that the Gold Mining Company was financed with 5 million yen from Manchu government, 5 million yen from Manchuria Railway Company and 2 million from Japanese Dongtuo Company. Japan interpreted it as joint project between Japan and Manchu, or "semi-official and semi-folk program". The company provided that the state-owned mining rights within the puppet Manchu, which stands for the government, that is, the official part, should be transferred to the agency represented by Manchuria Railway Company and Japanese Dongtuo Company, the representatives of private enterprises. The first director of Manchuria Gold Mining Company was Zhang Yanqing, a minister of the puppet Manchu Industry Department. Hideo Kusama was the deputy director. Its headquarters was in Changchun, with three branches in Heihe, Jiamusi and Yanji, which respectively managed the gold mining in the jurisdiction of their own. After the establishment of the Manchuria Gold

Mining Corporation, it began to explore and manage the gold mining in 76% area of Manchu. In particular, in order to speed up the plunder of the gold resources in Northeast China, Japan employed the gold dredger, the most advanced equipment, which had never been used even in Japan, to mine the gold. It was as efficient as 6000 men in the labor. Furthermore, the number of the gold dredger employed by the company had been gradually increased. There were once 30 gold mining dredgers working at more than ten gold ores at the same time. According to Japanese statistics, "in the most prosperous period, there were 15 gold ores in the direct charge of the Mining Corporation, more than 20 plants contracted with about 20,000 gold mining workers" (Note 3) In 1936, National Fengtian Gold Refinery was established by Manchuria Gold Mining Corporation. It could handle 110,000 tons of ore annually including 70,000 tons of gold ore and had income of "541242 yen in 1934, 3660848 yen in 1935 to, 10024136 yen in 1936, 21111197 yen in 1937." (Note 3) Apart from the direct operation of gold mining, the corporation had also taken an indirect way to rent those mines unable to take into account to make money. "By the end of 1937, they had handled 1163 lease and contract matters, and established 128 new mines." (Guan, 2006, pp.600-605). At the same time, Japan also maneuvered the puppet Manchu Central Bank and passed its gold law, requiring that all gold producers must sell the gold to Manchu Central Bank in three months. Free trading of gold among private businessmen and the export of gold were prohibited. And the smuggling of gold was especially strictly forbidden. With this law, Japan bought a total of 14,781 kilograms of gold in Northeast China from 1933 to 1938. Gold from the corporation was completely given or sold to the Central Bank of the puppet Manchu as the gold reserves of Japanese yen and puppet Manchurian currency, which created a very convenient condition for Japan to set up the colonial financial system in Northeast China. Meanwhile, the huge gold reserves became the important source of foreign exchange for the Japanese Imperial Army to purchase and produce the munitions and equipments and met the capital requirement for Japan to expand the war of aggression. In 1937, Manchuria Railway Company transferred its investment in Manchuria Gold Mining Corporation to Manchuria Heavy Industry Development Co., Ltd. All of its shares and Dongtuo Company were purchased by Manchu in 1938. Thus, Manchuria Gold Mining Corporation owned the total amount of social capital of 60,000,000 yen and achieved the complete control of gold resources in Northeast China. In 1942, the corporation totally had 80 million yen. In 1943, because of the war, Manchuria Gold Mining Corporation dissolved after a 10-year operation and all its industries were transferred to Manchuria Mining Industry Development Co., Ltd., which continued to operate gold mining industry. In addition, there were some other companies such as East Manchu Mining Company, Majima Mining Company, Zhaode Mining Company and Haicheng Mining Company were engaged in gold mining in northeast China and all made great profits. In addition, Japan also gradually annexed many private

businesses to encroach the gold mines in China by the way of loan. The famous Jiapigou gold mine in Jilin was known as a rich gold mining cluster. Since Qing Dynasty, it was operated by "Han family". The family was also in charge of the forest, land and mines in the neighborhood. And the administration, judicial cases, military affairs and taxation were in the hand of the chief of the Han family. In the early Chinese Republican Period, Han family declined and borrowed a sum of money from some Japanese, which unexpectedly became an excuse for Japan to threaten the Han family for gold mining rights. In 1933, Han had to sign a contract with Japan and transferred Jiapigou gold mine to the Japanese Tatung Sokusan Co., Ltd. In October 1934, Japanese garrison marched into and stationed in Jiapigou and occupied the gold mine. It took various means, such as exploiting the workers and speeding up exploration to produce gold at a large scale. According to statistics, "Japanese imperialists had looted a total of 2327337 kilograms of gold from Jiapigou mine from 1940 to 1945." (Yu, 2007, pp.31-34). Not until 1945 when Japanese aggressors surrendered did the mine ceased the gold production. Japan's plundering the gold resources in Northeast China under the banner of cooperation and in the name of development is a great humiliation that Chinese people should never forget, and a lesson of history we Chinese should learn from.

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Notes

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Correlates and Health on Consequences of Indoor Air Pollution among Urban Households in Ilorin, Nigeria

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GJHSS Classification – B (FOR)
111717,120504,120507

Abstract: Given their consequences on human health, indoor air pollution generated through domestic energy consumption is more important than outdoor pollution in the third world. The understanding however, of the intricate link between energy and health lags behind that of the linkages between water or waste management and health. The consequences of energy consumption have not been reflected in health care priorities in most countries. Apart from studies that examine the relationship between *poverty* and energy, studies are also scanty in the identification of both area and structural characteristics of urban population in relation to energy use. This study identifies the nature, types and sources of energy used by households for domestic purposes in Ilorin, Nigeria. The specific tasks of the study include establishing a spatial pattern of the variation in the types and quantity of energy used by households; so as to obtain a gradient of the characteristics of energy consumption in cities of developing countries. This is expected to lead to a corresponding variation in the health consequences resulting from the use of such energy types. These tasks will enhance a clearer understanding of the link between energy and city wide environmental health. Multiple Regression analysis and other relevant statistics would be used to determine the relative contributions of household characteristics to the pattern of energy use. The sources of data are primary and secondary.

Keywords: IAP, Household, third World cities, Health Problems.

I. INTRODUCTION

In modern times and societies, there is a complex relationship between the environment, broadly defined, and human health. This relationship is also assuming transboundary dynamism when viewed against the backdrop of social, political and economic circumstances that affect both the environment and health simultaneously. Thus the health and well being of humans cannot be rightly separated from the total environment. Indeed, the greatest challenge to human health today is a mirage of ecosystem related factors that span from the household scenario and dovetail in a complex interplay to a global dimension. Each of these factors interacts to produce an impact on human health. It is still an enormous research challenge to identify the magnitude of individual influences on the general human health and wellbeing. This challenge is also the major reason for the contemplation of such perspectives asecosystem approach to human health (*ecohealth*). Threats

to human health are constantly being generated from two categories of human environment interaction. Firstly, lack of development; referring to man's inability to cope with natural resources or restricted access to environmental resources. Secondly, threats are also being produced from unsustainable development which leads to ecosystem degradation (WRI, 1998). In this category is the harvesting, processing, distribution and use of fuels and other sources of energy. These activities have been shown to possess major environmental implications (Rosenzweig and Foster, 2003, Hosier and Kipondya, 1993). Studies are however scanty in the exploration of the factors that may produce a typical urban energy use and the consequences this may possess for human health. This forms the basis of the present study. While contending with inherent multiple coincidence the effects of energy consumption may produce for the households, as well as the combination of the effects of other households energy consumption patterns, the paper attempts to characterize the factors that may be confounded with a typical energy use scenario in a third world city and explore the pollution scenario produced from the variation in the type of energy used by urban households.

The objectives of the study include

1. to identify the type of energy used by sampled households in Ilorin city. In the city, energy types commonly used include gas, electricity, kerosene, firewood, charcoal, sawdust, grasses and animal dung. The interest in the study is to identify the households using clean energy types from those using energy types in the unclean category. Only households using gas and electricity to prepare domestic food are in the clean category while households using all other energy types in the above list or related ones are classified as using unclean energy. These are so qualified because of the possibility of incomplete combustion from the unclean energy and their ability to produce dangerous gases that may be injurious to human health.
2. Identify the spatial patterns that this exhibits; and examine the house household demographic and socio-economic factors that may influence the choice of energy used by households for domestic cooking, lighting, etc
3. Finally, the paper attempts to establish relationship between the use of unclean energy category and

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some selected self reported pollution related health conditions in sampled households

II. ENERGY AND HUMAN/ ECOSYSTEM HEALTH: A FRAMEWORK AND JUSTIFICATION

The energy sub-sector is a strategic component of an overall assessment of the functioning of the ecosystem. This functioning also possesses a transboundary influences on the ability of ecosystems to provide support to the human community including shelter, food, clothing and capacity to assimilate and recycle waste, clean air as well as water. Through the activities of man, more than half of the land surface have been modified and the effects of this modification accounts for more than 20% of the atmospheric carbon dioxide concentration. Humans have also utilized about 50% of the accessible surface fresh water and are responsible for about 60% of all Nitrogen Fixation (Rapport, 1998). The totality of the impacts of these modifications possesses great danger to the continued functioning of the natural life support systems and thus human health is put '*on line*' each time the activities of humans threaten the health and sustainability of the ecosystem. Human activities generate and liberate a significant proportion of biologically active elements and compounds into the atmosphere, surface waters and soil at rates far beyond natural flows of these substances. Within this plethora of modifications, indoor air pollution from household activities is a major human activity that may (and do) produce negative consequences for human and ecosystem health. A critical study of this activity is therefore necessary because it is perhaps the most important insult into the general ecosystem given its routine and accidental release of pollutants. Researches in the area of pollution and human health have emphasized the developed world perspective to pollution. This perspective is characterized by the exploration of the emissions into the earth's surface of injurious substances from the activities of urbanization, transportation and industrialization (IGES, 2004, Dhakal and Norman, 2003). In these parts of the world energy consumption transition has shifted from the concern for the influence of micro level consumption behavior such as household energy use and the question of clean or otherwise of energy at these levels. The emphasis in the developed world is for a more global concern for the impact of macro level energy use and its implication for outdoor air pollution. For this reason, the understanding of the linkages between energy and health lags behind that of the linkages between such other contexts as waste/water management and health (WorldBank, 2004). Hence, health has not been systematically integrated into energy projects in most third world countries. For instance, Nigeria contains about 13 percent of the Sub-Saharan African vehicles but has not included pollution reduction into its National Environmental Action Plan (NEAP), although it is discussing the use of unleaded fuel over the medium term (WorldBank, 2004).

As humans burn solid fuels for warmth, security, cooking and domestic purposes, the epidemiology of respiratory infections which possesses a cluster around poorly

ventilated homes of developing world has been shown to cause serious health problems leading to the death of up to 1.6 million people annually using the medium of indoor air pollution (WHO,2002). Women and children are most affected because women do most of the cooking and inhale more smoke, while children are always in-door with their mothers near the *fireplace*. Evidence is now overwhelming that Carbon dioxide emission from the energy sector accounts for more than 50 percent of the human contribution to greenhouse effect. Despite this, the strategic and environmental consequences of the patterns of energy consumption were virtually neglected or spoken around for a long time. Thus, overtime, a series of 'conflicts' have been generated between energy on one hand, human health and future of our planet on the other. Energy is now being acknowledged to be central to the generation and sustenance of these conflicts (Energy 21, 1997). The household scale is important because it is the oldest 'human energy technology' and home cooking fire persists as the most prevalent fuel using technology in the world accounting for more than 50 percent of energy demand in countries with per capital incomes of less than one thousand United states' Dollars (Holdrin and Smith, 2000). The highest energy demand is also at the household level for home cooking. The energy ladder is an appropriate framework for the understanding the spectrum of energy consumption and their relative contribution to pollution within the household. According to the ladder, poor households use more of the unclean energy types ranging from wood, dung, grass or crop residues and less of clean energy types like electricity and liquefied petroleum gas (LPG). There are different purposes for using energy in different households. The major activity requiring energy use includes cooking water heating, lighting and space heating. It is important to note that different 'carriers' of energy can be used for each of these activities. Firewood, charcoal, dung, crop residues, kerosene, electricity or LPG are some of the energy carriers that can be used for cooking while kerosene and electricity are used for lighting. These carriers form what is commonly referred to as energy ladder for the activity. The rungs of the ladder are income sensitive because the choice of the energy adopter for an activity by a given household is a function of the percentage of the household income that can be expended on energy for that activity. Hence, each rung of an energy ladder represent only the dominant but not the sole energy used by households in the particular income group. The rung is not the sole energy type because given irregularities in supply or prices, households may adopt other fuels as backup in place of the proffered (see Reddy and Reddy, 1994). For most households, it is the income and price of energy options that restrict the choice. Wood, dung and other unclean biomass fuels occupy the lowest rung in the ladder for cooking while charcoal and coal as well as kerosene represents higher steps up the ladder; the highest rung is occupied by electricity and LPG. It must be noted that along the energy ladder, just as energy options have different qualities, they also have different prices as well as emission characteristics. Hence, the lower the option in the ladder, the higher the carbon dioxide emission due to

incomplete burning. Negative health consequences also decrease as we move up in the ladder rung, although prices of fuel also increase correspondingly. Given the poverty landscape in a typical African city, we hypothesize in this study that energy ladder is consistent with the gradient of poverty with the city centre occupying the lowest rung while the highest rung is occupied by the dwellers of the periphery. The spatial dimension as hypothesized here has received very little attention over time.

III. LITERATURE REVIEW

A major challenge in the energy-environment and health research is that health has generally not played an important role in policies outside the health sector except where a high level of understanding about the relationship with health already exists. Hence, energy-health nexus had been poorly explored. From the wreckage of the little research, it is possible to discern the following understanding. As a rule, pollution increases the cheaper the fuel (Smith and Liu, 1994); traditional non-commercial fuels like wood, charcoal and dung which form about 80 percent of the fuel source for people and household heating in SSA are more hazardous to human health (Listordi and Doumani, 2004). This is because such fuels, depending on the type and length of exposure, are direct sources of contact between humans and particulates oxides of sulphur and nitrogen, carbon monoxide, fluoride, aldehydes and other hydrocarbons. Moreover researches have shown that whereas cooking is a relatively minor end use of energy in industrialized economies, constituting less than 20 percent, it is the largest end-use of energy in the SSA accounting for more than 75 percent of such uses. Thus the environmental health burden as a percentage of the total disease burden is highest in SSA. This burden is about 27 percent compared to 18 percent in Asia and less than 5 percent in industrialized nations (Lvovsky, 2001, Smith, 1999). Poverty is also highest in SSA. Among all environmental risks to human health, indoor air pollution is well recognized as a traditional hazard which is also related to poverty. The IAP related DALYs in 1990 reached about 5.5 percent for SSA (WorldBank, 2000, Weil, et al, 1990). According to Bradley 1992, the literature on nutrition, water and sanitation, diarrhea diseases, children and the technical aspects of tropical diseases has been extensive in developing countries while the understanding of energy-health linkages was as advanced as it was for others; even when it is estimated that solid fuel use accounts for 4.7% of deaths in developing countries and 4.3% of disability adjusted life years. Solid fuel comes third after malnutrition (14.9%) of deaths, 18% of DALYs) and water supply, hygiene and sanitation (6.7% of deaths and 7.6% of DALYs) (see Smith and Mehta, 2000). Another area of focus in public health investigation of the risk from environment and energy in particular is the high risk groups-children, those that are exposed to risks due to occupation, the elderly and the women. In each case, each of these groups are said to suffer singly or jointly, the health impact of energy related to disease and conditions of air pollution, injuries, stress and other conditions as well as vector related

diseases. It is important to note that the literature on gender and energy often gives passing references to health which rarely examine health as a priority and are therefore not followed by any rigorous health related analysis. A comparison of the literature in the areas of IAP and outdoor air pollution also shows that research in the former is still in its infancy (Listordi and Doumani, 2004). The implication of this includes the fact that researches have focused more on the developed countries whose major preoccupation is the pollution that are generated from industrial activities rather than the activities at the micro level like the household. It is the household energy use in the developing countries that has the highest contribution to IAP. The Global Forum for Health Research (1999) gave an overriding reason for this development namely that "much general information about environmental health is based on conditions in developing countries reflecting that the driving forces in research, development and technology largely emanates from the industrialized world. About 90% of the US\$56Billion invested in health research and development by the public and private health sectors goes to research concerning only 10% of the world population (Committee on Environmental Health, 1999). Hence in the developing countries, particularly of the SSA, four major areas in the energy sector are generally described as the uncharted by Listordi and Doumani, 2004. These include

1. the quantification of the full burden of diseases from dependence on biomass fuels. In this area, health damages are underestimated focusing on the ARI (Acute Respiratory Infections)
2. Valuation of the full economic burden of the disease and possible benefits of energy projects are also poorly developed;
3. Lack of appropriate shift in paradigm of policy response; and
4. A better understanding of socio-economic underpinning of behavioral change. Here very little have been done to tap community efforts at self-help in reducing harmful exposures to smoke or improving household economic decision making.

Added to the above, is the lack focus on the spatial manifestation of the energy ladder. The ladder is an economic framework whose rungs are developed based on overall changes in well being. According to the ladder, "as people climb the energy ladder; as incomes increase, households buy cleaner fuels, spend less time gathering fuels, and are subjected to lower level of harmful emissions" (Listordi and Doumani, 2004, Smith and Liu, 1994). The concern in this study is to demonstrate the spatial manifestations of the energy ladder at a micro level of the city. Thus, the challenges in this paper include attempting answers to the following questions; what factors determine the type of energy used in developing country cities and what are the health consequences of the households' energy decisions. Findings from the study are expected to assist in the appropriate targeting of areas for interventions and that leading to required paradigm shift in policy response as suggested by Listordi and Doumani, 2004.

IV. THE SETTING AND THE METHODOLOGY

The setting for this study is Ilorin metropolis, the capital city of Kwara state in Nigeria. The city is located on latitude $8^{\circ}30'N$ and long. $4^{\circ}35'E$ marking simultaneously the cultural and ecological divide between the south-western forest and Yoruba dormant Zone and the Northern grassland and Hausa / Fulani zone of the country. The vegetation is in most parts guinea savanna interspersed by trees of different species. The climate is tropical wet and dry characterized by a distinct wet and dry season. The mean annual temperature is often above $26^{\circ}C$ with at least five hours of daily sunshine. The mean annual rainfall is about 125mm. within the city, it is possible to delimit, even if roughly, residential groupings determined by both housing density and their crowding index (Olorunfemi, 1982). The changing economic base of the city is also a general framework through which the growth of the city can be explained. Hence, its role as provincial headquarter since the colonial period, state capital since 1967, and the economic effects of the oil boom era of 1970s brought with it physical development projects. These projects include the army barracks; Adewole Housing Estates, the international airport, and the Niger River Development Authority among others are developments that attracted physical growth for the city towards in its different directions and at different times and rates. The physical growth generated through these momentums also translates into significant changes on the population of the city. The population of the city was a few 36,000 people in 1911, 208,000 in 1963 and about one million in 2000. This shows a growth rate of 2.8 percent per annum. Although the population of the city might have changed significantly in size, the residential characteristics of its people have remained geographically stable. In other words, a geographically discernible pattern exists of the structure of people living in different parts of the city. This determined often by the levels of income and ethnic affiliation of the people. Hence the natives who possess their '*family houses*' in the interior areas inhabit the inner city predominantly. The dwelling units here are multi-family houses containing several rooms in traditionally designed edifices. It is important to note that the population here possesses higher tendencies for residential mobility as levels income or education improves. Outside the inner city is the CBD, which is interspersed by native houses. Hence, commercial nerve centres developed outside the city centre and comprises of early migrants and early movers from the city centre. The third is the urban frontier comprised of the early development efforts like the Adewole, Kulende and Oloje low Cost housing Estates. Finally, there is the suburbia and the urban fringe, which includes old villages that have benefited from '*urban invasion*'. The city as described above is divided into twenty traditional wards for administrative purposes and adopted in this study for analytical convenience.

The methodology of data collection in this study employs a structured questionnaire to elicit information from 500 households sampled from the twenty traditional wards. The twenty-five households were sampled using a stratification

of the homes from the geometric centre of each ward. From such centres, one out of every ten households were sampled and the heads of such households were prime targets. In the absence of the head, or due to any inability on his/her part, one person among the household members who was so assigned by other members was interviewed. The questions were drawn to reveal the socioeconomic circumstances of households as well as how this affects their choice of domestic energy consumption. The questionnaires also include a recollection of common household illness and diseases including the first major steps when such illnesses occur. Both descriptive and inferential statistics were used to analyze the responses from this survey.

V. ANALYTICAL PROCEDURE

1) *The survey and the Variables*

The responses from the survey were analyzed based on the twenty wards. In all, the responses were grouped into three broad categories containing separate variables. These include household and household head characteristics, residential quality and pollution related health problems. The variable under each of these groups are as listed and defined below.

2) *Household and Household Head Characteristics*

- Gender of Household heads was taken as the number of female headed households
- Education of Household head: taken as number of households with illiterate heads. Here, literacy is defined as possession of a minimum of secondary education.
- Household size: this was calculated as the total number of household members reported by all the sampled households in each ward divided by the total sample (25) for the ward.
- Occupation of Household Head: this is taken as the total number of household heads that indicated a non-urban occupation as their major occupation, e.g farming.

3) *Residential Quality*

- Connection to the central electricity measured as the total number of households not connected to the central electricity per ward. Note that this variable was relegated because the survey showed that only one household was not connected to the central electricity.
- Number of households using unclean energy for domestic cooking. This is defined as the total number of households using firewood, charcoal, saw dust for cooking domestic food.
- Number of houses without separate kitchen. In this category are houses without cooking places located within the house; or houses with one kitchen shared by several households. This increases the tendency for households to identify other convenient points, even if not appropriate for cooking.

- Number of households cooking indoor including total number of households cooking in their sleeping rooms or at a common passage in multi-family houses. This is to determine the number of households whose cooking habit increases the tendency for indoor air pollution; and hence its resultant health effects. Cooking in other places like front of the house or in a cooking place located outside the house may possess some negative health implications but are not counted here as possessing significant impacts for IAP.
- Instrument for cooking household food is taken here to include smoke generating instruments like kerosene stove, *fireplace*, either mud or iron fabricated that accept firewood, saw dust, grass and animal dung for making fire and coal pot using charcoal. The basic feature of these instruments is their incomplete combustion, generation, and emission of carbon dioxide and carbon monoxide and other hydrocarbons with dare consequences for households and neighbourhoods.

4) Pollution related health problems

- It is recognized it is difficult to obtain a definite of IAP from such qualitative sources as household survey. However it is possible to query some household health parameters that may be symptomatic of IAP in households. In this study, seven of such household parameters were identified. These are the total number of household member per ward that
 - Cough first thing in the morning (CUFMOR)
 - Cough during the day or night(CUFEVEN)
 - Bring out spittle when coughing(SPITLICUF)
 - Cough up to at least three months in one year (CUFTHREE)
 - Bring out blood tinted spittle (BLODSPIT)
 - Report chest illness in one year(CHESTILL)
 - Possessing watery or blood shot eyes.(WATEREYE)

The notations in parentheses are relevant to model 2 below. The presence of these indicators in different combinations is suggestive of the presence of IAP when other factors act in coincidence to determine the magnitude and intensity. Multiple regression models were used to determine the impact of household characteristics on the use of unclean energy; and the consequences of energy use on the reported proxies of IAP.

VI. THE MODELS

Model 1: The first model examines the correlates of energy use among households in Ilorin metropolis. The model is expressed as

$$EU = f(HHS) \dots \dots \dots (1)$$

Where

EU= Energy Use

HHS= household heads' Structure proxied by headship characteristics

Thus,

$$HHS = f(OccHH, HHsize, EDHH, FHH) \dots \dots \dots (2)$$

Substituting equation (2) into (1)

$$EU = f(OccHH, HHsize, EDHH, FHH) \dots \dots \dots (3)$$

Where

OccHH= occupation of Household Head proxied by number of households in non-urban Occupation.

HHSize= Household Size

EDHH= Level of Education of household Head

FHH= Proportion of Households Headed by Female

Based on Eq.3 above, we established a multiple linear relationship of the form

$$EU = \beta_0 + \beta_1 OccHH + \beta_2 HHsize + \beta_3 EDHH + \beta_4 FHH + e \dots (4)$$

Where

β_0 = the intercept

β_1 - β_4 = estimation parameters defined earlier

e= Residual error term.

Model 2:

The second model examines the impact of the use of unclean energy on the reported pollution related health problems.

The model is of the form

$$EU = f(IAP) \dots \dots \dots 5$$

Where

IAP= Indoor Air pollution proxied by seven selected variables as indicated above; with

IAP

$$= f(CUFMOR, CUFEVEN, SPITLICUF, CUFTHREE, BLODSPIT, CHESTILL, WATEREYE) \dots (6)$$

Thus,

EU=

$$f(CUFMOR, CUFEVEN, SPITLICUF, CUFTHREE, BLODSPIT, CHESTILL, WATEREYE) \dots (7)$$

The regression equation

$$\alpha_0 + \alpha_1 CUFMOR + \alpha_2 CUFEVEN + \alpha_3 SPITLICUF + \alpha_4 CUFTHREE + \alpha_5 BLODSPIT + \alpha_6 CHESTILL + \alpha_7 WATEREYE + e \dots \dots \dots (8)$$

where

α_0 = intercept

α_1 - α_7 = estimation parameters

e= residual error term

In the estimation of the models above, two evaluation criteria were used. These include the setting of a-priori expectations for the behaviour of each variable within the context of the independent variables. These expectations were based on the signs and magnitude of coefficients of the variables of interest. The second criterion is the use of

statistical characteristics of the variables other wise referred to as the first order Least Square (OLS) test which consists of R^2 , F-statistics and t-test. These parameters test the overall significant of the regression analyses and the significant of each independent variable. Thus, in the two models, the behaviour of the independent variables is that $\text{Bi-}\beta_4 > 0$ and $\alpha_1 - \alpha_7 > 0$. In other words, we expect positive values for our estimation parameters in both models.

VII. RESULTS

Explanatory Variables	Models		
	1	t-values	2
Intercept)	7.05 (1.45)		
OccHH	0.52 (1.53)		
HHsize EDHH	0.44 (0.88)		
FHH	0.31 (1.08)		
UFMOR	-0.61 (-1.90)		
CUFEVENSPITC		0.53 (0.89)	
UF		0.34 (0.70)	
CUFTHREE		-0.80 (-0.8)	
BLODSPT		1.45 (1.46)	
CHESTILL		-0.11 (-0.12)	
WATEREYE		0.51 (0.89)	
R^2		0.33 (1.12)	
F	0.48	0.45	
No. of Cases	3.50	1.71	
	500	500	

The results of the multiple regression analyses from the two models described above is as shown in table 1 below:

Table1: Multiple Regression Analysis Of The Correlates And Health Consequences Of Urban Energy Use In Ilorin Nigeria.,

VIII. CORRELATES OF ENERGY USE AMONG HOUSEHOLDS IN ILORIN (MODEL 1)

As shown in table 1, the model gives an R^2 of 48%, which indicates that 48 % variation in the dependent variable (energy use) is explained by selected explanatory variables while the remaining 52% may be explained by other variables not included in the model. At 5% level of significant, the F-statistics shows that the model is useful in the determining if any significant relationship exists between use of energy use and selected characteristics of heads of households; the calculated F (3.50) is greater than the table value of F (1.64). The coefficient and the associated t-values (in parentheses) of the components of the household characteristics used in the analysis indicate that occupation of household heads, household size and education of household heads fulfilled the a-priori expectations whereas gender of household heads is shown to no positive relationship with the use of unclean energy. This

is suggesting that the belief that households that are headed by females are likely to use more of unclean energy is set aside by the result of this analysis. This is suspected to be because female-headed households are more often smaller than those headed by males. Thus, when household sizes are smaller, the energy demand for domestic use is usually low and hence heads are able to afford cleaner energy carriers for cooking. This is corroborated by the finding that household size possesses positive relationship (44%) with the use of unclean energy. Household heads occupation is also related to the level of education of household heads. The two also possesses positive relationship with the use of unclean energy. In essence, the tendency to engage in non-urban occupation is likely to increase the lower level of education; hence, it follows that illiterate heads of households engage more in non-urban occupation like farming and use more of unclean energy. The source indicated by households in the survey also shows that 39% of households obtained their unclean energy types from farms.

IX. HEALTH CONSEQUENCES OF INDOOR AIR POLLUTION (Model 2):

Model two shows that the selected proxies of indoor air pollution give 45% of the explanation. The F-statistics also shows that our model is useful in determining the relative contribution of energy use to indoor air pollution. This is because F-calculated is greater than the table value of F at 5% level of significance ($F_{\text{cal.}} 1.89 > F_{\text{tab.}} 1.64$). Among the seven proxies of IAP, two were shown to possess no positive relationship with unclean energy use. These include bringing out of spittle when respondents cough and respondents noticing bloodstain in their spittle. These two variables are both related to having productive cough that leads to spittle containing bloodstain. The remaining five variables also fulfilled our expected behaviour as they were shown to be related to use of unclean energy at varying magnitudes. It is important to note that the incidence of cough either in the morning or evening is related directly to use of unclean energy; importantly the findings include the fact that such cough is persistent and may last for up to three months or more. The results include chest illness and watery or blood shot eyes due to the combined effects of smoke inhaled and persistent cough. The implications of these findings are discussed in the next section of this paper.

X. DISCUSSION AND CONCLUSION:

This study examines the nature and magnitude of explanation on use of energy use that could be attributed to household characteristics on the, on one hand, and the implications of this for household health in cities. The study implies that the household scale is important in the scenario of IAP and the resultant health consequences. It also shows that the use of unclean energy among urban households is confounded with health related problems of IAP. Public health in developing countries stands to benefit immensely from the realization that the more important health problems come from indoor exposures to biomass fuel where energy can play a major role when unclean energy technologies are

used. This exposes a number of research and policy challenges for developing countries. First, the links between and among poverty, household characteristics, biomass fuel and environmental health risks is poorly understood. Thus, research attention should be focused on the exploration of these links. For instance, effort must be made to quantify the full burden of respiratory diseases from IAP and of other health effects from biomass dependence. Aside this, we must also understand the socio-economic factors that drives behavioral change particularly among the poor and conservative urban dwellers. This change is determined in part by the knowledge of risk available to households about energy use and IAP. Currently, studies are scanty that explore the promotion of behavioral changes. To reverse this trend, there must be a shift in the on-going policy and research paradigms in the third world. In other words, before the widespread campaign against unwholesome water sources and filthy environment, water and sanitation problems seemed intractable. Behavioral change on water and sanitation in terms of hygiene education had led to significant reduction in the level of ignorant and consequently in diarrhea deaths and diseases. Part of the campaign includes that diarrheas was not an automatic part of childhood and that mothers could prevent their children getting sick and dying through them. A similar policy attention is required in the area of energy and IAP. There must appropriate risk communication particularly to women and advice on how to protect their children from pollution generated by the activities of their own cooking. When people are aware of the risks involved in their activity, they are likely to make informed decisions and choices. The current state of such awareness is quite low in developing countries. In separate surveys, Parikh and Laxim (2000) in India, and Benneh, et al (1993) in Ghana reported that households ranked pollution from smoke in kitchens as fourth environmental concern, which goes to corroborate the current state of carefree on the part of the prime victims-women. In conclusion, measures that reduce exposure to smoke like presoaking of beans and building fires in sheltered areas away from homes should be adopted. Governments of developing countries must make efforts to reduce the prices of energy to the levels affordable to the poor. This cannot be done except governments realize and appreciate the strategic position of the energy sector in the generation of IAP and health problems. **Policy Implications:** It has been shown that structural characteristics of households are important determinants of use of unclean energy. Moreover, that these unclean energy carriers posses far reaching implications for IAP and human health particularly in the third world. Public health would therefore benefit immensely from an adequate knowledge of the social and spatial characteristics of households since it is the micro-level energy use that is more important in IAP. Effort is therefore required in clearly obtaining an inventory of household cooking habits, the factors that determine these and their spatial variation within cities. This done, appropriate targeting of population and households will be possible for intervention programmes. To generate negative

health consequences, the location of household cooking spot is a very important attribute. In most houses especially in the third world inner cities, there are no separate kitchen and houses are usually multi-family dwelling units. Indeed, where there are what can be called kitchens, they are located at the extreme end of long house; in some cases, house occupants are forced to travel several metre from their rooms to get to the common kitchen. Hence in most cases, families prepare their food in front of their room using parts of a common passage in multi-family dwelling units. The smoke generated from such cooking habit by several households in one housing unit can be enormous depending on the instrument for cooking and the duration of the activity. An important factor is the prices and availability of clean energy carriers. Gas and electricity have been adjudged the cleanest energy technologies whereas the prices of gas and kerosene have increased more than ten folds since 1999 in Nigeria. The levels of poverty of people have also soared since then. These taken together and considering the strategic nature of energy for cooking, households are forced to adopt the unclean carriers of energy for cooking. In the same vein, electricity supply to most Nigerian cities had declined tremendously with many parts having less than twelve hours of electricity in one week. For many households, electricity is indeed not a consideration for cooking domestic foods. **Finally,** use of clean energy is a major issue in the realization of the Millennium Development Goals (MDGs) to which developing countries have subscribed. It is recommended that for countries to reduce maternal and child mortality, TB prevalence and increase environmental sustainability, urban energy purity must be emphasized.

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e-Waste and Its Health Impacts

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Abstract: The e-waste generated locally in the NCR and imported from other places even from overseas, had assumed such an enormous volume that the Delhi Government has plan to dispose off it in Haridwar, Uttar Pradesh. This is the result of realization of health and environmental hazards associated with this waste which has lead to this decision. The e-waste has various toxic and carcinogenic gases, and heavy metals, which have grievous effects on the health of workers involved in the activity of recycling it unsafely and also populace of the locality. Further, unscientific disposal of its junk after recycling may contaminate groundwater. The problem has motivated the researcher to investigate the health impacts of workers and others involved in the recycling process of e-waste in two junkyards in Delhi. The result of the study are very startling as more than 75 per cent persons involved in this activity suffer from one or the other disease which can directly be attributed to the result of unsafe recycling of e-waste.

Keywords: E-waste, health impacts, toxic, carcinogenic, heavy metals, recycling.

I. INTRODUCTION

E-waste is a collective name to all electronic devices which have been expired of their useful life period like discarded computers, computer peripherals, mobile phones, televisions, and others. E-waste has increased the total waste volume and after dismantling, it releases various toxic and carcinogenic gases and metals which are posing a threat to human health and also contaminate the environment. It is not only the locally generated waste but also added by the e-waste coming from other parts of the country and overseas in order to be dumped after recycling. The huge import of e-waste which is coming as charity to the developing countries like India, the question is where to dump this burden and how to manage this waste which has become a serious environmental threat nowadays. It is because recycling a PC in USA costs \$20 where as in India it just costs \$2. The total e-waste from all electrical and electronic devices is estimated to be 1, 46,180 tones/year of which 66,805 tons per year (45.70 per cent) is certified by electronic waste (Computers, TV's and mobile phones). Mumbai is the leading generator of e-waste and tops with 11,017 tones/year followed by Delhi, Bangalore, Chennai, and Kolkata which produces 9730, 4648, 4132 and 4025 tones/year respectively (Survey: International Resources Group South Asia). The basic problem related to e-waste is that the dismantling and recycling yards (for gaining usable parts and precious metals from the discarded e-items) are very few and most of these activities are carried out by the workers in an unsafe manner. However, such studies are lacking in India. Geography is conspicuous by the absences of such research as adopting its holistic approach, it may contribute significantly for the benefit of the mankind. And the process is very dangerous and insecure as the workers even do not

have gloves or masks and are exposed to injuries by metals and glasses, acids and have to inhale poisonous, toxic and carcinogenic gases. In this manner the life and health of these workers is highly endangered. The next problem is related to the disposal of dismantled material which may contain traces of harmful gases and other toxic substances like heavy metals as lead, cadmium, mercury, etc. which are leached into ground water through soil and has thus potential to pollute the air, water, and soil of the area where they are disposed off. The question is how to dispose off this junk in sedimentary strata or upstream areas of Haridwar which may pollute the downstream areas through surface runoff and result in the contamination of ground water of the immediate surrounding areas due to leaching of residual harmful gases and metals present in this junk. If this practice of dumping e-waste on a particular site for long period may pollute ground water to the extent it renders unusable or may jeopardize the health of people drawing water from shallow aquifers through wells and hand pumps. In this case of upstream disposal as planned in the case of Haridwar, it may contaminate downstream areas. There is no paucity of scientific research on the e-waste management. Researchers are analyzing the impacts of e-waste and are finding the possible solutions to lessen the problem. In India, the biggest source of e-waste is through import. Studies done by Toxic link (NGO working on e-waste in India) suggested that Bangalore city alone generates 30, 000 obsolete PC's every year. Jain (2003) of International Resources Group South Asia, has said that e-waste generation is going to reach 2 million units by 2010 by domestic market supply. United Nations Environmental Programme (UNEP, 2005) noted that 20-50 million tones of electrical and electronic equipments waste is generated worldwide every year and could bring serious risks to human health and the environment. China alone discarded 4 million PC's per year around 20 million PC's became obsolete in 1994 which reach to 100 million units in 2004. The USA alone discards 48.5 million Computers every year.

II. STUDY AREA

The National Capital Region is the second largest metropolis with a population with a population of 2.2 million and spread an area of 33578 sq. km. The total population of NCR is 3, 37, 90, 180 in 2001. The region includes union territory of Delhi (1,483 sq. kms) with a population 1, 37, 82,976, parts of Haryana (13,413 sq.kms.) with population equal to 7801786, Uttar Pradesh (10,853 sq. kms.) with population as 9214466 and Rajasthan (4,493 sq.kms.) with a population of 2990862. In Haryana the District of Gurgaon comprising the Tehsils of Gurgaon, Nuh, Pataudi and Ferozpur-Jhirka. District of Faridabad comprising the Tehsils of Ballabgarh, Palwal and Hathin.

The Rohtak district comprising of Rohtak, Jhajjar, Bahadurgarh, Meham and Kosli. Sonepat district consists Tehsils of Sonepat Ganaur and Gohana. the Panipat tehsil of District of Karnal and Rewari Tehsil of District of Mohindergarh. The state of U.P. Consist of District Bulandshahr (comprising Tehsils of Anupshahr, Bulandshahr, Khurja and Sikanderabad), Meerut (Tehsils of Meerut, Bagpat, Mawana and Sardhana) and District Ghaziabad comprising the Tehsils of Ghaziabad, Hapur, Dadri, and Garmukleshwar. And in Rajasthan state the Tehsils of Atwar district, namely Behroor, Mandawar, Kishangarh, Tijara, Alwar and Ramgarh are included in the NCR.

III. OBJECTIVES

- 1) To have a general observation of the recycling yards.
- 2) To compute the total amount of e-waste annually in the NCR.
- 3) To examine the techniques of recycling at the recycling yards.
- 4) To find out the health conditions of workers dealing with this waste.

IV. METHODOLOGY

For the purpose of investigating the problems associated with this activity a pilot survey of two recycling yards of NCR at Turkemangate and Seelampur has been carried out. Questioners were prepared and filled after asking the workers about the ways of recycling and dismantling, the kinds of metals derived, their health conditions, and duration of involvement in this activity. On the basis of stratified random sampling of E-devices in use, their age of expiry and disposal mode have been collected in the NCR and thus an estimate has been made about the generation of e-waste in the study area

V. PRODUCTION OF E-WASTE IN NCR

The problem become seriously increasing in the National Capital Region (NCR). The Information and Technology enabled services (ITES) are expanding their wings at a faster rate in and around the NCR. In 2006 their about 42 lakhs PCs were sold, 2075547 became obsolete and 3596 tones of computer waste was generated in the NCR. There are about 25,000 workers dealing with e-waste which are involved at various levels and process about 10,000- 20,000 tones of e-waste every year. Basu 2006.

However, the greed of junk dealers and need to earn some money by the poor have caused a stream flow e-waste in the NCR which itself produces a large quantity of it. Dismantling and recycling is virtually carried by carried out in an unorganized sector in the region. Traces of harmful gases and toxic substances like heavy metals have been found in ground water and soil samples and have thus contaminated the whole environment in the study area. Further, the hazardous gases emitting during recycling also pollute the air. Informal Recycling in NCR takes place in

Mandoli, Krishna Nagar, Dharmpur, Silampur and Shastri Park. (Toxic Link).On the basis of stratified random survey, data on number of e-devices in use, their expired age and disposal mode have been collected. The strata being economic and socio cultural establishments as industries, business and commercial establishments, schools, colleges, universities, medical institutions, governmental and non-governmental organizations from a few amounting to 0.01 per cent have randomly selected. Similarly, dealers in electronic goods mentioned earlier have randomly been selected from major commercial areas of the towns and cities in the NCR. Their proportion being almost to 2 per cent of all such dealers in the NCR. The user establishments have been asked about number of these items used therein, the rate of replacement and future expansion. They were also questioned about junk dealers whom they sell or give their defunct e-devices. People dealing with the import of this waste in the NCR have also been interviewed about the volume and places of origin of this waste and also to whom they generally sell this junk for dismantling and recycling. Although the data extracted from these persons may not be very authentic but give a good insight into the magnitude of the problem. The data on number of local production of e-waste taking key elements as T.V. personal computer and mobile phones into consideration in 1991 and 2001 is given in the following table.

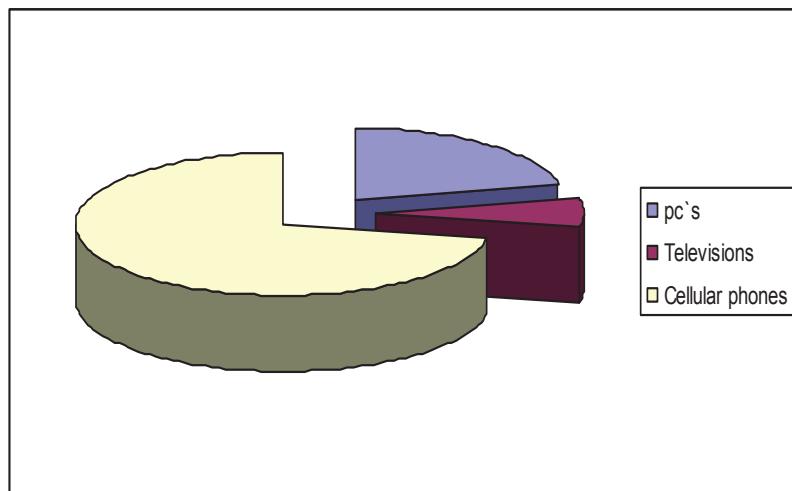
Table 1.1

E-devices	Obsolete rate	Average life time
PC's	5-7 years	10-12 years
TVs	8-10 years	10-15 years
Cell phones	4 years	5-7 years

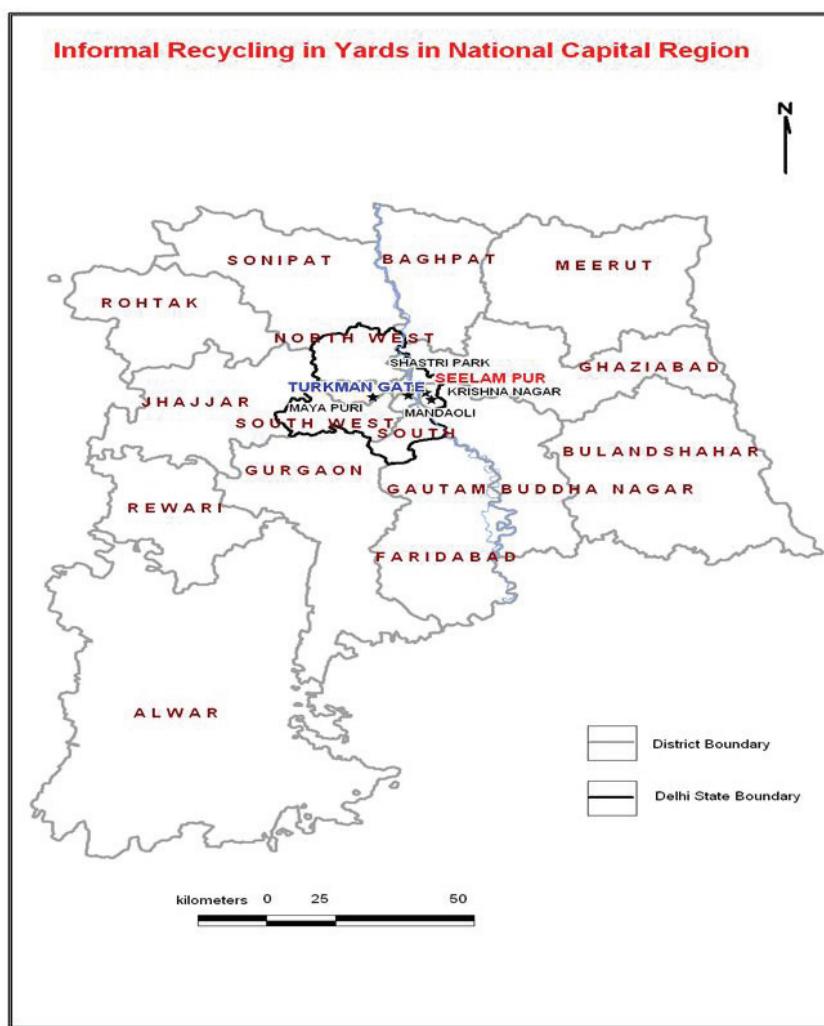
Table 1.2

Key electronic-devices	E-waste generated	
	1991	2001
Personal Computers	30 lakh	54 lakh
Televisions	11 lakh	17 lakh
Cellular phones	75 lakh	180 lakh

KEY ELEMENTS IN 2001 IN THE NCR



Informal Recycling in Yards in National Capital Region

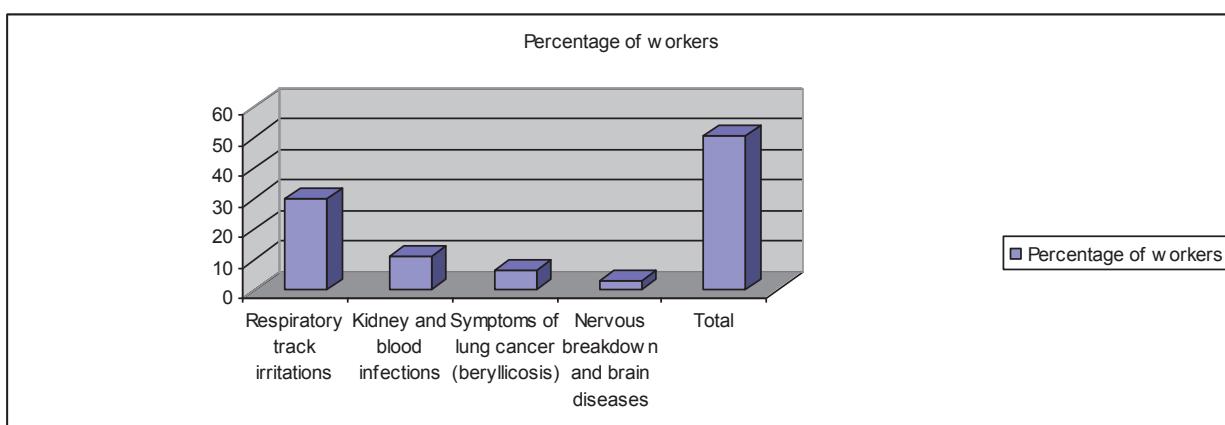


VI. HEALTH CONDITIONS OF WORKERS AT RECYCLING YARDS

For the purpose of investigating the problems associated with this activity a pilot survey of two recycling yards at Turkemangate and Seelampur in Delhi has been carried out. The total number of workers enumerated to be 63 workers including men women and children. All of them found to work without any safety as the techniques of recycling are very undeveloped or pathetic. The owner of the junk yards did not provide even gloves and appropriate tool to carry out the work. In the case of workers working in this industry for last five years, their disease and ill history was recalled. In some cases there may be lapse of recall, but in the case of number of large number of workers, physicians prescriptions and hospital records were cross verified and their present health problems have been diagnosed with the help of a qualified lady physician Dr. Santosh specialized in pollution related diseases. These people have been asked about their health problems during last five years. As a whole, of the total surveyed people (63), 57 or 90 per cent have been found with injuries, burns and skin diseases on their hands, face and legs. The results of this pilot survey related to health conditions of workers involved in this activity are presented in the following table.

Diseases and Symptoms	Number of workers affected	Percentage of workers
Respiratory track irritations	19	30.2
Kidney and blood infections	7	11.1
Symptoms of lung cancer (berylliosis)	4	6.3
Nervous breakdown and brain diseases	2	3.2
Total	32	50.8

Source: Compiled by the author



VII. CONCLUSION

The large quantities have been generated in the National Capital Region has created many problems related to human health and environment. Thus there is urgent need for proper management of this waste and efficient ways to recycle and suitable places of dumping so that it may not contaminate the underground water and soil. Therefore, there is an urgent need to make people aware of the hazards created by it so that toxic effects of e-waste can be avoided.

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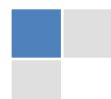
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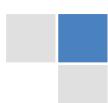
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Techniques for writing a good quality Applied Science Research Paper:

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Approach:



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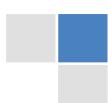
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<i>References</i>	Complete and correct format, well organized	Beside the point, Incomplete	Wrong format and structuring





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