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Nwaobi, Godwin

Quantitative Economic Research Bureau, Nigeria

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SOCIAL SECURITY MECHANISMS: THEORIES, DESIGN AND PRACTICE

GODWIN CHUKWUDUM NWAOBI
PROFESSOR OF ECONOMICS/RESEARCH DIRECTOR

gcnwaobi@quanterb.org
info@quanterb.org
+234-8035925021

www.quanterb.org
QUANTITATIVE ECONOMIC RESEARCH BUREAU
P.O.BOX 7173
ABA, ABIA STATE
NIGERIA, WEST AFRICA
ABSTRACT

Living through hunger and physical hardship from infancy to premature old age; living through economic shifts that close factories and strip currency of its value in an instant; living through social turmoil, political upheaval, and war; through it all, poor men and women in communities around the world keep coming back to their deep longing for a better future for their children. And despite an age of unprecedented global prosperity and the existence of a worldwide network of poverty-reduction institutions, poverty persists and is intensifying among certain groups and in certain regions around the world. Again, while the 2008 financial crisis is global in nature, it is likely to have heterogeneous welfare impacts within the developing world, with some countries and some people more vulnerable than others. It also threatens to have lasting impacts for some of those affected, notably through the nutrition and schooling of children in poor families. These features point to the need for a differentiated social policy response, aiming to provide rapid income support to those in most need, while preserving the key physical and human assets of poor people and their communities. This paper therefore argued that attempts should be made in developing countries to establish institutions and financing mechanisms to assure permanent measures to insure against normal life-cycle contingencies. And for those countries considering alternative social protection measures, the choice should depend on the nature of contingencies experienced and on their administrative and financing capacities. Perhaps, prayer to Almighty God remains the key solution given the spiritual dimension of the social problem under consideration (and since righteousness exalts a nation but sin is a reproach to any nation of the world).

KEY WORDS: social security, world economy, Africa, social protection, pension, social insurance, pension, social insurance, policy reform, unemployment benefits, irrigation, transfers, governance, participation, donors, aids, poverty, inequality, welfare, development, models, framework, mechanism, devil, God, angels, darkness, heaven, hell, poor people

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1.0 INTRODUCTION

There are about two point eight billion poverty experts, the poor themselves. And yet, the development discourse about poverty has been dominated by the perspectives and expertise of those who are not poor (professionals, politicians and agency officials). Thus, there is
need to reverse this imbalance by focusing directly on the perspectives and expertise of poor people. From poor people’s perspectives, ill-being or bad quality of life is much more than just material poverty. It has multiple, interlocking dimensions and the dimensions combine to create and sustain powerlessness, is lack of freedom of choice and action. Each dimension can cause or compound the others and not all apply all the time or in every case, but many apply much of the time for those caught in multiple deprivations, escape is a struggle and experience is that of bondage, of Slavery, of begging, tied like bundles of straw. Again, it may be observed that the psychological experience of multiple deprivations is intense and painful.

Consequently, about ten interlocking dimensions of powerlessness and ill-being emerge from peoples experience: livelihoods and assets are precarious, seasonal and inadequate; place of the poor are isolated, risky, in serviced and stigmatized; body is hungry, exhausted, sick and poor in appearance; gender relations are troubles and unequal; social relations are discriminating and isolating; security is lacking in the sense of both protection and peace of mind; behaviors of those more powerful are marked by disregard and abuse; institutions are disempowering and excluding; organizations of the poor are weak and disconnected; capabilities are weak because of the lack of information, education, skills and confidence.

Indeed, poverty is pain and poor people suffer physical pain that comes with too little food and long hours of work; emotional pain stemming from the daily humiliations of dependency and lack of power; and the moral pain from being forced to make choice (such as whether to use limited funds to save the life of an ill family member or to use those same funds to feed their children). Living through hunger and physical hardship from infancy to premature old age; living through economic shift that close factories and strip currency of its value in an instant; living through social turmoil, political upheaval and war; through it all, poor men and women in communities around the word keep coming back to their deep longing for a better future for their children. Whatever happens, they say, let the children be alright. But despite an age of unprecedented global prosperity and the existence of the worldwide network of poverty-reduction institutions, poverty persists and is intensifying among certain groups and in certain regions around world (Narayan el al, 2000).

However, social protection policies typically have been thought of as a form of redistribution. Yet more recent theoretical and empirical work also highlights a crucial opportunity-enhancing role for social protection. Again, pervasive financial market failures in developing countries lead to widespread uninsured risks and credit constraints. Unequal capacity to manage risk means unequal opportunities to engage in risky but high return activities. Here, Families may deal with crisis in ways that narrow future opportunities,
such as the distress sales and forgoing health care, schooling, or food intake. By helping poor people manage risks, social protection programs expand their opportunities and enhance overall efficiency. Even purely redistributive programs can have important opportunity enhancing impacts. These schemes are pure transfers targeted to the elderly, geared strictly to avoiding distribution, as well as having important welfare impacts. Essentially, they improve the recipient’s access to credit and lead to higher instruments in the household’s physical capital and human capital of its children (and elderly). Social protection systems also help societies embark on reforms that would have insurmountable equity and political costs without them. Reforms on efficiency and the government’s fiscal position and the government’s fiscal position may not be politically feasible unless policies are in place to compensate losers. In otherwords, permanent social protection can help reduce the need for special compensatory programs for each and every reform. Consequently, there is a dynamic efficiency rationale for other important efficiency arguments against transfer policies. Poorly designed programs can have large negative consequences on efficiency. Taxes or contributions have distortion costs, especially when they are not directly linked to benefits while transfers can dampen work incentives, reduce private savings and weaken informal insurance mechanisms.

Generally, social protection encompasses two classes of interventions. The contributory schemes (social insurance) is the type in which the primary focus is in managing risks through smoothing an individual’s income overtime and in the face of difficulties. Often, these program pool risks across large numbers of individuals and include old age and disability pensions as well as health and unemployment insurance. On the other hand, the general tax funded transfers (social assistance) is the type in which the focus is on redistribution from the better off to the poor and these include a variety of cash or in-kind programs targeted at the poor. Again, these are complemented by labour market regulations such as firing and hiring of workers. Unfortunately, almost all countries spend more on social insurance than social assistance programs. Yet, there is no consensus on the appropriate balance of interventions even where there is sufficient resources and capacity to implement any combination desired. Thus, many countries face constraints on the choice of systems because of limited fiscal and administrative capacity. In otherwords, many countries lack the administrative sophistication and levels of urbanization and formal employment needed to administer a social insurance scheme; and high social security taxes have segmented the labour market and encouraged informality.

Consequently, what are the options for those countries that are far from able to achieve universal social insurance systems? Indeed, there is a large range of social assistance programs, each different in groups served, administrative requirements, complementary benefits, incentive effects and political factors as shown in table 1.1 (Word Bank 2006).

| S/N | GROUP SERVED | SOCIAL INSURANCE | SAFETY NET [SOCIAL | COMPLEMENTARY |
|-----|--------------|------------------|--------------------|

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Here, a judicious blending of these programs can usually result in a social protection system that covers the appropriate groups with feasible instruments. Basically, the mix of programs selected and their specific characteristics will depend on context, that is, the risks faced, the level of urbanization, the age structure, informal sector size, administrative capacity, complementary social policies and socio-cultural (political) factors. Broad provisioning of these services is also good for development and poverty reduction through impacts on innovation, productivity and social cohesion. But there are big challenges to equitable provisioning; getting the relevant issues on the policy agenda, fighting political capture of institutions so that they do not only serve the powerful and the influential, and managing efficiency equity trade offs, especially in the short term. These are good prospects for incremental change through advocacy to point out long-run benefits even when there are short-run costs. Perhaps, this action is through sound program and tax design to minimize efficiency costs and build accountability structures as well as political coalitions that can change holdups. Therefore, the thrust of this paper is to examine equity in the acquisition of human capacities through a unique factor such as social protection, which is at the care of a strategy to equalize the opportunities for people to lead productive (fulfilling) lives. The rest of this paper is divided into seven sections. Section two looks at the Word Economic Order while the Word Spiritual Order is the theme of section three. Section four presents the social security themes and literature. The social security models are analyzed in section five while section six develops the Social Security Framework Policy.
Reform Process is suggested in section seven while section eight concludes the paper.

2.0 WORLD ECONOMIC ORDER

Indeed, Development in human society is a many-sided process. At the level of the individual, it implies increased skill and capacity, greater freedom, creativity, self-discipline, responsibility and material well-being. However, what is indisputable is that the achievement of any of those aspects of personal development is very much tied in with the state of the society as a whole (Rodney, 1972). Thus, after British had begun to move ahead of the rest of Europe in the 18th Century,
and subsequently in the 19th Century via 20th Century; the main preoccupation is with the differences in wealth between Europe/North America and Africa/Asia/Latin America. In compares with the first, the second group can be said to be backward or underdeveloped.

Traditional African Economies are usually called subsistence economies. Often, small village farmed, hunted, fished and looked after themselves independently with little reference to the rest of the continent. Yet at the same time, the vast majority of the African Communities fulfilled a few of their needs by trade. Such trade was always a function of production. However, the first significant thing about the internationalization of trade in the 15th century was that Europeans took the initiative and went to other parts of the world. They used the superiority of their ships and canon to gain control of all the world’s waterways, starting with the Western Mediterranean and the Atlantic Coast of North Africa. On one hand, Europe exported to Africa goods which were already being produced and used in Europe itself. On the other hand, Europeans were anxious to acquire gold in Africa because there was pressing need for gold coin within the growing capitalist money economy. Since gold was limited to very small areas of Africa as far as Europeans were then aware, the principal export was human beings. Once trade in slaves had been started in any given part of Africa, it soon became clear that it was beyond the capacity of any single African state to change the situation.

Thus, throughout the 17th and 18th centuries, and for most of the 19th century, the exploitation of Africa and African labour continued to be a source for the accumulation of capital to be re-invested in Western Europe. In otherwords, the African contribution to European capitalist growth extended over such vital sectors as shipping, insurance, the formation of companies, capitalist agriculture, technology and the manufacture of machinery. However, Europe transferred its capitalist institutions more completely to North America than to any other part of the globe; and established a powerful form of capitalism after eliminating the indigenous inhabitants and exploiting the labour of millions of Africans. Like other parts of the New Word, the American colonies of the British crown were used as means of accumulating primary capital for re-export to Europe. But the Northern colonies also had direct access to benefits from slavery in the American south and in the British and French West Indies. As in Europe, the profits made from slavery and slave trade went firstly to commercial ports and industrial areas, which meant mainly the North – Eastern Sea – board district known as New England and New York State. In fact, the number of persons engaged in the slave trade and the amount of capital embarked in it exceed our powers of calculation. Thus, the city of New York has been until of late (1862) the principal port of the world for this infamous commerce; with cities of Portland and Boston.
being only second to her in that distribution. Slavery was useful for early accumulation of capital, but was too rigid for industrial development. Slaves had to be given crude non-breakable tools which held back the capitalist development of agriculture and industry. That explains the fact that the Northern portions of the United States of America gained far more industrial benefits from slavery than the South which actually had slave institutions on its soil; and ultimately the stage was reached during the Americas Civil War when the Northern capitalists fought to end slavery within the boundaries of the United States of America, so that the country as a whole could advance to a higher level of capitalism. On the other hand, Europe maintained slavery in places that were physically remote from European society; and therefore inside Europe itself, capitalist relations were elaborated without being adversely affected by slavery in the Americas. However, even in Europe there came a moment when the leading capitalist states found that the trade in slaves and the use of slave labour in the Americas was no longer in the interest of their further development. Consequently, early in the 19th century, Britain made this decision and to be followed by France.

Many things remain uncertain about the slave trade and its consequences for Africa, but the general picture of destructiveness was clear and that destructiveness can be shown to be the logical consequence of the manner of recruitment of captives in Africa. One of the uncertainties concerns the basic question of how many Africans were imported and this has been an object of speculation with estimates ranging from a few millions to over one hundred million. The massive loss to the African labour force was made more critical because it was composed of able-bodied young men and young women. Thus, African economic activity was affected both directly and indirectly by population loss. Subsequently, the colonial Africa fell within that part of the international capitalist economy from which surplus was drawn to feed the metropolitan sector. As noted, exploitation of land and labour is essential for human social advance, but only on the assumption that the product is made available within the area where the exploitation takes place. In otherwords, colonialism was not merely a system of exploitation, but one whose essential purpose was to repatriate the profit to the so-called mother country. And from an African view-point, that amounted to consistent expatriation of surplus produced by African Labour out of African resources. That is, it meant the development of Europe as part of the same dialectical process in which Africa was underdeveloped. And over the decades of colonialism, colonial possessions served the capitalism as a safety-value in time of crisis. The first major occasion when this was displayed was during the great economic depression of 1929–34. During this period, forced labour was increased in Africa and the price
paid to Africans for their crops were reduced. Again, workers were paid less and imported goods cost a great deal more. And that was a time when workers in the metropolitan countries also suffered terribly; but the colonialists rid the best they can to transfer the burdens of the depression away from Europe and on to the colonies.

However, the great economic depression did not affect the Soviet Union, where socialism caused great development; but the slump spread from one end of the capitalist system to the other. It was argued as a product of the irrationality of the capitalist mode of production. That is, the search for profits caused production to run ahead of people's capacity to purchase, and ultimately both production and employment had to be drastically reduced. Consequently, the economic depression was not a situation from which Britain could benefit at the expense of United States of America. They were all drowning, and that was why they benefits of the colonies saved not only the colonizing powers but all capitalist nations. Faced with the evidence of the European exploitation of Africa, many writers would concede at least partially that colonialism was a system which functioned well in the interests of the metropolis. However, they would then urge that another issue to be resolved is how much Europeans did for Africans, and that it is necessary to draw up a balance sheet of colonialism. On that balance sheet, they placed both the credits and the debits, and quite after conclude that the good outweighed the bad. In other words, there was exploitation and oppression, but, on the other hand, colonial governments did much for the benefit of Africans by developing Africa. However, this conclusion can easily be challenged. Consequently, after much agitation, there was emergence of African independence (with limited progress).

Indeed, the new century opened with an unprecedented declaration of solidarity and determination to rid the world of poverty. In the year 2000, the United Nation Millennium Declaration, adopted at the largest-ever gathering of head of state, committed countries (rich and poor) to doing all they can to eradicate poverty, promote human dignity and equality and achieve peace, democracy and environmental sustainability. Here, world leaders promised to work together to meet concrete targets for advancing development and reducing poverty. Emanating from the millennium declaration, the millennium development goals bind countries to do more in the attack on inadequate incomes, widespread hunger, gender inequality, environmental determination and lack of education, health care and clean water (United Nations, 2003). They also include actions to reduce debt and increase aid, trade and technology transfers in poor countries. The March 2002 Monterrey Consensus (reaffirmed in the September 2002 Johannesburg Declaration on sustainable development and the Johannesburg plan of implementation) provides a
framework for this partnership between rich and poor countries. In fact, these issues are all crucial for sustainable human development and they continue to deserve priority attention in policy making, basically, they include economic reforms to establish macroeconomic stability; strong institutions and government enforce rule of law and control corruption; social justice and involving people in decisions that affects them; and structural constraints that impede economic growth (and human development).

In other words, the goals will succeed only if they mean something to the billions of individuals for whom they are intended. The goals must become a national reality, embraced by their main Stake Holders (people and governments). They are a set of Bach marks for assessing progress and for enabling poor people to hold political leaders accountable. They help people fight for the kinds of policies and actions that will create decent jobs, improve access to schools and root out corruption. They are also commitments by national leaders, who must be held accountable for their fulfillment by their electorates. That is, today's world has greater resources and know how than ever before to tackle the challenges of infections disease, low productivity, lack of clean energy and transport and lack of basic services such as clean water, sanitation, schools and health care. Unfortunately, the issue is how best to apply these resources and know how to benefit the poorest people. To achieve sustainable growth, countries must attain basic thresholds in several key areas: governance, health, education, infrastructure and access to markets. If a country fails below the threshold in any of these areas, it can fall into a “poverty trap”. Most of the top and high priority countries are trying to attain these basic thresholds; and yet they face deep-seated structural obstacles that will be difficult to overcome on their own.

Recently, the world economy is entering a major downturn, gives the most dangerous shock in mature financial markets since the 1930s. The mess caused by fast and loose mortgage lending in the United States has now blown into a perilous global crisis of confidence that has revealed both the scale and the limitations of globalization. Finance is built on trust and suddenly the trust has been replaced by fear. That is fear among depositors over the safety of their money; fear among banks world-wide about lending to one another; and now fear among politicians, central bankers and regulators that they don’t have adequate tools to fix the problem. At the root of the troubles are the “toxic assets (the highly leveraged securities mainly linked to United States Mortgages) that banks around the world still have on their books. In its latest estimate, IMF calculated that losses on these rows are actually worthless securities could amount to $1.4 trillion. So far, banks have written off less than half that concern about who is still holding dud paper has gummed up credit markets, with banks refusing
to lend to one another for fear that the borrowers may default or may have themselves lent to other banks that could default. That in turn is causing solvency problems for some financial institutions that rely on short term borrowing to fund their operations. Indeed, the consequences are great. Some economists are already outlining the downward spiral that they predict will follow. Here, Banks will cut back on their lending to households and business. Mortgages and car loans will; become harder to get; and that in turn will stifle consumer spending and crimp investment in companies, leading to production cuts and job losses. Judging by previous arises, it can take about eighteen months to twenty months. Four months for a financial squeeze to spread to the rest of the economy which means that the year 2009 is shaping up to be a bleak year everywhere.

In its latest economic outlook, the IMF predicted that the United States economy will grow just 0.1% next year (being its worst showing in eighteen years). Europe is expected to fare no better, and China, India and other emerging economies that have been critical drivers of global economic growth over the past five years are also expected to slow markedly, that means nobody will be able to take over for the United States as the locomotive of the world economy, and everyone will drag down everyone else. Overall, the IMF expects world economic growth to slow to three percent in 2009, from five percent in 2007 and it warns. In other worlds, the world economy is now entering a major downturn in the face of the most dangerous shock in mature financial markets since the 1930s. Therefore, it is expected that the United States will go into a shallow recession, unfortunately followed by a shallow recovery. Beyond the immediate economic impact, there are already signs that this meltdown will have longer-term repercussions. Thus, policy makers everywhere will have to go back to the drawing board to figure out a more effective system of financial crisis management. In fact, finance has become one of the most international of industries, with major banks spreading their countries curses numerous countries and continents. Yet, regulation still takes place on a national or even more local basis. When banks run into trouble, it is unclear who is supposed to help or how; and the favored solution so far (direct government intervention) is not an option everywhere. Thus, uncertainties about crisis management efforts are contributing significantly to the market instability.

Again, it was a fitting end to what has been a remarkably bubbly period for London. Over the past decade and a half, ever since its last protracted downturn, the British capital has transformed itself into Europe’s indispensable financial center; and has become a magnet for people, jobs and investment from around the world. Specifically, the big United States banks made London their international hub and the major continental European banks moved much of their trading and
investment banking operations there. About seventy percent of international bonds and almost half the total volume of international equities are traded in London, more ever than New York, its only remaining rival as the world’s financial capital. But now the world is in grip of a perilous market crunch, the boom is over and tough times loom. The U. K’s FTSE-100 stock index has nosedived in recent days and is down about 35% in the past years. Three famous British banks have already imploded and the city has been through enough slumps to know what to expect next: layoffs, shrinking bonuses for those lucky enough to keep their jobs, and a new frugality over expenses. This will inevitably have repercussions on housing prices, but also on other types of consumers spending that turned along with the city. The coming downturn is already shaping up as different as and tougher than some previous ones. That is because the financial crisis is taking place at the same time as a real estate downturn, a conjunction that is unusual. In the past, one has often followed the other, but it is rare for them to happen simultaneously. And the problems are being exacerbated by an explosion of household debt in Britain over the past decade, which now leaves people especially vulnerable. Beyond by rising property prices, households ratcheted up their borrowing to a massive 173% of disposable income whereas the United States household debt amount to 139% of income.

Fortunately, the increasing dependence on financial services has brought in fabulous wealth in the past fifteen years, but it has also left the British capital at the mercy of the ups and downs of the money men. As finance has scared as a proportion of the local economy, it has eclipsed other sectors. London was once a major center for industry but manufacturing now accounts for just six percent of the city’s output (half the proportion of two decades ago). However, the bigger question is whether the risk-taking, hard-charging, high-living times will give way to a quieter, duller less profitable and far more regulated era (not so much a golden age as a golden cage). The debt fueled days are almost certainly history and households across the capital will have to tighten their belts and live with a lot less leverage. In other worlds, the banking crisis has already made it considerably harder for house buyer to get mortgages of any sort, let alone ones requiring only a tiny down payment.

If the United States upcoming global summit on how to fix the world’s broken financial system (as proposed by several European presidents and prime ministers) is to be a serious effort, the leaders should begin laying the ground work for establishing a global central bank. The idea of such an institution would have been a political nonstarter before the current debacle. In fact, the crisis of the last several decades (the Latin American debt meltdown in the early 1980s; the stock market crash in 1987; the savings and loan collapse of the
early 1990s; the Asian financial blowup of the late 1990s; the internet stock collapse earlier in 2000 decade) did not involve the extent of global linkages among financial institutions or the mind boggling consequences of complex securities that we are witnessing today. In none of this previous blowups did the global credit system shut down, as it did in the recent past weeks of stock, 2008 in none did governments in both the industrialized and developing world intervene so massively; coming close to nationalizing the entire global banking system. And in none was it so clear that there is no effective governing authority at the center of global finance. However, there was a time when the United States Federal Reserve played this role, as the prime financial institution of the world’s most powerful economy, overseeing the one global currency. But with the growth of capital markets, the rise of currencies like the Euro and the emergence of powerful players such as China the shift of wealth to Asia and the Persian Gulf and the deep-seated problems in the American economy itself, the fed no longer have the capability to lead single-handedly.

Consequently, unlike the World Bank and international monetary fund, a global central bank is needed to oversee the rudderless global financial system. It could be the lead regulator of big global financial institutions (such as Citigroup or Deutshe Bank) whose activities spill across borders. It could monitor risks that are building in the global market and create an early warning system that alerts banks and national regulators that trouble is coming, and pushes them to modify their policies. It could also act as a bankruptcy court when big global banks that operate in multiple countries need to be restructured. It could oversee not just the big commercial banks but also the “alternative” financial system that has developed in recent years, consisting of hedge funds, private equity groups and sovereign wealth funds (all of which are now substantially unregulated). The proposed institution could have influence over key exchange rates and might lead a new monetary conference to realign the dollar and the yen. In other worlds, it is expected to deal with the great financial imbalances that hang like a sword over the world economy. Rather than competing with national central banks, its rule will be complementary. Indeed, national central bank has the frontline responsibility for sound regulatory policies and monetary stability in their respective countries. But it would have heavy influence over then when it comes to policies that are compatible with global growth and financial stability. Specifically, it could work with key industries to better coordinate national stimulus programs when the world enters a recession (as currently experienced) so that the cumulative impact of the various national efforts do not so dramatically overshoot that they plant the seed for a crisis of global inflation. Truly, a global central bank worth its value would have intervened in not just commercial banks but also
loosely-regulated investment banks, because all such institutions would have been obligated to adhere to the global banks’ regulatory standards or else be blacklisted in global markets. Had it existed, it would have acted without the air of panic that has been exhibited by national central banks and finance ministries in this meltdown. Ideally, it would have gathered its governing board well in advance of a financial blowup to execute a coordinated rescue and global stimulus plan.

Since the era of globalization or even before that, economies of countries in the world have been interlinked. To the third world economies, the effects of the quake may not be long for it to be felt. It is obvious that with economies of African States highly dependent on exportation of raw materials to the advanced economies of the West, way little strain on the economic fortunes of the west will automatically rob off negatively on the economies of these developing nations. For example, with the United States accounting for slightly over forty two percent of Nigeria’s total crude oil exports, any economic trouble in the United States will impact negatively on the local economy. So far, the fear and speculations in the banking sector of the world alone set oil prices crashing below $100. Stocks in the Asian markets were tumbling down and Russia had to stop trading on the floor of its stock exchange to monitor the global market. And with Nigeria entire foreign reserve of about $65 billion held in JP Morgan of the United States, it is of paramount interest to Nigeria that nothing happens to the USA economy. Although it has been argued that because of the cash based economy that Nigeria is known for, it may be insulated from the current global economic squeeze, but for how long? Already what seems a similar scenario just happened on the floor of the Nigerian stock Exchange and it took the intervention of the federal government to halt what could have been the worst stock market crash in Nigeria’s stock trading history? Recently, the central bank of Nigeria injected some more cash into the system to avoid possible break down. Unfortunately, critics blame the current looming global economic plague on the inability of the West to take at least a partial control of some vital sectors of the economy. Their argument being that abandoning every economic activity to the unseen twin forces of demand and supply may pose greater danger in the long run to the interwoven global economy. With the growing concern over the health of global economies, it the events of the 1930s do not reoccur, then the world can be considered lucky to have normally escaped another perilous chapter in its history of development.
3.0 **WORLD SPIRITUAL ORDER.**

Unfortunately, the world prides her self on the scientific knowledge. Yet this knowledge is largely confined to the physical world. She has developed and proven very elaborate scientific theories through empirical methods and yet she has no such methodology or instrumentation to understand the spirit world. In otherwords, she know so very little about spiritual things. For one thing, we know that spirit beings are not normally visible to the human eye. That is, we are referring to those spirit beings that do not inhabit physical bodies. We also know that all matter vibrates in the
physical world, although we do theorize that all vibration stops at a temperature of absolute zero (-460 degrees Fahrenheit). But since the laws of thermodynamics state that it is impossible to attain a temperature of absolute zero, we can state that all physical matter and atomic matter vibrates. Similarly, from the theory of relativity developed by Albert Einstein, we know that energy and matter are interchangeable. Could the same be true with the spirit world?

Indeed, from the knowledge of science and Bible, we can infer that spirit beings can travel faster than the speed of light (which of course deemed impossible in the physical universe). Thus, Einstein concluded that it is impossible to travel at or greater than the speed of light. As an object approaches the speed of light, its mass increases. As mass increases, it takes increasingly more energy to accelerate the object making attainment of the speed of light impossible. Theoretically, at the speed of light an object would have infinite mass and by mathematical definition would have to have zero acceleration (Timmons, 1991). Thus, the fact that the devil and Angels can leave the planet Heaven, located somewhere near the North Star, Polaris and travel to earth as quickly as they do necessitate that they travel greater than the speed of light. Again, given quantum mechanics, as an object approaches the speed of light, time slows appreciably. Then, could we not infer that spirit beings (with their bodies operating at speeds greater than the speed of light) would be eternal being since time stands still at or past this speed? In fact, we know that spirit beings are eternal and possibly it has to do with the laws of the universe.

Therefore, every human being is a three-fold of tripartite being: Spirit, Soul and Body. The spirit is the real you and will dwell forever in either heaven or hell. The spirit realm or world is all around us and we do not see it with our physical eyes, but there are theoretically thousands of planes existence which could co-exist with our own, differing only in vibrating rate. Specifically, there are thirteen planes in the spiritual world or heavens directly above the earth. Here, our scientific knowledge (most of which is empirical in nature) is limited to the physical realm. Consequently, we are limited in our knowledge of the spirit world because of the fact that we try to use our scientific laws in the spirit world and they do not work there. In fact, we have no scientific instruments available capable of measuring spiritual phenomena. Then, our knowledge of the spiritual world must of necessity be confined to the first hand testimony of those who have been there and have experienced the spiritual realm and to our knowledge from the word of God. Especially, the Western world have progressed in the physical sciences while the West African countries (such as Nigeria) have progressed in spiritual science to such a degree that those humans in dark kingdom and possess tremendous spiritual power. However, the actual problem is our failure to both see and counteract he spiritual work of the devil, principalities, powers, rulers of darkness and wicked spirits in the heavenlies).
Initially, the kingdom of God was ruled by God the Father, God the Son and God the Holy Spirit. They ruled from the planet Heaven (located in the vicinity of the North Star, Polaris). Subsequently, the Triune Godhead, Trinity or Elohim created the Angels out of the brimstone of hell and they were created with great strength, wisdom, plus beauty. Their main purpose was to help God administer His government and Kingdom throughout the universe. Of this entire angel, Lucifer was created with the most wisdom, power and beauty. He was the head of the Archangels (Michael and Gabriel) and was the commander over all of the other Angels. His primary function was in the very throne room of God and was there to minister before God and to usher in the praises to God from his creation. At this time, there were love, joy, peace and harmony everywhere within the Kingdom of God and then came the rebellion which resulted to changes in the kingdom. Indeed, the original rebellion was initiated by the two Angels with great power who were the closest to Lucifer (Satan). Their names were Belial and Leviathan; and they told Lucifer that he should be God. Lucifer refused to rebel against his creator but eventually changed his mind after God punished Leviathan and Belial for instigating and counseling a rebellion within the Kingdom. Instead of respecting and seeking God’s forgiveness in Heaven, he decided to lead a total rebellion against God. It was the one whereby Lucifer was able to enlist the aid of one third of the trillions of angels which God has created. Lucifer appealed to these Angels by telling them God’s government was unjust and dishonest. One-third chose to rebel and the battle was on. In fact, Lucifer, Leviathan, Belial and other rebellious angels proceeded to fight against the Angels remaining true to the Godhead; and the battle was fierce it was carried to the very throne room of God before the rebellions forces were pushed back and stopped. Lucifer had lost the battle, but he was still determined not to lose the war. He and his rebellious angels were cast down out of Heaven and they were cast down to earth and the atmosphere (heavens) above the earth. Then these evil angels once again tried to war against God and over throw the kingdom of God. Again he was defeated and the battle was more decisive. After this last attempt of Lucifer to take over heaven, the heavens and the earth were destroyed. Only the planet heaven and the foundations of the earth remained intact.

As soon as God created man, Lucifer developed his plan with Leviathan to retake the world from mankind and they wanted a place better than hell which was their inheritance after the rebellion. Subsequently, God renamed Lucifer, Satan (adversary). Since this time, Satan has been attempting to threat and stop the plan of God to bring peace into His Kingdom. After the first prophecy that God would destroy the kingdom of darkness, Satan began to look for a man who could bring this prophecy to pass. Consequently, he tried to pollute the human race through fallen angels which he commissioned to assume the form of humans and marry women. Because this plan by Satan was very successful in a short time, the human race became polluted due to the hybrid, giant children produced through sexual intercourse between these
angels and women on the earth. This plan of the Dark Kingdom came about to genetically pollute and destroy the human race in order to prevent the Messiah from being born. Satan thought that through the total deprivation of the human race with this angelic liaison, God would be forced to destroy man. But they overlooked one man whom God saw to be righteous in His sight and that man was Noah. Through Noah and his righteousness, God was able to preserve his plan to redeem the earth from the Dark Kingdom. Through the deliverance of Noah, God was able to preserve a remnant (eight people) of the human race. But while Satan was at work to introduce sin and wickedness to the earth to destroy mankind and stop the Messiah, God was busy choosing another servant with whom to make a covenant. After He established His covenant with Abram, God later changed his name to Abraham which means father of a multitude. Indeed, it was through the lineage of Abraham that the Messiah, Jesus, was born. Essentially, Jesus came to do the will of His father and His main purpose was to destroy the works of the Dark Kingdom.

Bible scholars often divide God’s plan for man into five main ages or divisions and these are the ANTECHAOTIC age, ANTEDILUVIAN age, PRESENT (CHURCH) age, AGE TO COME, and ENDLESS Age. The ante chaotic age deals with the time from the original creation until chaos (Lucifer rebellion). The antediluvian age is from the six days of recreation of the earth until Noah flood. The present (church) age covers the period from the flood of Noah until the present time and it will continue up till the second coming of Christ. The Age to come is called the Millennium (1,000 years). Christ will rule the earth during this time which extends from the battle of Armageddon until God makes a new heaven and earth. During this time, Satan and his angels will be bound and there will be a thousand years of true peace and prosperity. Here, God will demonstrate to the world what it is like with peace in his Kingdom. The endless age is eternity (time without end). All human beings will dwell during this time either with God on the new earth or with Satan in the lake of fire. Specifically, it is at the beginning of this age that God will move the Holy City (New Jerusalem) to the Earth from Heaven; and the earth will then be at the center of God’s Kingdom in the Universe. Essentially, God’s plan for man is primarily twofold: to worship and praise Him and to establish the Kingdom of God and His control upon the earth. Unfortunately, it is important to realize that Satan is more powerful and dangerous to us today than he was during the time of the early church. This is because of the fact that he is able to possess and oppress more human beings today than ever before. Also, he has more servants today in human form and has another two thousand years of experience warring against man on earth; and through his continued scientific research in the spirit realm, he has continued to advance his earthly and spiritual realm. In fact, he has scientific laboratories in the spirit world where research is carried out day and night against both God and man. Because he has been able to advance his kingdom, many of those who
are in positions of high authority with him actually believe that they will be victorious and win the conflict with God.

In its present form (that of a man) Satan is able to transform himself into nine hundred and ninety nine different forms. He can also appear in his original form of beauty, but can do so for only a limited period of time. Satan is called “god of this world”. As the god or ruler of the world, he has established a ruling hierarchy according to the geography of the earth. The earthly kingdom of the devil is divided into four separate kingdoms located in four separate geographical locations upon the face of the earth: Western kingdom, Eastern Kingdom, Southern kingdom and Northern kingdom. Each of these kingdoms is ruled not only by principalities and powers, but also rulers of Darkness of the world. Each of these rulers of Darkness would have reporting to them both wicked spirit and servient spirits, as well as other human beings “on their way up” in the dark kingdom. All of these humans are in various stages of corruption and power. What makes them this way is the continual sin and destruction in which they partake each day, as well as the “medicine” and charms they ingest into their bodies that affect them spiritually. The longer a person involved in the Dark kingdom and the further up the spiritual ladder they travel, the more their heart becomes corrupt and they become hardened I spirit and soul. Emphatically, they have little or no compassion for other humans whom they see as pawns with which to play in achieving their wicked aims. Here, their only objectives are the increase of power, money, prestige, fear and respect of their peers.

Within the organizational hierarchy of the Dark kingdom (directly under Satan) we find the principalities. These spirit beings (power demon angels) are four in number and they control the world for Satan. Here, they exercise control and dominate the world through five means: religion, occultism, finances, politics and sex. These four members of the evil gang (field marshals) dominate the world by given orders to millions of evil spirits and human beings. These principalities are: APOLLYON, ABADDON, BELIAL and the BEAST. Satan does give them assignments to carry out, such as how many people to kill, how much blood is required for the blood banks and who should carry out the assignments. They actually serve him in the highest positions of the evil government as the immoral governors of our world. Each of them, working with the eight powers and millions of demon spirits, interfere in the affairs of our world each and everyday. They cause war, death, false religion, immorality, sexual pollution, backsliding among Christians, strife and divorce in the family and any other evil thing. These four beings occupy the heavens above the earth along with Satan and from their, they prefer to control the affairs of men by sending the powers or Rulers of darkness to carry out their wicked schemes.

Next in the organizational structure of the Dark kingdom, we find the powers (eight in number) and they dwell primarily in the heavens above the earth. The plans of Satan and the principalities are carried out by the powers whom are executive officers to the principalities. They are both
transcendental and terrestrial demons; and they have access to both the earth and the heavens but unlike Satan, do not have access to heavens. In carrying out their works for the Dark kingdom, the powers use both Rulers of Darkness, wicked spirits, servient spirits and human beings (devil agents). In addition to human destruction, their main purpose is to keep man from worshipping the one True God and they also want to take as many human beings to hell as is possible. They eight demonic angels occupy the eight planes of the spirit realm directly above the earth. Here, each one of them occupies one plane which they control and these planes are quite large. There is much spiritual traffic in the lower planes and the higher planes (above planes six) can only be traveled to by the more spiritually advanced humans so they are not as crowded with human traffic. Strictly, no human being is allowed to enter the transcendental plane (plane 13) where Satan dwells and operates his spiritual satellite system, powers disperse spiritual and material gifts to those humans who assist them and these gifts include money, sex and spiritual power which are the ultimate power. Most humans who have worked in the Dark kingdom for any length of time are quite wealthy and know they can obtain anything they desire from the physical world through spiritual power. Basically, the eight powers are ASHTAROTH, BAAL, MAGUG, BEELZEBUB, ASMUDEE, MAMMON, PAIMON AND ARITON. However, there is a lot of interaction among these spirits and humans. That is the reason why those humans who have advanced spiritually are able to meet with and have intimate relations (dinner, sex, etc) with Satan himself. Directly under these powers are millions of servient and familiar spirits who along with the Rulers of Darkness of this world, carry out their assignments from the Dark kingdom. They meet nearly every night of the year but powers and principalities have one long formal meeting with Satan once a month (on the last Friday). Consequently, it is time that we became serious about stopping them and their evil schemes against the human race.

Specifically, mammon occupies the sixth plane above the earth. Here, he is in charge of the storehouses of Satan in the heavenly realm. He sells anything belonging to Satan and these include Charms, spirits, witchcrafts, magic mirrors, fame and many other things. He is like a mass merchant for the dark kingdom and thus distributes the wealth of the Dark kingdom to the servants of Satan in the world. This is done to maintain and reinforce satanic control over the entire world and this control will reach its zenith in the last days during the reign of the Beast. The Beast will exercise control over much of the world. Precisely, the Beast will control the world through its financial systems. For this control, he will work hand in hand with mammon. Predictably, there is going to be a financial collapse that will usher in control by mammon and Beast. Mammon is also responsible for establishing the contracts involving money and its distribution with the agents and rulers of Darkness employed by the dark kingdom. He has contract with certain families in the earth who do his bidding for great sums of money. On the other hand, mammon tries to keep money out of the hands of Christians,
especially those with giving hearts who want to do something for God financially. Others may wonder why they are having such financial difficulty today. Perhaps, this is the god of mammon at work. Magog is the power and demon of war. He is sometimes referred to as the demon of iron. Asmodee is heavily involved with sexual immorality and he marries people for Satan. Ariton is the power in charge of all the demons and agents involved with magical power. Beelzebub power exercises control in the spirit world over everything that flies. As such, he is over all the witches and wizards who fly in the night to the spirit world. It was through the power known as Baal that the occult was introduced into the world in an attempt to pollute the spiritual worship of man. Baal promotes religious prostitution as well as shrine prostitutes (and alcoholism). He is also in charge of mental illness and insanity with root causes in the spirit realm. Ashtaroth is in charge of all nature religions (paganism) as well as ancestor worship. As the earth goddess, she has acquired from Satan the secret of the various herbs and plants upon the earth. Consequently, all satanic healing originates with her.

Rulers of Darkness are next down in rank in the Dark kingdom. The highest rank for a ruler of Darkness is prince or princess. The higher demons (Satan inclusive) often refer to themselves as princes. But the highest rank a human being usually attains is that of sub-prince. These rulers of darkness can be either demonic or human but are primarily spirit-possessed humans. By the time a human being reaches the level of promotion to a Ruler of Darkness, they can do many of the things pure spirit beings can do. When a human first becomes a witch or a wizard, they will leave their body each night in the spirit and travel to their spiritual coven. In order to attain promotion to Ruler of Darkness, one normally begins his life in the Dark kingdom as a witch or wizard. The definition of a witch is a person who is possessed by a spirit of witchcraft and this is an actual evil spirit that possesses the person and drives them to do evil. Basically, there are three types of witches: black, white and red. Within these three types of witches are three classes: class I, class II witches and greater witches (class III). The meeting and operations of the witches normally takes place during the night between the hours of midnight and two or three A.M and then carry out their plans between three and six A.M. Although, some witches are males and some females, all wizards are males. However, their function is similar to witches and they travel in the night and often command hordes of demons. Perhaps, there are many political religious and social leaders throughout the world who are Rulers of Darkness. In order to be promoted as a ruler of Darkness, a person must bring the blood, heart or head of people whom that person has killed.

Like the witches, the wizards are able to change forms. They do this in order to facilitate their work and they often choose the forms of a bird, cat, rat, snake or a cockroach. Here, the form chosen will be as the situation dictates. In contrast to the Rulers of Darkness (who can be both human and spirit, but are usually humans) the SPIRIT WICKEDNESS IN THE HEAVENLIES are all evil spirits. They are comprised of the familiar spirits and the servient
spirits. The servient spirits are so called because they “serve” the principalities, powers and rulers of darkness of the world. On the other hand, the familiar spirits are also servants with the primary function of gathering information about humans for the dark kingdom. These spirits cause sickness, poverty and even death within the human race. There are millions of these spirits operating on the earth and they are grouped according to their function. They cause lying, adultery, drunkenness, wife beating, murder and many other atrocities. Any thing you can think of that is detestable, they are the root cause. In fact, they operate either through oppression or possession of an individual. Normally, these spirits operate in at least five ways: disease, possession, affliction, habits and death. Some of these spirits include Orionda, Cyriel, Jezebel, Ogeaso, Ojoko, Molech, Jinka, Arcarine, Queen of the coast etc. These Serviest and familiar wicked spirits have extraordinary power, especially against the non-Christian. Indeed, it is the principalities and powers that cause most of the problems in the human race.

Empirically, anthropologist has carried out substantive research on African witchcraft and has made systematic analyses of the reasons why witches are believed to exist there (Offiong, 1991). Her, their emphasis has been that witchcraft roles or in a state of tension with one another, such as co-wives of a polygamous husband, mother’s brother and sister’s son in a matrilineal society, elder brother and younger brother in many societies. On the basis of this finding, social societies, particularly anthropologist have concluded that witchcraft accusations act as releasing mechanism for tensions inherent in a system of social relations. Again, because of the connection between social tensions and witchcraft beliefs, there has emerged the concept that witchcraft operates between persons who stand in some form of social relation rather than between strangers. Consequently, there exist understandings that witch beliefs and associated practices are evidence of social tensions, but that they are not necessarily the only institutions in which these tensions are reflected or find an outlet. However, Anti-witchcraft crusades are not strange to Africa. Specifically, in West Africa, there occurred a movement of witch-hunters after the Second World War. This movement originated in Ghana, across Togo and Dahomey, and into Nigeria known as Nara Torgo, or Anatinga, these men spread excitement into many areas, enriched themselves and their initiates and yet were supported by a large body of public opinion, even among the educated, as doing good work in checking the destructive deeds of witches. Their activities were held in check, publicly at least, by prohibitive legislation in 1951 (Paminder, 1963).

Definitely, witchcraft is to the kingdom of darkness what the Holy Christ is to Kingdom of God. This practice is not geographical nor is it culture-determined and it is a world-wide phenomenon. It is at the hub of devils power network and drives the entire apparatus of the devil. It is not an act but a system. Understanding is one of the four facilities of the human spirit. Others are communion, conscience and intuition. And if we possess understanding, we grasp the fact that the Odo Occultic Practice is the
classical and best form and express of witchcraft spirit within the South East of Nigeria. Its invention of “evil things, its oath of secrecy, the development of a unique and hitherto unknown language, its castrating hold on the minds of people, have all been imitated by other Occultic groups within the South-East (Agbu, 2005). Manipulation is spiritual seduction and it is mind control through diabolical means. It is seducing people to do your bidding without allowing them know that they are merely acting out your spirit. The strength of manipulation lies partly in the fact that those who are being manipulated never really get to know that they are under the influence of the seductive spirit of witchcraft. This is where the Odo Occultic practice exerts its greater influence. Odo, like the witchcraft kingdom, is engaged serious networking. In the heydays of Odo in Neke, the Odo agents in Neke are always being invited to resolve certain problems that could have arises in the practice of Odo. The agents from Neke usually provide the “final word” on such problems. And since the fall of Odo in Neke, Odo agents from other towns (such as Neke-Uno) have been coming and encouraging them to revive Odo in Neke. Unfortunately, the end of Odo in Neke is a sign of the extinction of Odo anywhere in the world.

A political decision was needed in the old Europe to deal with the goddess Diana (Artemis) and it was also believed that the Joan of Arc used witch craft powers to unite the whole France against England. But our own politicians are powerless against this spirit because witchcraft is another word for “rebellion”. Our political authority lacks the ability to deal with the Odo occult for two reasons. Firstly, it is not for politicians but for prophets to deal with such issues. Secondly, many of our politicians (their rulership) are a rebellion against the will or wish of the people (majority of the masses). So kingdom cannot rise against kingdom and no rebel can fight against a witch. It would be similar to the president of the Federal Republic of Nigeria fighting the commander in chief of Nigeria Armed Forces. However, the legal view against secret societies has always been a part of the constitution of the Federal Republic of Nigeria. The constitution has always maintained that a member of a secret society has no legal right to hold public office. Perhaps, many of our public servants, including (sadly) those that hold one position or the other in the Churches and Mosques are sworn members of blood-sucking secret societies. Or why do you think that there are so much political killings all over the land? Yet, in the 1999 constitution of the Federal Republic of Nigeria, there is a provision for the “Right to freedom of thought, conscience and Religion” as stated in section 38. However, in sub-section 4, the constitution clearly states that “nothing in this section shall entitle any person to form, take part in the activity or be a member of a secret society”. Also in the “FIFTH SCHEDULE,” part 1, captioned, “Code of conduct for Public Officer shall not be a member of, belong to, or take part in any society the membership of which is incompatible with the functions or dignity of his office. The fact that the law makers added the prohibition of membership or formation of “secret society”
in the section that deals with the “Right to Freedom of Religion” is very instructive indeed. Thus, it can be inferred from such a rider that the constitution makers, because they are also members of the society; were aware that many could hide under the cloak of “religion” to form a “secret cult”. Consequently, people should not mix or equate occultism with Religion, for they are not the same.

Very sadly, before conducting the TELL magazine (Nigeria) round the important stations of the Okija shrine, Olisabueze (shrine Secretary) spoke to the principalities and powers that inhabit the shrine in evocative incantations. He affirmed again and again who he is, his relationship with the shrine, how the land is his fathers and why he had brought non-members into the shrine (for public good). For each station, he appeared to release some silent passwords and received clearance before asking them to follow. The party moved in a single file with a stern warning that one's feet must not touch the heels of the person in his front. Here, there are two shrines inside the Ogwugwu akpu Ubahu Ezike woods which is Y-shaped, with the right arm of the Y being longer than the left and the leg of the Y as the entrance. The left side was formally used as the hall of fame as both sides of it were filled with corpses. A few steps to the right side and there stood the first shrine. And further inside the right axis is the inner shrine (called holy of holies). According to the priest, Ogwugwu Akpu is very powerful and has served the needs of the initiates for many years. He attests to the fact their shrine receives so much patronage from Abia State and affirms that Olisabueze is now coordinator of activities as the chief priest is too old to perform his functions. They further explained that Ogwugwu Akpu Ubahu Ezike Okija was especially dedicated to Abia State patrons and they preferred that particular shrine because it is the most powerful of the Ogwugwu akpu. Fortunately, Olisabueze were among the forty shrine priests arrested all over Okija and taken to force Headquarters, Abuja, where they were detained for over one year.

In recent times, cases of ritual killing have been increasing and the dark spots to be avoided or where one must be careful to avoid some dangerous areas of cities. Critics keep wondering why in the 21st Centuries are experimenting with genetically modified food, cloning, aeronautic engineering, gas propelled vehicles, ethanol fuel, internet, solar energy and how to reverse global warming, some Nigerians still indulge in the superstitions process of ritual murder. The main reason is that Nigeria being religious people believes in the existence of supernatural beings and that these transcendental entities can be influenced through ritual acts and sacrifices. Rituals constitute part of the people’s traditional religious practices and observance. Nigerians engage in ritual acts to appease the gods, seek supernatural favors, or to ward off misfortune. Many do so not of fear or unpleasant spiritual consequences if they default. Religion, theism, supernaturalism and occultism are at the root of ritual killing in Nigeria. Again, Nigeria is a society where most beliefs are still informed by unreason,
dogmas, myth making and magical thinking. In other word, in Nigeria, belief in Ghosts, Juju, charm and witchcraft is wide-spread. Nigerian also believe that magical portions prepared with human heads, breasts, tongues, eyes and sexual organs can enhance one’s political and financial fortunes; that Juju, charms and amulets can protect individuals against business failures, sickness and diseases, accidents and spiritual attacks. In fact ritual making is perceived as an act of spiritual fortification. Similarly, Nigerians engage in ritual killing for money making purposes.

Yet, the most celebrated ritual killing in the recent past was the notorious Otokoto Saga in Owerri, Imo State, where a business man belonging to a cult used his apprentice for ritual. The boy’s corpse was later exhumed at the premises of Otokoto Hotel. Members of various secret societies, politicians’ businessmen and native doctors are usually the brains behind ritual killings. Research also revealed that there are markets where human flesh is sold with impurity across the country. Security agencies cannot deny knowledge of the alleged markets littered across the land and that most ritual killing kingpin are unusually the untouchables in the society. Unfortunately, the most perpetrators of the dastardly act are rarely punished by the law due to the rigorous process required to prove beyond reasonable doubt. More so, the court of law does not recognize the existence of charms as it is alien to the English from who Nigerians borrowed their judicial system. However, it was only in 2001 that instant justice by way of public murder was meted out to a famous preacher (Medicine man) the late Eddy Okeke (Eddy Nawgu) by the Bakassi Vigilance Group in Onitsha, Anambra State for alleged by using children to prepare rituals for the high and mighty in the society.

Indeed, majority of the extremely wicked people we see are those who would have made this world a better place, but they were not guided unto their right vocation in life. Consequently, the real enemy is not the person harming you physically rather the real enemy is invisible. For we are not fighting against human beings but against the wicked spiritual forces in the heavenly world, the rulers, authorities and cosmic powers of this dark age. So we have to pray and pray again to put these forces to flight so the sinner can see well and begin to act like a human being (and to act and love with a human heart). Bless god and utter His praise before all the living, for the Favour He has shown you. Bless and extol his name. Proclaim before all the people the deeds of God as they deserve and never get tired of giving Him thanks. It is right to keep the secret of a king and yet right to reveal and publish the works of God as they deserve. Glory be to the Father, and to the Son, and to the Holy Spirit; as it was in the beginning, is now and ever it shall be, world without end; one God who lives and reigns forever and ever, Amen.
4.0 **SOCIAL SECURITY THEORIES (LITERATURE).**

One of the earliest objectives of formal social security was to alleviate poverty and to provide an alternative to charity and the poor laws without the stigma attached to them (Beveridge, 1942). Other objectives have included the guarantee of minimum living standards and the replacement of income in times of adversity. Also, social security may entail a smoothing of corruption or a spreading of income over the life-cycle, and the reduction of risk. Often, there is a redistribution of income between groups with different needs. This
variety of objectives and the different configurations of political and interest groups have led to the different forms that social security has taken in different countries. However, an important component common to social security systems is social insurance and this entails the financing of benefits through contributions that might be earnings-related or collected through payroll taxes. Thus, the social security system in most countries relies on combinations of these measures. Among the measures, there are often substantial interactions; and these interactions help to determine whether the basic objective of protecting the vulnerable is achieved (Lipton and Gang, 1993). Therefore, it is likely to be misleading to focus solely on one program such as the public provision of retirement pensions. Evaluating groups of related schemes and their alternatives is difficult, but it is important because of their precarious budgetary positions and the expansion in benefits and in costs of provision. Costs can be expected to escalate as the proportion of those under age five continues to increase and as the proportion of elderly people rises. Again, the concern with targeting benefits effectively is relevant as the rising costs of provision coincide with growing budget deficits and political sensitivities associated with the “middle class” capture of the benefits. Here, effective targeting means including all the target groups, not merely excluding the no target group, but there may be tension between these two aims. If the budget permits, some inclusion of the nonpoor may not be too worrying and broad categories of need are met by universal programs with no means testing, such as child allowances. And because of the interaction of the tax and social security systems, it may be possible to “claw back” the provisions to middle class beneficiaries through taxation.

Basically, in a stylized representation, the international labour office (1984) has depicted social security as evolving over three stages. Firstly, was an era of paternalism; private charity and poor relief provided for the poor, being often subject to harsh conditions which impose stigma. Secondly, was an era of social insurance: following the precedents of friendly societies and of pensions and sick pay for employees in public and some private occupations, wider compulsory programs were developed covering more and more occupations and more and more contingencies. Here, the occupational origin of social security may still be retained in the form of separate funds. Thirdly, the concepts of prevention and universality have begun to be incorporated and the range of services is being extended with the aim of maintaining and enhancing the quality of life, here, the characterization of the initial phase is relatively firmly based and charitable provision, organized largely through the church, remained a mainstay for the poor in Europe for countries. However, Atkinson and Hills (1991) describe the social security systems in France, the United Kingdom and the United States in terms of three main elements. Here, the relief of poverty through assistance is typified in Britain by income support, in France by a similar range of insurance benefits, and in the United States by Old Age, survivors, disability and health insurance. Categorical transfers, which are provided to certain types of
households on a universal (non-means-tested) basis and directed at redistribution between specific groups, are illustrated by child benefits in the United Kingdom and allocations familiales in France, but have no counterpart in the United States. These elements interact with each other and with the tax system in meeting the objectives of social security.

Indeed, a public policy to ensure social security should take into account what individuals and households do to protect themselves. Identifying this protective behavior requires an examination of savings behavior and ability to smooth consumption overtime, and of transfers and support mechanisms within the extended family or community. Actually, there is evidence that individuals in poor countries can smooth consumption in the face of income fluctuations despite their relatively limited access to credit markets and their low incomes, barely above subsistence levels. The scope for smoothing consumption through accumulation and asset liquidation is limited, particularly when there are major repeated shocks. For life-cycle contingencies such as old age, the extended family remains the principal source of support in societies as diverse as rural China, India and sub-Saharan Africa (Ahmad and Hussain, 1991). This typically reinforces the desire and the need for sons, severely limiting the prospects for a reduction in the birth rate. However, problems arise when there are no male offspring or there is a break down in filial concern, often connected with an inability to provide support in time of need, given the constraints of a spreading nuclear family structure. And yet, in many parts of Africa, the term for poor is synonymous with lack of kin of friends. Therefore, support for the indigent who lack sources of family support tends to be based on community-level food security arrangements (Iliffe, 1987). Unfortunately, the community based social security instruments illustrate fairly sophisticated elements of redistribution and insurance. But coping mechanisms that work relatively well in normal times may fail in times of severe stress. Such shocks may also lead to a deterioration of the environment, unless measures are taken to prevent families and hardship for the entire community. These coping mechanisms do not exist in all places, and there is increasing evidence of dissolving family and ethnic ties, and of weakening community support systems in many countries. Moreover, traditional social security mechanisms based on the family encourage population growth, which may itself weaken community based mechanisms. Thus, more or less formal mechanisms are needed to protect the vulnerable on a consistent basis, and to ensure that the financing needs for these mechanisms are met. And because of the widespread strongest fiscal constraints, there is a need to design effective formal mechanisms that reinforce (rather than supplant) traditional support systems.

Consequently, there has been increasing concern about public provision for the aged and infirm. This concern has arises in part because of a shift in demographic profiles and a weakening of traditional family and community-based social security mechanisms. Here, several policy options could be pursued and a range of contributory policies that could be grouped
under social insurance could provide coverage for old age, disability and health care. Minimum or basic benefits could be targeted to the elderly or mothers with small children. Means-tested provision, because of the information costs and incentive effects it involves, is likely to be feasible only at the local level with community participation. Thus, the existence of permanent social security institutions can provide a basis for assessing whether short-term or temporary compensatory measures are needed. These institutions can help minimize outlays that may have to be incurred for short-term measures and indicate groups that might be at risk. Compensatory measures may be needed for a variety of shocks, such as those arising from the correction of unsustainable budgetary or balance of payments situations. Possible adverse consequences of adjustment include rising prices (particularly for food items, which lead to declining real standards of living for net consumers) and unemployment.

The provision of employment has long been an important instrument for preventing famine. Evidence has shown that it was used as early as the 4th century B.C. in India, and it was an integral element of the Famine codes developed in British India in the late 19th century. Essentially, public works have been undertaken to assist the unemployed in industrial countries (such as United States) as a response to the economic recession and food shortage in the 1930s. However, this sectors that are uncompetitive in an open trading environment, are unlikely to be sustainable as well as having stifling effects on incentives and initiative.

Distinctively, two social security concepts emerged in the 20th century: insurance concepts and redistribution concept. Bismarck introduced the insurance concept in the second half of the 19th century, where he designed the first social protection schemes for workers in Germany. On the other hand, British reformer Lord Beveridge developed the redistribution concept during World War II. Here, the insurance concept focuses on insuring workers against income loss in the event of unemployment, disability or retirement, that is, the system smoothes lifetime income. Both contributions and benefits depend on earnings, and most programs are financed out of premiums and managed jointly by unions and employers. By contrast, redistribution programs cover all citizens. Benefits are meant to be the last resort for workers without enough unemployment insurance; for households with no source of income, and for the working poor. The key focus is on poverty relief: benefits are mean tested and provided only a minimum income guarantee. Here, there is no link between contributions and benefits because they are financed through general taxes. Public administrative bodies usually administer the programs, which have few eligibility rules, although the means test is typically less strict for unemployed workers than for persons without employment history. Thus, the difference between the two types of programs can be characterized as solidarity among insured workers and solidarity among citizens as shown in table 4.1 (Marshal and Bulzbach, 2003).
### TABLE 4.1 SOCIAL SECURITY CONCEPTS: CHARACTERISTICS.

<table>
<thead>
<tr>
<th>S/N</th>
<th>FACTORS</th>
<th>PURE INSURANCE</th>
<th>PURE DISTRIBUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>MAIN GOAL</td>
<td>To guarantee socioeconomic status</td>
<td>To guarantee income at subsistence level</td>
</tr>
<tr>
<td>2</td>
<td>ELIGIBILITY</td>
<td>Depends on contributions</td>
<td>Is independent of contributions</td>
</tr>
<tr>
<td>3</td>
<td>EXPECTED BENEFITS</td>
<td>Match contributions (contributions are income tested)</td>
<td>Are means tested</td>
</tr>
<tr>
<td>4</td>
<td>BENEFITS TYPE</td>
<td>Depends on previous wage and contributions</td>
<td>Is means tested and at a flat rate.</td>
</tr>
<tr>
<td>5</td>
<td>FINANCING</td>
<td>Is through premiums</td>
<td>Is through general tax revenue.</td>
</tr>
<tr>
<td>6</td>
<td>ADMINISTRATION</td>
<td>Is private</td>
<td>Is public</td>
</tr>
<tr>
<td>7</td>
<td>FOCUS</td>
<td>Is labour market</td>
<td>Is citizens right</td>
</tr>
</tbody>
</table>

However, the savings concept represents a third alternative compulsory savings provide social protection for individuals, not only for retirement pensions but also for contingencies such as unemployment, disability and ill health. In fact, benefits depend on the accumulation of an individual’s compulsory savings. Again, most social security systems also provide some universal benefits: tax-financed benefits for specific contingencies that do not require either a contribution or a mean test. They can include child benefits and the flat rate retirement pensions in countries such as the Netherlands and Sweden; National Health Service in the United Kingdom and family support and child benefits in many other countries.

On the other hand, we expect countries in which the redistribution concept dominates to spend a relatively large portion of revenues on social assistance and family allowances, and a relatively small portion on social insurance. The reverse pattern applies in countries in which the insurance concept dominates interestingly, although the insurance system provides relatively high benefits to a limited group, while the assistance concept grants relatively low benefits for a large group, over all spending as a percentage of gross domestic products does not differ much between the two systems. Of course, in practice, many social security programs combine elements of both systems and all countries have faced trade-off. Again, the concepts and contest of particular social security schemes have also changed according to the political and economic context, and because policy makers continue to fine tune programs to suit economic and labour market conditions. Nevertheless, the classification of social security systems turns out to be remarkably stable over time.

Indeed, Economists do not often agree on whether a comprehensive system of social security and cuts in inequality from redistribution are an impediment or a spur to economic performance. A school of thought postulates that social security expenditures are thrown into a leaky bucket because the welfare gain of those who pay the social security premiums in
larger than the welfare gain of those who benefit. Another school holds that inequality is harmful to economic growth and the metaphor of the leaky bucket wrongly assumes that we live in perfect world with complete information and well functioning markets. Here, the school advances the irrigation function as an alternative to the leaky bucket. In other words, workers with some economic security will be more eager to search for new jobs, and job destruction and creation can proceed at a good pace at the macro level, enhancing productivity and economic welfare. Essentially, this irrigation function underscores the desirability of social security systems in newly developing countries that owing to technological catching with the industrial world, are witnessing fast economic growth. Thus, it is especially important for workers in those countries to spend time searching for good jobs and establishing good matches rather than earning a subsistence living in the informal sector.

Recently, pension system reform is at the forefront of policy discussions and changes in many developing economies. Here, a pay-as-you-go scheme is an intergenerational social contract of mandatory transfers from workers to pensioners, backed by an implicit government debt or promise to contributing worker cohorts that they will benefit from future worker contributions once they retire. In other words, a pay-as-you-go system is said to be financially balanced when pension payments are exactly matched by worker contributions. However, immature pay-as-you-go systems typically show surpluses which often turn into deficits when the ratio of pensioners to workers reaches that implied by system maturity. Again, in changing deprecative condition also impinge pay-as-you-go allowances. However, only when the pay-as-you-go system is mature population growth is constant, and pay-as-you-go is financially balanced are pensioners paid an average, a real return on their contributions equal to the real rate of growth of the wage bill or the economy (Corsetti and Schmidt-Hebbel, 1997).

Yet, an alternative mandatory pension arrangement is a defined contribution fully funded scheme that forces workers to serve part of their wage income for old age. Here, the average return on old age saving depends on (domestic and international) market interest rates and rates of return. In principle, as FF system could also include distribution among groups of workers within a given generation, hence weakening the relation between contributions and pensions. Basically, a pension reform that substitutes pay-as-you-go by fully funded scheme involves three changes. The link between worker contributions and benefits is strengthened; the previously hidden pay-as-you-go debt is made explicit, and the distributional function of the old pay-as-you-go system is separated from the new FF scheme. Yet, the most generalized feature of pay-as-you-go systems in the real world is pension system losses that grow overtime as a result of rising old-age dependency and increasing pay-as-you-go system maturity. Thus, the fiscal consequences of rising pay-as-you-go system losses are the single most important motivation for reforming pay-as-you-go schemes, typically more important
than the potential efficiency and saving-output gains reaped from adopting a fully funded system (World Bank, 1994).

Empirically, pension scheme was introduced into Nigeria during the colonial era to provide old age income and security to British citizens working in the country upon retirement. Thus, Nigeria’s first ever legislative instrument on pension matters was the pension ordinance of 1951, which had retrospective effect from 1\textsuperscript{st} January, 1946. However, the National provident fund (NPF) scheme established in 1961 was the first legislation enacted to address pension matters of private organizations. Eighteen years later, it was followed by the pension Act No. 102 of 1979, as well as armed forces pension Act No. 103 of the same year. The police and other government agencies pension scheme was enacted under pension Act No. 75 of 1987, followed by the Local Government pension Edict which culminated into the establishment of the Local Government Staff Pension Board of 1987. Again, in 1993, the National Social Insurance Trust Fund (NSITF) scheme was established by Decree No. 73 of 1993 to replace the defunct NPT scheme with effect from 1\textsuperscript{st} July, 1994 to cater for employees in the private sector of the economy against loss of employment income in old age, invalidity or death. Prior to the PRA 2004, most public organizations operated a Defined Benefit (pay-as-you-go) scheme. Here, final entitlements were based on length of service and terminal employments. The Defined Benefit (DB) scheme was funded by Federal Government through budgetary allocation and administered by pensions Department of the office of Head of Service of the Federation.

Subsequently, the pension Reform Acts (PRA) 2004 was enacted and came into effect in 1\textsuperscript{st} July, 2004. This act established a Defined contributory (DC) pension scheme as against the erstwhile Define Benefit (DB) pension system for all employees of Federal public service, Federal Capital Territory (FCT) and private sector of Nigeria. The objectives of the PRA were to ensure that every retired worker receives his or her retirement benefits as and when due; assist improvident individuals by ensuring that they save in order to cater for their livelihood during old age; establish a uniform set of rules, regulations and standards for the administration and payments of retirement benefits for the public service of the federation, Federal Capital Territory and Private Sector; establish a sustainable pension system that empowers employees to have control over their retirement savings account (RSA), promotes labour mobility and minimizes incentives for early retirement; ensure transparent and efficient management of pension funds and promote wider coverage of pension scheme in Nigeria. Under this act, the major operators of the pension are mainly National Pension Commission (Pen Com), Pension Fund Administrator (PFA), Closed Pension Fund Administrator (CPFA) and Pension Fund Custodian (PFC). Pension is the apex body of pension industry in Nigeria and was established to regulate, supervise and ensure the effective administration of pension matters. PFAs are private limited liability companies licensed to manage pension funds under the act. Again, any private organization or public agency with existing self funded and well
managed pension scheme that wishes to manage its own fund is allowed by section 39 of PRA and item 4.15 of Pencom guidelines to be licensed as CPFA. This CPFA shall have the same responsibilities/functions as PFA and reports to Pencom. A PFC must be a bank licensed to hold the pension fund assets on behalf of PFA. Here, the monthly contributions for an employee covered by the new scheme are made in accordance with the specified rates.

Yet, another Nigerian project (of National planning commission) seeks to develop a formal social security system for the country. The proposed study is expected to review any existing social security programme in the country as well as highlighting its strengths (weaknesses); develop a theoretical base for the system within the paradigm of Transfers, Targets and Poverty (TTP); and provide a blue print for the take-off of the system in the country.

Subsequently, for employees and their dependants, including the unemployed, a social security system that would provide a variety of timely social assistance inform of welfare scheme was the focus of a national summit on social security in Abuja (2005). This summit was convened by the House of Representatives Committee on labour, employment and productivity and Nigerian Social Investment Trust Fund (NSITF). Given the on-going efforts for legislation on social security in Nigeria, stake holders at the summit identified strong political will and commitment by government and other stakeholders; clear vision of what it entailed and measurable goals that were achievable as some of the imperatives for an efficient social security scheme in the country. Other identified factors included tackling the challenge of funding, putting in place necessary structures to facilitate the scheme and setting a time frame for its timely establishment and take off. In other words, there is need for an expressed political will and political orientation on the part of all stake holders in the social security system. There is also need for the establishment of a philosophical and ethical framework for the establishment of a social security system in Nigeria. Furthermore, the summit noted that there is need for an actualization of the constitutional expressed aspiration of social justice through social security system. Again, that, there is need to examine the possibilities of using the structures and mechanisms operated by the informal sectors in the provisions of an holistic social security; and this has to be specific to the individual components of social security. The summit also stated the need for a policy guideline on the provision of an enabling environment such as structures and infrastructures, mechanisms and processes, functionality of the state and rule of law, accountability, transparency in the management of the scheme, and sustainability. Consequently, there is need to institutionalize the active participation of the grass roots in the establishment, control, management and evaluation (consultation, ownership and identification) of the social security system.

Unfortunately, Nigeria’s privileged class has been most irresponsible and way word in the way it has conducted the affairs of the country. As a result, Nigeria has been transformed (in the space of forty eight years) into a
warfare society rather than into a welfare society. Critically, the root of the warfare society is social injustice and the only way out of the problem is the eradication of social injustice using powerful tools like social security system measures.

5.0 SOCIAL SECURITY MODELS (SSM).

Policy makers generally assume that growth will provide them tomorrow with the resources required to deal with today’s problem. Thus, promises that the poor will receive a share of the additional goods and services created by growth are widely substituted for any real effort to change social values or redistribute current income. Therefore, in this section, we describe the nature and implications of the proposed model that we construct to understand better the long-term causes and consequences of
growth in the human population and material production. To manage complex social systems effectively, policy makers must bring together a variety of mental models (biological and technological); translate them into a common language; and determine simultaneously all their important implications. That process of synthesis requires formal models, that is, models whose assumptions are stated explicitly so that they can be widely examined. The proposed model (SSM) is a typical formal mathematical model of a complex social system. It combines elements of both the ecological and technological views, as well as theories derived from many traditional disciplines. Like all models, it simplifies the great complexity of the total socioeconomic system. Here, the method used to select, translate and analyse the wide variety of information contained in SSM is called **SYSTEM DYNAMICS**. It is based on modeling paradigm quite different from the conventional ones.

Indeed, making a formal system model is a nonlinear process that involves many experiments, regressions and reiterations. Nevertheless, the process must cycle through a number of logical steps in sequence; and each step is dependent on the successful completion of the one before. These steps include general verbal description of the system within which the problem is observed; precise specification of the model’s purpose in terms of the dynamic system behavior to be explained; definition of the model’s time horizon; identification of the major elements necessary to represent the relevant aspects of the system; postulation of the model’s structure, conceptualization of casual relationships and feedback loops; estimation of the model’s parameters and quantification of casual assumptions; evaluation of the model’s sensitivity and utility through computer simulation; and experimentation, by means of further simulation with possible alternative policies. Thus, the SSM complex system will historically exhibit increasing growth rates of population, industrial output, food production, and resource use. All this productive and reproductive activity is based on complex ecosystems that provide the maintenance functions necessary for human society. These ecosystems are governed by immutable physical laws and are vulnerable to degradation from misuse. And the human social system is composed of political and economic institutions that respond to perceived shortages, primarily through the development of new technologies. For the model time horizon definition, a human lifetime is about seventy years, persistent pollutants may circulate in the environment for fifty years and new technologies may require thirty to eighty years to be developed and implemented. Thus, the dynamics of human population and capital growth and their interaction with the environmental carry capacity would extend over more than hundred years (Meadows, et.al, 1974).

To begin the SSM construction, the two quantities most responsible for material growth are represented in separate sectors: population and capital. The population factor incorporates the effects of all economic and environmental factors that influence human birth and death rates and thus population size. The capital factor includes the manufactured means of
producing industrial, service and agricultural outputs. As population and capital grow, they stimulate the development of new technologies that permit more efficient use of the earth’s resources. At the same time, the increasing numbers of people and factories require more resources for their maintenance. Therefore, the model had to include representations of these resources and the dynamic processes that increase or decrease them. These are included in the three sectors representing determinants of the environmental carrying capacity: agriculture, non renewable resources and pollution. Agriculture includes all land and other factors influencing the effects of capital inputs on food production. The non renewable resources represent the fuel and mineral inputs required to make use of the capital stock for producing goods and services. And the pollution factor stands for the persistent materials produced by industry and agriculture that may reduce human life expectancy, agricultural productivity, or the normal ability of ecosystems to absorb harmful substances. Since we are primarily concerned with the approach of the human population to the carrying capacity defined by physical limits, we assumed that the social system would not produce any global, discontinuous misuse of resources on a scale greater than that prevailing today. In other words, SSM incorporates only factors representing the gradual effects of the social system as it changes human values in response to new economic or environmental situations. Here, population is partly disaggregated by age and capital is effectively divided into four categories: industrial, service, agricultural and oil tankers. Land is separated into potentially arable, arable and urban-industrial categories. Neither the pollution nor the resource sector is disaggregated to represent different materials. Rather, each of these sectors contains only one state variable, characterizing a typical persistent pollutant and non renewable resource, respectively.

The structural assumptions that make up a system dynamics model are commonly expressed by a typical causal-loop scheme. Here, system interactions are shown by arrows leading from each element to all other variables that might be influenced by changes in that element. The polarity of each causal influence is indicated by a $+$ or $-$ sign near the head of the arrow. A positive polarity means that an increase in the first element will cause an increase in the second (and a decrease will cause decrease). On the other hand, a negative polarity signifies that an increase in the first element will produce a decrease in the second (and a decrease will produce an increase). Basically, causal-loop diagrams are rough sketches of the interacting feedback loops in the model on the computer, but they do convey the general pattern of major system interactions. However, a DYNAMO flow scheme contains considerably more information about the model structure than causal-loop scheme. It provides information about the functional form used to represent each element in the DYNAMO equations of the model. Specifically, DYNAMO was developed to represent the continuous feedback interactions in system dynamics models.
Essentially, there are two important feedback loops in SSM that produce the potential for exponential physical growth in the model system. The first governs human births and the second determines investment in industrial capital. Firstly, an increased number of human births increases the population and the greater number of people then leads to still more births increase. Secondly, an increased rate of capital investment adds to the stock of industrial capital, which makes possible a greater industrial output. Increased output, in turn, permits more investment, which raises the stock of capital still higher. Definitely, growth in population and capital is exponential in form because of the nature of the processes that generate population and capital. Here, people are needed to produce more people; and machines and factories are needed to produce more machines and factories. Thus, annual increases in population or capital depend in part upon the amount of population or capital already present. Whenever the rate of growth of any quantity varies directly with amount of that quantity, a positive feedback loop is present, and growth, if it occurs at all, will be exponential. However, the negative feedbacks that can balance the growth potential of population and capital are contained primarily in the agriculture, resource and pollution sectors of the model in the form of assumptions about the physical limits of the global system and their limits are represented as dynamics.

In SSM, physical limits provide negative feedbacks to population and capital growth, primarily, through the assumption of diminishing real returns to the utilization of any physical resources to the utilization of any physical resource. Negative feedback is also provided by various social mechanisms: shifts in relative prices, advances in technology, and changes in social values may operate to adjust the rate of approach of the growing population to the ultimate carrying capacity of the environment. These social feedback mechanisms are incorporated into SSM implicitly; and they are interspersed throughout all five model sectors rather than being incorporated in separate sectors of their own. Consequently, economic price is a function of two socially determined variables: current marginal value society places on a specific good or service, and the apparent marginal cost of supplying that good or service. Again, economists postulate that the price system performs a long-term stabilizing function in economic systems by signaling resource security. In other words, when a material becomes scarce, the cost of obtaining it increases and all products containing it will increase in price and the price increase may trigger numerous social responses. Again, technological advance, like price, is a social phenomenon and it results from applying man’s general knowledge about the world to the solution of specific, perceived human problems. The network of interlocking feedback loops defined by the structural assumptions constitutes the skeleton of the model, the framework upon which all further analysis depends. Here, system dynamics places primary emphasis on determining this model structure, rather than on estimating numerical parameters. Indeed, system dynamics is primarily a technique for simulating social systems, and its users are working to
understand the possible behavior patterns of a total system rather than to predict the precise future values of a specific variable. Therefore, the method emphasizes using the most comprehensive available information, however precise, in the belief that social systems are often guided by human perceptions, biases, goals, expectations or dissatisfactions that cannot be measured exactly and are not included in any standard compilation of statistical data. Though they are important, these intangible variables are seldom measured, because their dimensions are difficult to define operationally. Yet, estimates of such unmeasured, intuitive variables are generally included in system dynamics models on the assumption that their inclusion, even with some inaccuracy, produces a more useful and accurate representation of the total system than does their omission.

Basically, SSM is a model of the continuous dynamic interaction between the human population and the national resource base (defined as the environmental and the economic potentials to fulfill human needs). Here, if the supply of and the demand for any given resource become unbalances, the model system can generate two types of responses, as shown in figure 5.1.

**FIGURE 5.1 FEEDBACK LOOPS OF POPULATION-RESOURCE**

Economic or technological response can change the supply of the resource. Alternatively, a demographic response may change the demand for the resource by altering the population size. In this total scheme, the function of the population sector is two fold. It calculates the total population size, which is one determinant of resource demand, and it represents the demographic response of the population, through the birth rate and the death rate, to the changing resource supply. In fact, two basic dynamic characteristics are exhibited by all human populations: a tendency toward exponential growth and a long delay in the population’s adaptive response to changing external conditions. The actual rate of growth, the nature of the adaptive response, and the length of the delay vary, depending on many factors in the total system. However, when any biological population grows, the pattern of
growth over time tends to be exponential. Thus, the tendency for the growth of any animal population to be exponential follows directly from the fact that the source of additions to the populations is the population itself. Here, the total increase in the population during any time period must be at least partially determined by the size of the population of reproductive age in that time period. Mathematically, the population increase can be expressed by the following differential equation:

$$\frac{DN}{dt} = rN$$ (5.1)

Which states that the rate of change of the population, $dN/dt$, is proportional to the size of the population $N$. If the factor of proportionality $r$ is constant, the solution to this equation is

$$N = N_0 e^{rt}$$ (5.2)

Where $N_0$ is the initial population; $N$ is the population at time $t$, $r$ is the net population growth rate; and $e$ is the base of the natural logarithm. The net growth rate $r$ is usually not constant; it varies as a function of time; and the actual population growth is therefore not perfectly exponential process and consequently, past increases enhance the probability of further increases, unless strong forces from the rest of the system oppose the tendency toward growth. Holding the migration factor, the net growth rate ($r$) is simply the difference between the birth rate $B$ and the death rate $D$ (both expressed as fractions of the total population):

$$R = B - D$$ (5.3)

Demographers often refer to $r$, $B$, and $D$ not as fractions of the population but as percentages.

The determinant of human birth and death rates are as numerous and diverse as the cultural, economic, and environmental systems that form human experience. Consequently, this population model simplifies the population system by grouping all the factors that might possibly influence birth and death rates into logical, comprehensible categories of functional significance. The demographic determinants arise from the population age structure, and thus, they are themselves determined by past birth and death rates. Here, the demographic determinant of the total number of births in any given year is the total number of women of each age in the population while the demographic determinant of the number of deaths each year is simply the number of persons of each age in the population. Each demographic determinant is multiplied by an external determinant (fertility or mortality) that reflects all the socioeconomic influences on the vital rates. The fertility is the probability that each woman of child bearing age will actually give birth and the mortality is the probability that a person of any given age will die. What logical categories then can be perceived in the many external determinants (biological, social, and economic) that affect fertility and mortality? It may therefore be useful to distinguish between the voluntary factors that result from human intentions, desires and goals and the involuntary factors that result from biological or physical constraints. It is also
necessary to include a third category (factors of control that a population can use to attain its fertility and mortality goals). Functionally, the control factors mediate between the voluntary and involuntary factors and determine how effectively a population can achieve its desired fertility and mortality rather than those imposed by nature. Here, the factors of control are primarily technologies such as contraceptives techniques, public health services and medical procedures.

The quantities and types of goods, services, and food available to an individual strongly influence his education, values, health, family size, and lifestyle. Each of these personal characteristics in turn influences the mix of goods, services, and investments he is likely to prefer in the future. The objective in this capital sector specification, is to provide the basic components of a causal model that would project long-term patterns in the population's access to material goods, services and food. Here, measures of historical productive activity must be derived from indices of the productive activities of an individual country. Consequently, the most widely used national economic index is Gross National Product (GNP); which is the monetary valuation of all the material goods, food and services produced by a country in a year. Specifically, we identify four categories of output. The service output, intangible component of GNP, is composed of activities that promote the population's health, education, culture, and so on. The utilization of service capital to produce service output does not deplete resources or generate persistent pollution. Agricultural output is the portion of GNP composed of those activities required to produce, process and distribute food. The utilization of agricultural capital does not deplete nonrenewable resources but may generate persistent pollution. Production of nonrenewable resources is the component of GNP composed of utilities needed to locate, extract, process, and distribute minerals and fuels. Here, the capital required to obtain resources is considered a part of industrial capital. The industrial output is composed of the total global stream of manufactured goods; and thus the utilization of industrial capital to produce industrial output both depletes resources and generates persistent pollution. For the model, we defined two uses for the output of the productive process: consumption and investment. All output that disappears within one year of its generation is treated as consumed. Thus all service outputs and all agricultural outputs are consumed. The flow of material goods comprising industrial output may be either consumed or invested in the service, agriculture or industrial sectors. However, the designation of the investment depends on the function it fulfills.

The fundamental assumption of the agriculture sector is that the total amount of food that can be produced on the earth each year has some limit. It is well known that the allocation of more physical resources (land, water, fertilizer and labor) to food production will increase the annual food output. However, we postulate that the physical resources that can be allocated to food production are limited: in SSM, the available agricultural land is limited, the amount of fertilizer is limited by the total industrial production capacity,
and the land fertility is limited by pollution absorption mechanisms. Although technological innovations may lead to higher yields on a given land area, we postulate that these are decreasing returns to technology's ability to increase land yields by diverting other limited resource inputs to the agriculture sector. The model is also based on the fundamental assumption that there is an upper limit to the total amount of food that can be produced annually by the agricultural system. Here, it is assumed that the upper bound on the amount of land that can be brought under cultivation and that the land yield (annual output from each hectare) is also bounded. The implication of the basic assumption is that investments in raising arable land area and annual output per hectare must exhibit decreasing marginal returns, until at some point additional investments yield no return.

Here, the nonrenewable resource sector, a nonrenewable resource is defined as a mineral or fossil fuel commodity that is essential to industrial production process and is regenerated on a time scale that is long compared with the time horizon of the model. Nineteen examples of included nonrenewable resources are as follows: Aluminum, Chromium, Coal, Cobalt, Copper, Gold, Iron, Manganese, Mercury, Molybdenum, Natural Gas, Nickel, Petroleum, Platinum, Silver, Tin, Tungsten And Zinc. Essentially, the aim of this sector is to specify a set of model relationships that represent the basic factors controlling the use of nonrenewable resources and relate the cost of extracting and processing them to the productive efficiency of the industrial sector of SSM. Exponential growth is the production and usage of nonrenewable resources has been the most prominent long-term historical behavior mode of importance to the sector. The fundamental postulate of the nonrenewable resource sector is that resources are present on the earth in finite supply and are distributed widely in grade and in location. It is equally assumed that this finite stock of resources is not destroyed when used but instead is dispersed geographically or changed chemically. Here, the finite stock of virgin resources is discovered at a rate that depends on existing exploration technologies and the amount of capital invested in exploration. After discovery, these resources are classified as proven resources and then extracted from their original location and refined into processed raw material, which is then made into products that are eventually discarded to become solid waste. This solid waste can be either recycled and converted back to processed raw material or disregarded, in which case it eventually disintegrates or disperses to such an extent that profitable recycling is possible. The dispersed or degraded resource is termed pollution.

The flow of resources can also be viewed by considering the different entropy States associated with each of the material levels. The resource is usable as processed raw material when it is in its highest concentration or lowest entropy state. The resources entropy tends to increase through dispersion or chemical conversion as the resource is processed into materials in use. When a material is discarded, its entropy state is increased as solid
waste and increased even more as a pollutant. To convert a material into its most usable form, its entropy must be decreased. And according to the second law of thermodynamics, that cannot be accomplished without adding energy to the resource system. However, the difference between a pollutant and a resource can be viewed as a matter of entropy: a pollutant is a discarded resource that is so dispersed geographically or so contaminated chemically that its recovery may not be technologically or economically feasible. Although the amount of available energy appears to be a theoretical constraint on the usable resource base, energy costs at the present time contribute very little to the total cost of processing most resources. Most of the cost in current resource processing is actually material capital (such as drilling rigs, processing plants and distribution systems). Therefore, in the SSM model, the cost involved in converting resources to processed raw materials suitable for use are measured in terms of the fraction of industrial capital that must be allocated to obtain the resources required for the present level of industrial output. Here, every cost might added in an extension of this model but the entire energy question would probably be best modeled separately (making a distinction between energy resources and material resources).

If \( Q_t \) is the total world supply of nonrenewable resources, representing the sum of unknown and proven resources, then the possible usage rate of virgin materials over time \( U(t) \) is limited by

\[
\int U(t) \, dt \leq Q_T \quad (5.4)
\]

Where \( U(t) \) maybe measured in resource units per year. The integral may be very much less than \( Q_T \), since some part of \( Q_T \) may ultimately be uneconomic to use. This usage rate must both start and end at zero, taking some series of nonnegative values so that its integral is less than or equal to \( Q_T \). Here, the only physical constraint put on the usage rate is that expressed by equation (5.5). The representation of nonrenewable resources by a single level ignores the distinction between an unknown resource underground that has not been discovered and a proven reserve that has been located but has not been extracted and processed. The level of resources in the SSM must then represent the sum of unknown resources and proven reserves that can be tapped for use at some finite cost, (including discovery, extraction, processing, and distribution costs).

Indeed, the set of important environmental problems created by man is large and diverse. **Table 5.1** lists about 23 environmental problems in order of ascending gravity (Brubaker, 1972). The long-term behavior of some of these pollutants will be modeled explicitly in the SSM pollution sector. These persistent material pollutants include industrial and agricultural chemicals, radioactive isotopes, and heavy metals. The dynamic effects of persistent materials in the world system appear to be similar in several
important ways. Each is released through industrial or agricultural activity; the impact of each material on man or the ecosystem has already been proved adverse in local areas; each material has been dispersed around the globe; and each persists long enough to influence the components of the biosphere for years or decades once it is released into the environment. Thus, the impact of persistent, man-made pollutants on the global biosphere will depend on both the pollutants’ total level and the changing chemical compositions of that level overtime. It is certainly impossible to predict the mix in advance, especially since society has not yet identified all the components of the present stream of effluents that are persistent material pollutants. Because the mix of pollutants is so indeterminate, the pollution sector is restricted to an aggregated representation of the globe’s persistent pollution burden. An aggregated model of pollution cannot be used to make precise forecasts of the levels and impacts of specific materials, nor is it useful in describing the current “quality” of the environment. Instead, the purpose of the persistent pollution sector is to represent in general terms, the dynamic characteristics of the physical processes governing generation, transportation, concentration and assimilation of persistent, harmful materials that are released through agricultural and industrial activities. Here, the primary objective is to provide a conceptual dynamic structure that could capture the qualitative behavior of persistent pollutants in the global system. Consequently, the sector model addresses following important questions. If the material output and population continue to grow, what will be the global impact of future persistent material burdens on the behavior of other sectors in the system; can technological programs, initiated in response to perceived pollution levels, be implemented in time to avoid substantial damage from the presence of persistent materials; what effects on the ultimate global pollution level might be caused by various delays in society’s efforts to stop the increase in the generation of persistent pollutants after the level has passed some critical threshold; what could happen to pollution level if the natural pollution absorption mechanisms of the ecosystems were themselves degraded by pollution; and how sensitive is any estimate of future relative pollution levels to errors in assumptions about the magnitude of important delays and coefficients in the persistent pollution sector.

Indeed, the answers to these questions depend both on the underlying geological and biological characteristics of the global eco-system and the nature of future social goals, decisions and technological achievements. Although, they are not yet fully understood, the physical characteristics do, in theory, lend themselves to prediction. But there is no possibility of predicting long-term social responses with great accuracy. Heightened social concern, more stringent legislation, and improved technologies can be expected to influence the future location, level and composition of persistent pollution. Again, technological change may alleviate or exacerbate future pollution problems in ways that cannot currently be anticipated. Thus, we represent the physical determinants of pollution sector and test the future effects of
conceivable changes in social and technical policies through exogenous changes in the model’s structure and coefficients. However, four dynamic attributes appear to characterize nearly all known persistent pollutants. They are generated at increasing rates by industry and agriculture; their accumulated level in the global environment is increasing; there is a significant delay between the time they are released into the environment and the time their full effects on the ecosystem finally appear; and they are concentrated as they pass to higher tropic levels in terrestrial and aquatic food chains.

Essentially, the concept of pollution is intimately related to entropy and energy flows. One may therefore define a pollutant as a displaced natural resource whose entropy is so great that it can no longer be reclaimed economically. The entropy of a closed system will inevitably increase and we believe that the earth may be considered to be a closed system in so far as pollution is concerned. Thus, we assume in the persistent pollution sector that materials will be released to the environment through man’s industrial and agricultural activities; and the generation of pollution will tend to increase with growth in the physical scale of man’s activities, that the global biosphere has only a finite capacity to degrade, that is, to assimilate, persistent materials; that there is a delay between the time a persistent material is first released into the environment and the time its full effects are felt in the biosphere; and that the rate of assimilation of persistent materials is proportional to the quantity of such materials present in the environment.

However, the amount of pollution present in the ecosystem can be altered by changing the persistent pollution generation, appearance, or assimilation rate. The harm caused by changing the composition or the location of pollutants in the environment. Here, new technical capabilities can be expected to affect each of these factors in varying degrees, depending upon the mix of pollutants present. Any technology developed in response to observed environmental damage will presumably decrease the rate of generation, increase the transmission delay, and because the effective assimilation half-life. Consequently, in analyzing the persistent pollution sector if the model, there are, perhaps, effects of the possible results of different technological advices. Decreasing the amount pollution generated at any level of industrial and agricultural output would correspond to a change in production processes or to improve emission controls; increasing the delay between the time the pollution is generated and the time its full impact is felt in the biosphere could be brought about by transferring industrial operations to remote localities or by improving the storage facilities for nuclear and other wastes; increasing the rate at which the pollution is assimilated represents the impact of such measures as the oxygenation of waste bearing water or the substitution of shorter-lived chemicals for persistent pesticides; and reducing the effects of persistent pollution on land fertility or on the average life expectancy of the population, represents a decrease in the average toxicity of effluents.
Empirically, in the persistent pollution sector of SSM, we shall employ the following set of assumptions to interrelate the identified concepts. That persistent pollution is generated as a result of industrial and agricultural activities, heat, the greater the per capita use of nonrenewable resources by industry, the greater the pollution generated each year per capita, and the greater the persistent pollution generated per cultivated hectare per year; and that there is a delay between the time a persistent material is generated and the time its full impact is exerted on the biosphere and a transmission delay contains materials that have been generated but have not yet fully affected the biosphere, and as materials are transferred from the transmission delay to the level of accumulated pollution, they begin to affect plant and animal life; that the amount of accumulated pollution is determined by the integration of the difference between past rates of pollution appearance and pollution assimilation; that the amount of pollution assimilated per time period is directly proportional to the total accumulated level of pollution and inversely proportional to the assimilation half-life and materials destined to be assimilated before they affect the biosphere are simply not counted in the calculation of the pollution generation rate; and the assimilation half-life of the pollution may increase as the total level of pollution increases.

### TABLE 5.1 DEMOGRAPHIC AND MATERIAL GROWTHS: ASSOCIATED SPECTRUM OF ENVIRONMENTAL PROBLEMS.

<table>
<thead>
<tr>
<th>AMENITY CONSIDERATIONS</th>
<th>HUMAN HEALTH EFFECTS</th>
<th>HUMAN GENETIC AND REPRODUCTIVE EFFECTS</th>
<th>EFFECTS ON ECOLOGICAL SYSTEM AND THE EARTH’S LIFE SUPPORTIVE CAPACITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>LITTER</td>
<td>AIR POLLUTION COMBUSTION PRODUCTS</td>
<td>RADIOACTIVITY</td>
<td>HUMAN OCCUPANCY OF BIOSPACE</td>
</tr>
<tr>
<td>NOISE</td>
<td>WATER POLLUTION</td>
<td>PESTICIDES</td>
<td>OCEAN THREATS</td>
</tr>
<tr>
<td>ODOR</td>
<td>PATHOGENS NITRATES</td>
<td>INDUSTRIAL CHEMICALS</td>
<td>PESTICIDES</td>
</tr>
<tr>
<td>----------------------</td>
<td>--------------------</td>
<td>--------------------------------</td>
<td>---------------------</td>
</tr>
<tr>
<td>AIR VISIBILITY</td>
<td>INDUSTRIAL CHEMICALS</td>
<td>PESTICIDES (THROUGH FOOD CHAIN)</td>
<td>OIL</td>
</tr>
<tr>
<td>ASPECTS</td>
<td>RADIOACTIVITY</td>
<td>HEAVY METALS</td>
<td>OTHER CHEMICALS</td>
</tr>
<tr>
<td>WATER QUALITY,</td>
<td></td>
<td></td>
<td>EROSION</td>
</tr>
<tr>
<td>RECREATIONAL ASPECTS</td>
<td></td>
<td></td>
<td>FERTILIZERS AND</td>
</tr>
<tr>
<td>CITY, AESTHETIC</td>
<td></td>
<td></td>
<td>DAMAGE TO MINERAL</td>
</tr>
<tr>
<td>ASPECTS</td>
<td></td>
<td></td>
<td>CYCLING</td>
</tr>
<tr>
<td>CITY, CONVENIENCE</td>
<td></td>
<td></td>
<td>CO₂, ALBEDO, AND</td>
</tr>
<tr>
<td>AND EFFICIENCY</td>
<td></td>
<td></td>
<td>CLIMATE</td>
</tr>
<tr>
<td>ASPECTS</td>
<td></td>
<td></td>
<td>HEAT REJECTION</td>
</tr>
<tr>
<td>COUNTRY,</td>
<td></td>
<td></td>
<td>LOCAL ASPECT</td>
</tr>
<tr>
<td>AESTHETIC ASPECTS</td>
<td></td>
<td></td>
<td>AND GLOBAL ASPECT</td>
</tr>
<tr>
<td>ACCESS TO COUNTRY</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AND NATURE</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
6.0 SOCIAL SECURITY FRAMEWORK

Basically, policies that promote economic growth are central to poverty reduction, but social protection (SP) measures also have a role to play in reducing the vulnerability and protecting the welfare of the poor. Therefore, social protection interventions are “actions to assist individuals, households, and communities to better manage risk and provide support to the critical poor (word bank, 2000). Thus, a country’s policy framework on social protection will include a set of laws and regulations and a set of expenditure programs. Furthermore, private mechanisms (both market based and informal) provide important support there, these policies, programs and norms are combined to manage risks, that is, events that would harm a family’s welfare. Some risks, such as economic recession, harvest loss, natural disaster, and war; affect whole societies or large groups. On the other hand, illness of a family member, loss of the breadwinner’s job and crime, affects only individual households. Consequently risk management strategies should include actions to reduce the likelihood that certain risks will occur, thereby mitigating risk by reducing the negative consequences associated with an event, and help the poor cope with the residual effects of the shock so that they do not suffer irreversible negative effects some example of the social protections activates include labor-market interventions, Reisons social safety nets, child-labor reduction programs, Disability programs, Social funds, Private market transactions and informal arrangements.

Labor market interventions improve the ability of households to provide for themselves through work via the development of efficient and fair labor policies, active and passive labor market programs, and pre-and in-service training programs. Pensions help governments take of their older and aging populations by creating or improving private pension provisions, mandatory savings, and public old-age income support schemes. In this area, governments intervene heavily in both regulation and expenditure. Social safety nets provide income support and access to basic social services to the poorest population groups and those needing assistance after economic downturns, natural disasters, or household-specific adverse events that reduce income. Child-labor reduction programs promote the development of human capital and increase equity and education for all groups by designing comprehensive strategies for broadly based poverty reduction and craft appropriate legislation and programs specifically for child laborers to reduce the occurrence and mitigate the risks of harmful child labor. Disability programs help the disabled through community-based services, including family support (respite care, child care, counseling, home visiting, domestic violence counseling, and alcohol treatment and rehabilitation); support for people with disabilities (inclusive education, sheltered workshops, rehabilitation, and technical aids); help for the elderly (senior citizen centers and home visits); and out-of-home placements (foster care and adoption). Through agencies, channel grant founding to small-scale projects to meet their self-defined needs. Similarly, private market (transactions) can provide
insurance policies for health and physical assets, pension plans for retirement, and vehicles for saving in good times and for obtaining credit when needed. Again, informal arrangements support community or family members through informal insurance arrangements, Hence, arrangements can include marriage; children; mutual community support; savings or investment in human, physical, and real assets; and investment in social capital, such as rituals and reciprocal gift giving.

Essentially, promoting economic growth is necessary to reduce poverty. Thus, social protection programs assist in reducing poverty by reducing income savings, fostering long-term investment in human capital, and by compensating those who are affected by policy changes meant to promote growth. The poor are often the most likely to face risks of many sorts and compounding this, the poor have few assets with which to face such shocks, so a drop in their income is more likely to reduce them to unacceptable levels of welfare. Therefore, good social protection programs measures for the poor (especially in poor countries) cannot be considered a luxury. Social protection programs can help manage risks and facilitate poverty reduction but they require fiscal, administrative and policy resources that are limited in poor countries. It is therefore crucial for national authorities to be able to prioritize across their alternative options. To aid policymakers in choosing the right mix of social protection policies and programs to meet national goals, this paper proposes a four-step process. The first step consists of diagnosing the sources of poverty and vulnerability and considering whether social protection or non-social protection intervention are most appropriate to deal with them. The see and step gives guidance or evaluating the cost-effectiveness of individual social-protection interventions. The third step brings together the results of these diagnoses and information on budget considerations to inform the final choice of program mix, and suggests the criteria that might be used in selecting that mix. And the fourth step is to Devise a concrete plan to implement the strategy chosen in step three (World Bank, 2002).

Indeed, the first step in determining appropriate interventions is to identify vulnerable groups, the risks that they face, and the sources of their vulnerabilities. Here, the term “vulnerability” may mean variability in income or an indicator of welfare, even when the average level is satisfactory. It may also mean the likelihood that the indicator will pass below the defined acceptable threshold and fall into the range that signifies poverty or hunger. Various means can be used to identify the major sources of risk faced by the poor. One approach is to categorize the population into age groups, list the risks theoretically faced by each age group, marshal data on the basic indicators of each risk, and use those data to assess whether or not the potential problem represented by each risk should be a priority for attention. Another approach is to list all risks that have been prevalent in the country over a given period (say over the past five years) then relate each risk to the groups that are likely to be most vulnerable still another approach would be
to analyze the risks faced by those in different regions or with different sources of livelihood. Structural and transitory vulnerability are some of the sources of vulnerability and risk. The structural vulnerability are some of the sources of vulnerability and risk. The structural vulnerability include high levels of poverty, large numbers of extreme poor, and high levels of inequality; lack of access to basic services; seasonality of employment, income, or consumption needs; high levels of lawlessness and crime; geographic, gender or ethnic concentration of the poor; poor macroeconomic, labor and social policies; low asset levels and lack of asset portfolio diversification; low skill levels of labor force; structural unemployment (youth, women or graduates); limited social and family networks or limited flow of information; high levels of child labor; and permanent physical or mental disability. On the other hand, the transitory vulnerability include natural or weather-related (earthquakes, floods, droughts, hurricanes, or pests); economic downturn or crisis (recession, transition, inflation, wage arrears, changes in taxation or spending, decline in production in sectors from which workers are immobile job loss); war, conflict or violence (national, regional or individual); illness or injury (individual illness, epidemics, or temporary physical or mental disability; and life cycle events (effects on household income of old age, death of a household member, widowhood or family breakup or multiple births).

Once the sources of risks have been identified, each type of risk should be assessed for its severity, scope and types of effects and their expected frequency within the particular country contest. It is equally important to determine whether the identified risks affect specific individuals or households and are therefore idiosyncratic (such as non communicable illness, individual short-term unemployment and family breakup) or whether they affect whole regions or groups of households and are therefore covariate (such as drought, seasonal price volatility, war or financial crisis that affect an entire community at the same time). Risks also can be either single or repeated events (such as droughts or floods). Covariate, repeated or compounded shocks are typically more difficult to handle through informal means, and an appropriate response to catastrophic events may be long-term net transfers. In contrast, no catastrophic events that occur with high frequency but have no severe effects, such as transitory illness and temporarily unemployment, do not always require long-term net transfers to the affected household because the household may be able to cope in the short term using savings, loans, reciprocal gifts, or in some cases, private insurance. Thus, mapping risks and vulnerable groups requires the determination of the frequency of the risk (yearly or periodic drought or a rare economic crisis); severity and scope of the risk (household data can be used to identify the income sources and expenditure patterns of the poor and can be used together with qualitative rapid assessments or geographic information systems); the types of groups or individuals affected (is the risk limited to a particular group, such as women, men, those in certain regions or occupations, or minority groups,
or does it affect whole areas or individuals in a totally idiosyncratic manner; and the effects of the risk (on income, social interactions between groups and families i.e. social cohesion, and access to social services and other non-social protection risk management interventions such as microeconomic finance. Once vulnerable groups have been mapped against the types of risks they face, the results can be used to make a preliminary prioritization of the possible interventions. Here, some of the risks may not be inherent in the economy but rather may be the result of existing policies or programs such as inflation stemming from poor macroeconomic or fiscal policy. Table 6.1 provides an example of the type of mapping that can be conducted.

Once the may or sources of risk and vulnerability and the groups most affected by them have been identified, two questions should be answered: could changes in existing policies, laws, regulations or programs reduce vulnerability and poverty and should social protection interventions be used to address these difficulties and, if so, which interventions would be the most appropriate? Consequently, the decision to use social protection interventions or non-social protection interventions will depend on whether the primary objective is to reduce risk, mitigate risk, or facilitate coping with risk. Many of the options available according to these two typologies can be illustrated. In other words, the possible means to manage risks include risk reduction measures, risk mitigation measures and risk coping measures. These risk management are equally classified as outside.

**TABLE 6.1 VULNERABLE GROUPS/INTERVENTIONS: RISK MAPPING**

<table>
<thead>
<tr>
<th>A/S/N</th>
<th>B RISK</th>
<th>C RISK INDICATOR</th>
<th>D INCOME LOSS</th>
<th>E DURATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1)</td>
<td>ECONOMIC CRISIS</td>
<td>Gross domestic product (GDP), growth rate, exchange</td>
<td>Unemployment rate, decline in wage</td>
<td>Number of months</td>
</tr>
<tr>
<td></td>
<td></td>
<td>rate, trade statistics, business failures</td>
<td>rate</td>
<td></td>
</tr>
<tr>
<td>(2)</td>
<td>POOR RAINS</td>
<td>RAINFALL, TIMING</td>
<td>INCOME OR PROXY (HARVEST, YIELDS)</td>
<td>SEASON</td>
</tr>
<tr>
<td>(3)</td>
<td>LAND SLIDE</td>
<td>NUMBER AFFECTED</td>
<td>LOSS OF LIFE, LIVELIHOOD, PROPERTY</td>
<td></td>
</tr>
<tr>
<td>(4)</td>
<td>ILLNESS MORBIDITY RATES</td>
<td>MORBIDITY RATES</td>
<td>COST OF TREATMENT, OPPORTUNITY COST</td>
<td>ACUTE VERSUS CHRONIC</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>OF CAREGIVERS' TIME</td>
<td></td>
</tr>
<tr>
<td>(5)</td>
<td>RETIREMENT</td>
<td>LABOR FORCE STATISTICS</td>
<td>INCOME</td>
<td>PERMANENT</td>
</tr>
<tr>
<td>F NUMBERS AFFECTED</td>
<td>G GROPS MOST AFFECTED</td>
<td>H NON-SP REMEDIES</td>
<td>I SP REMEDIES</td>
<td></td>
</tr>
<tr>
<td>---------------------</td>
<td>------------------------</td>
<td>-------------------</td>
<td>--------------</td>
<td></td>
</tr>
<tr>
<td>Numbers of persons by sectors, regions</td>
<td>Workers in most-affected sectors</td>
<td>Macroeconomics finance trade policies</td>
<td>Unemployment insurance active labor-market programs, safety nets</td>
<td></td>
</tr>
<tr>
<td>NUMBERS PERSONS OF REGIONS, SECTORS</td>
<td>RAIN-FED FRAMERS, THEIR SUPPLIERS BUYERS</td>
<td>IRRIGATION CROP CHOICES AGRICULTURAL INPUTS FOR NEXT SEASON</td>
<td>LABOR-INTENSIVE PUBLIC WORKS, NUTRITION PROGRAMS</td>
<td></td>
</tr>
<tr>
<td>NUMBER PERSONS OF LOCATION</td>
<td>RESIDENTS IN AFFECTED AREAS</td>
<td>LAND-USE REGULATIONS INSURANCE/SAVINGS</td>
<td>SAFETY NETS</td>
<td></td>
</tr>
<tr>
<td>NUMBER PERSONS OF CHILDREN THE ELDERLY HIGH-RISKS GROUPS</td>
<td>HEALTH CARE DELIVERY SYSTEM HEALTH INSURANCE</td>
<td>NUTRITION PROGRAMS FOR ZERO-TO-FIVE-YEAR OLDS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NUMBER PERSONS OF THE ELDERLY ESPECIALLY FROM FORMAL SECTOR; THOSE WITHOUT FAMILY</td>
<td>SAVINGS VEHICLES LABOR-MARKET THAT FACILITATES PART-TIME EMPLOYMENT</td>
<td>PENSION SYSTEM</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Social protection measures or social protection risk protection measures. Here, the outside social protection risk reduction measures include macroeconomic policies; public health, education, agricultural and environmental policies; resources allocation (human and financial) for providing quality basic social services to the poor; provision of essential infrastructure; regulated and supervised financial sectors; institutions and judicial systems; proper feeding and weaning practices; HIV prevention programs and asset accumulation (law, livestock financial). The outside social production risk mitigation measures include more formal kinds of portfolio diversification; asset transfers; development of savings mechanisms for the poor and vulnerable; micro credit scheme access; property rights protection; provision of legal services that preempt the need for other SP programs by ensuring the provision of or improvement in key laws such as those pertaining to property rights and gender-neutral in heritance, and family law that prevents women and children from being left destitute by desertion divorce or death. The outside social protection risk coping measures include selling real or financial assets; borrowing from neighbors or banks; and migration.
On the other hand, the social protection risk reduction measures include measures to reduce risks of unemployment or underemployment and inadequate earnings; standards to ensure basic health and safety at work; appropriate disability policies to support inclusion of persons with disabilities; measures to reduce harmful child labor; measures against discrimination in employment; vocational education and training programs that support human capital investment; some community-level interventions through social funds, such as preventive health care and the accumulation of social capital through strengthening structures for community action; and infrastructure produced through public works. Again, the social protection risk mitigation measures include insurance programs for unemployment, old age, disability, survivorship, and sickness; pension systems appropriate to and effective in the country context; market-based and informal community schemes that aim to reduce risk; support for the development of strong levels of community social capital; some types of social fund interventions, such as income diversification through micro enterprise credit and access to education and training; public works during seasons of slack labor demand to reduce seasonal variability of income. Similarly, the social protection risk coping measures include formal transfers or social assistance; disaster relief programs; price subsidies (for food); public works as means to transfer income after a shock; and informal intercommunity transfers or charity. Here, if the risk or vulnerability is structural, risk reduction or prevention efforts will in most cases be the most appropriate course of action. Risk reduction efforts tend to fall more into the realm of policy than program-style intervention, and many key elements of these efforts also fall outside the scope of social protection of those within the scope of social protection many are in the form of labor-market regulation and programming. Risk mitigation strategies in many instances may also be best dealt with by using interventions outside. Social protection, such as efforts to help diversify the “portfolio” (physical, financial, human and social capital assets) of the poor to cushion shocks. Again, risk-coping mechanisms that relieve the impact of shocks once they have occurred are essential to protect against unacceptable levels of poverty. And many risk-coping mechanisms require support from social protection interventions, although others do not.

However, in deciding the blame between social protection and non-social protection interventions, one should carefully consider the following factors. Interventions that promote widespread poverty reduction should always have high priority. If poverty is more structural than transitory, interventions to deal with the structural aspects, which are usually non-social protection interventions, should have priority. Groups that are not benefiting from general economic growth may need special social protection programs can also be expected to reduce poverty both directly, through reducing vulnerability to income savings and preventing irreversible losses and indirectly by broadly contributing to social cohesion and sound policy choices. Yet, the best mix of policies and interventions in any given circumstance will
depend on the context of macroeconomic policies, fiscal constraints, and competing budget priorities; the institutional capacity to design and implement; and political economy considerations. Unfortunately, there is little international consensus on social protection indicators. But the list of identified potential indicators may be a useful set from which countries can choose to monitor their progress in improving the lives of vulnerable groups. Here, the specific indicators chosen by a particular country will depend both on what is pertinent to measure (kinds of risk, groups that are most vulnerable, kinds of programs present) and realities of what data are available. In most cases, it will be advisable to gather data on indicators in each of the following three categories: risk exposure, vulnerability mechanisms and outcomes. The indicators of exposure to risk and vulnerability include frequency of national or regional susceptibility to specific natural or weather related shocks; index of Chronic or transitory macroeconomic distress or poor macroeconomic performance (country policy institutional assessment-type indicator); percentage of population affected by war, violence, crime, or ethnic or class tensions; prevalence of communicable diseases, such as AIDS, and alcoholism and drug addiction; percentage of disable persons; percentage of single heads of household or divorce rates; percentage of orphans; percentage of elderly people; and percentage of widows. The indicators for mechanisms to deal with risk and vulnerability include qualitative evaluation of effectiveness, efficiency, and coverage of country’s social protection system (poor, fair, good, excellent); percentage of poor and nonpoor covered by social protection programs and average levels of benefits, overall and by program (coverage and incidence); public and private expenditures on different social protection (or social protection-related) programs; percentage of (poor) households receiving transfers (formal or informal) and average transfer amount; percentage of (poor) households with savings accounts, and average size of savings; percentage of (poor) households with multiple sources of income (farm/nonfarm, multiple jobs); and percentage of (poor) farmers using irrigation or planting several different crops. The indicators of outcomes include poverty headcount and depth, if possible disaggregated by rural/urban population and, ideally, by different potentially vulnerable groups, including the elderly and widows; levels of chronic versus transient poverty (again disaggregated even approximately, for different, potentially vulnerable groups); prevalence of seasonal hunger; distress sales of livestock or land; child malnutrition rates; unemployment rates and estimates of underemployment, capturing the level of formalization or in formalization in the labor-market (by age and gender); primary school dropout rate (for boys and girls); incidence of child labor (percentage of children who work, based on age and gender); hours worked by children; labor-market situation for vulnerable groups (youth, women); and estimated percentage of children or families left vulnerable or destitute as a result of communicable diseases
(indicators for AIDS, such as might include the number of infected, number of
infirmities, and estimated number of orphans).

The second step includes checklists that policy makers can use
to determine the effectiveness of interventions for labor-market regulations,
contribution-financed social insurance programs, and publicly financed safety
net expenditure programs. Conventionally, data from several sources would
be available for this purpose, and these include budget and administrative
statistics, expert opinion of official and informed critics of the interventions,
feedback from clients, in the form of beneficiary assessments or client-
satisfaction surveys, household survey data to reveal targeting outcomes, and
sophisticated analysis of survey data to quantify program impacts. In
assessing interventions, policy makers should consider all the important and
pertinent policy, legal, and regulatory frameworks and publicly funded
programs and private market-based or informal arrangements that provide
social risk management. Interventions may be operated out of various
institutions such as ministries of labor, social security, education, health,
housing public service and transport. Here, state and local interventions may
be important and they may dwarf national or federal interventions in some
sectors and countries. Equally, NGO’s or large donors sponsor programs
outside government that are important parts of the social protection system
should be included in the overview.

The interventions under listed are typical of those found in many
countries. Not every country will have all of these interventions and
fragmentation may result in programs that are too small to accomplish much,
and several interventions on this list are usually not cost effective. This is
meant merely as a checklist to help the policy makers ensure that it has all of
the relevant pieces of the puzzle. The public programs and policies include
food-for-work or labor-intensive public works. Social funds, agricultural input
subsidies (prices or vouchers); energy subsided, food price subsidies, housing
subsidies, food rations; food stamps; school feeding programs; school fee
waivers or scholarships; family assistance; employment legislation, including
hiring and firing rules (including severance), contracting for labor, minimum
wages, etc; unemployment assistance; Job search assistance; unemployment
insurance; Job retraining programs; integrated savings accounts, Health
insurance; Needs-based cash social, social assistance; old age insurance,
disability insurance and survivors insurance; non contributory person
programs; and regulatory framework for private pension programs. The
market-based risk management mechanisms include savings or credit from
commercial outlets or nongovernmental organizations (NGOs); crop
insurance; property insurance; private pension’s plans; and private insurance
for health, disability and life. The informal safety nets or transfers include
exchange of labor (for farming, construction, etc) between households;
transfer of cash, food and livestock between households; child fostering;
reliance on children; Dis-saving (selling assets, livestock farm equipment,
jewelry, savings-drawing down); migration; tied labor; sharecropping and
By allocating labor to its most efficient use in the economy and encouraging employment and human capital investment, well functioning labor-market can contribute to long term economic growth and poverty reduction. Similarly, sound labor-market policies and programs can reduce the risks associated with unemployment, lost income, and poor working conditions, and can help workers manage these risks when they do occur. Thus, a labor-market policy framework includes both regulations and programs. Yet, labor-market programs, such as unemployment benefits and training programs can be evaluated like other social protection programs in terms of cost-effectiveness. However, it is generally not possible to do the same in the case of labor regulations, such as rules governing hiring and firing and anti discrimination regulations. To evaluate labor regulations, policymakers need to answer the following three fundamental questions. What regulatory interventions would be appropriate; what would be the impact of interventions, including their enforcement on the following of the labor-market; and what would be the impact of interventions on workers (especially in poor workers). It is very difficult to attach a value to the benefits or costs of many labor regulations and the challenge is complicated further by the fact that the key issue is not simply the regulations themselves but how they are enforced. While it may not be easy to answer these questions either definitively or quantitatively, the following steps may be undertaken in an attempt to understand the labor-market; assess the role of regulations; evaluate the costs and benefits of labor regulations and assess options.

Basically, one approach to protecting individuals against the risk of old age, disability, death of a family member, sickness, maternity, unemployment, or work injury is through the use of social insurance programs. These programs mitigate such risks by providing a source of income should the individual encounter one of these problems individuals contribute to the program while working, often with the employer, and in a few cases the government, making additional contributions. Sometimes funds are accumulated over time, but typically these are insufficient to cover the full expected future payments to insured workers. Thus, a basic first step in evaluating a social insurance system is to determine what percentage of the working-age population contributes to the system and what percentage of the vulnerable population including the elderly, widows, and disabled, receives benefits. Should the program be broad based budgetary support from the government might be justified as poverty reducing. For example, the United States social security system, has a redistributive benefit structure and broad coverage, and is often credited as the nation’s most effective poverty reduction program. Consequently, in doing such as evaluation the analyst should consider both current and future coverage trends. However, coverage rates among the working-age population are falling as people join the private sector, and evasion of contributory obligations is becoming easier; and in

savings or insurance associations or societies such as roscas, tontines, and burial societies.
some cases, participation is now voluntary. This suggests that coverage rate among the vulnerable will be lower in the future and therefore that budgetary support may not be justified in the long-term. Assuming that social insurance coverage is limited, as is typically the case in developing countries, the criteria used for evaluation include fiscal sustainability; adequacy of benefits; avoidance of crowding out; avoidance of regressive redistribution; and avoidance of vulnerability-raising incentives.

In analyzing the effectiveness of expenditure programs, there are essentially three aspects: poverty objectives, outcomes or impacts, and cost effectiveness in delivering the observed outcomes. Here, there are two main questions to answer when analyzing the Outcome of a poverty intervention: Is the intervention helping to meet the poverty objective and have there been changes in the indicator towards the desired objective that can be reasonably attributed to the program? Again, the question included in the cost-effectiveness of social protection program were originally developed to evaluate public expenditure programs, but most can be applied to the analysis of labor regulations and of contribution based social insurance programs. The question checklist include sustainability targeting performance; administrative costs; institutional structure; in entire effects’ and constraints, indeed, after carrying out the analysis suggested above, the policy makes team should have an idea of the strengths and weaknesses of each if the important social protection interventions in the country.

Basically, the aim of step three (adjusting the mix of intervention as needed) is to help identify the combinations of interventions likely to be most effective in meeting poverty reduction objectives within a country’s fixed and administrative capacity. The information needed to do this includes the diagnosis of the general character of poverty in the country and the appropriate types of public actions to reduce poverty under those as derived in step one; the assessment of the cost effectiveness of individual interventions as in step two; judgments about the potential of different interventions and in formation on budget envelopes. Using this information, the policy makers’ teams can construct a list of likely interventions to address the existing social protection gaps and needs. Thus, the next step is to prioritize the potential interventions and determine the implications for existing programs or policies. This exercise will result in one or more proposals for more appropriate mix of social protection interventions. Again these proposals may differ from the status give in one or more of the following ways. They may change the budget envelope for social protection interventions; modify existing interventions to make then more effective to change their purpose; include new interventions; and replace or remove existing interventions entirely. Essentially, the policy maker's teams will have to make their own informed judgment about the relative cost-effectiveness of different public actions for poverty reduction, considering both social protection and non-social protection interventions and the appropriate budget
envelope from survival protection interventions. A number of tools are available to help in this direction. The international labor organizations social budget model provides a computer-based tool to help work through how changes in one sort of social protection mechanism may affect the need or budget for another. Similarly, the simulation tool kit (PROST) includes a tool for judging how different parameters in the pensions system will affect costs and outcomes.

In developing working proposals for the “best”, set of social protection interventions in a country policy makers team must keep firmly in mind the reality if limited budgets and administrative capacity. Sometimes, these require harsh trader’s fits between social protections and other poverty reduction interventions such as transport or educations; and within social protection, between SP programs interceded to reduce or cope with risk and those that affect different target groups. The situation is further complicated and reform difficult when poorly designed or badly functioning social insurance programs already exist consequently, in developing program and budget proposals, the political economy of change deserves particular attention. The Team must ask if there are groups or stakeholders who stand to either gain or lose from changes that are designed to make the interventions more cost effective. What are the potential forms of cost that can be associated with these groups or stakeholders? Will compensating these groups ensure the political viability of the reform or the sustainability of the program or policy? What is the least costly way to compensate these groups? Is these any public support or political will for the program or policy? Policymakers must also consider whether any proposed change to the existing mix of programs would be limited by the same constraints and pit falls that existing programs face. Should policymakers find that the existing social protection programs are the best that can be in the country? Further attempts at reducing poverty would necessarily have to focus on non-social protection programs and policies, the fundamental criterion should be the impact poverty. However, good estimates of this effect may not be available before decisions on the changes must be made, obliging instead a fall back to other criteria that can be expected to contribute to poverty reduction.

Finally, the purpose of an action plan (step four) is to ensure that medium-term and long-run goals are accomplished by making sure that the immediate and intermediate steps are taken. At a minimum, the plans should include details on the steps required to get from the status quo to the goal; the resources required; the timetable; and who is responsible for each action. It may also be useful to include other factors, such as how stakeholders will be consulted and indicators to monitor progress. In fact many of the issues that must be addressed in developing an action plan for the social protection sector are generic to action planning generally often however; the plan will need to be developed iteratively. It can be useful in detail the administrative resources required (personal, training, equipment, processes). Though their financial cost may be small relative to the benefits to be distributed in the
program, it may take significant lead time to make them available. Identifying the specific needs makes it possible to see what measures are required to meet them and what phrasing of the whole program is possible. Thus, a time table is important to help decision makes and task teams visualize how all the action will come together. It is therefore useful to specify in the time table which action can proceed in parallel and which must be in sequence; specifying who is responsible for each action can be particularly important for social protection strategies, because social protection interventions are carried out by so many actors. It is especially worth noting that donor agencies have a large role in some safety net programs and that they may have to take some actions to bring about the desired reforms. Consequently the assignment of responsibility in the action plan is meant to ensure that each and every action is carried out with none omitted because the parties involved are unaware of their responsibilities. It may also reveal the complexity of the process or highlight potential synergies. In general, comprehensive social protection programs include public works; social funds; agricultural input programs; energy subsidies; general food-price subsidies; housing subsidies; supplemental feeding programs; food stamp programs; school feeding programs (SFPS); scholarships or fee waivers for schooling; unemployment benefits; severance pay; wage subsidies Job-search assistance (JS3); Training and retraining programs; micro-enterprise development assistance (MEDA); fee waiving in health care; Health insurance, Need-based Cash transfer (social assistance); mandatory contributory scheme for old age, death, and disability; Disability inclusion programs; spiritual deliverance; and family allowances. Not only, informal transfers involve transfers or exchange between household of cash, food, clothing, informal, wars, and assistance with work or child care. Depending on the size of the transfer, informal transfers can affect household income and consumption, investments in human capital, the fertility rate, and individual’s savings and wealth. They can also transmit patterns of inequality across generations and interact with social protection programs. Indeed, these transfers present a challenge to the effective design of public programs that is different from the challenge presented by transfer programs of non-governmental organizations or private firms. Again, in estimating cost-effectiveness, analysis of public programs should include crowding out as an additional cost. The costs of crowding out are higher where public safety net programs are crowding out well-functioning informal transfers or where public program undermine existing informal systems of self-help while encouraging a culture of dependency among the poor.

Empirically, the federal government of Nigeria through National identity management commission (NIMC) embarked on the implementation of a National Identity Management System. The Government’s primary objective to expand extends and enhances existing identity infrastructure in order to establish a reliable, secure and sealable identity every individual in the country. Government plans to establish a National Identity Database (NID),
redesign and create an identity verification process infrastructure and thereafter introduce chip-based General Multi-purpose Cards (GMPN) that will enhance the process of government and faster the development of a sustainable consumer credit system. This initiative is based on a public private partnership (PPP) model comprising of identity management solution providers, Financiers/ operators and the NIMC. Here, the government has already gone through a selection process to identity firm(s) / Consortia as ‘Front End service providers that will partner with NIMC under the PPP arrangement to build and operate identity Registration Centers (IRC’s), produce the GMP cards and deploy card acceptance Devices (CAD) under a concession arrangement for a period of ten years. Following government’s decision on the implementation strategy and the appointment of ‘Front End service providers, the NIMC invited eligible system integration service eligible system integration service providers with proven track record of successful performance in similar capacity to partner with the commissions specifically on the redesign, development and management of a reliable, scaleable and secure back-end solution for the identity management system in the country. This back-en solution must harmonize and integrate systems, data and processes of key stakeholder agencies and ‘Front End service providers involved in the capture, processing and permission of identity related data in the country. Basically, the identity firms were required to facilitate the integration of people, processes and technology. The re-design of existing enrollment process including upgrade of registration hardware, software, and firmware; and develop detail implementation plans for the front-end, back-end, stakeholder agencies and identity points of use of the system, Enhance the current back-end system to enable a seamless generation unique National identification Numbers and incorporation of smart and personalization and encoding. Expand the existing infrastructure and information system to incorporate disaster recovery, fault tolerance and business continuity. Harmonize existing identity process and systems across key public and private organizations involves in collection, processing validation and storage of identity relation information. Upgrade and extend identity Management infrastructure, systems and processes to the key stakeholders in public and private sectors to support identity verification, authentication and validation processes; develop identity management procedures and standards f ro devices, processes and identity related systems across all sectors; build capacities, skills and competencies for operational support and maintenance of key components of the identity management infrastructure; and manage, operate and maintain the back-end management infrastructure.

Critically, this system will augment the benefit of the national census project. It will give room for social protection, database and dynamic planning in such a way that sustainable development is guaranteed (with equity).
7.0 POLICY REFORMS.

Basically, risks can be defined by the level at which they occur (Micro, Meso, and Macro) and by the nature of the event (natural, economic, political, etc). Micro shocks, often referred to as idiosyncratic affect specific individuals or households. Meso shocks strike groups of households or an entire community or village and these shocks are common (or covariant) to all households in the group. Shocks can also occur at the national or international level. The extent to which a risk is covariant or idiosyncratic depends considerably on the underlying causes. Thus, knowing the source of shocks is important for preventing them, but identifying the source is not always easy. But how a shock is transmitted to households is greatly affected by a country’s institutions. That is, the effect of a disaster depends on how well the government functions; whether there is peace or civil strife; how well the safety net and other institutions include the poor, etc. However, the above typology can be defined by distinguishing the severity and frequency of shocks; and severity can range from catastrophic to a minor.

As traditionally defined and measured, poverty is a static concept (a snapshot in time). But insecurity and vulnerability are dynamic (as they describe the response to changes over time). Insecurity is exposure to risk; vulnerability, the resulting possibility of a decline in well-being. The event triggering the decline is often referred to as a shock, which can affect an individual (illness or death), a community, a region, or even a nation (such as natural disaster or macro-economic crisis). Here, risk refers to uncertain events that can damage well being and the uncertainty can pertain to the timing or the magnitude of the event. Risk exposure measures the probability that a certain risk will occur. Vulnerability measures the resilience against a shock, that is, the likelihood that a shock will result in a decline in well-being. In other words, vulnerability is primarily a function of a household’s asset endowment and insurance mechanisms and of the characteristics (security, frequency) of the shock. One measure of the vulnerability of the poor and near-poor is how often a household falls below the poverty line. Another approach is to define long-term poverty as average long-term consumption below the poverty line and then to ask how much of measured poverty is transitory. This approach implicitly considers the duration and depth of transitions into and out of poverty. Again, vulnerability is multi-dimensional, and poor households face manifold risks, so variations in income and consumption can occur for a variety of reasons.

For poor people, dealing successfully with the range of risks they are exposed to is often a matter of life or death. To manage risks, households and communities rely on both formal and informal strategies (World Bank, 2001; Holzmann and Jorgensen, 2000). Here, informal strategies include arrangements that involve individuals or households or such groups as communities or villages. Formal arrangements include market-based activities.
and publicly provided mechanisms. Informal and formal strategies are not independent: public policies and the availability of formal mechanisms heavily influence how extensively informal arrangements are used and which kinds are used. Risk management strategies can be further classified as risk reduction and mitigation measures (action in anticipation of a shock) and coping measures (actions in response to a shock). Here, risk reduction aims at reducing the probability of a shock or negative fluctuation. Individuals or households can sometimes take such action themselves. But to reduce most risks effectively, action is also needed at the Meso or macro level. Risk mitigation aims at reducing the impact of shocks and households mitigate risk through diversification and insurance. Households can take most of these actions on their own; though group or government actions can sometimes facilitate diversification. Coping strategies aim to relieve the impact of a shock after it occurs. Actions by individuals include drawing down savings or selling assets, borrowing and calling on support networks while actions by government include activating the transfers or work fare mechanisms that constitute the social safety net.

Participation is the process by which stake holder's influence and share control over priority setting, policymaking, resource allocations, and program implementation. To achieve participatory outcomes at the macroeconomic level, it is necessary to use participatory approaches at both the microeconomic and macroeconomic levels in a complementary manner for maximum effect. This approach implies an outcome oriented participation action plan; a public information strategy and multi-stake holder institutional arrangements for governance. **Figure 7.1** shows how the various stakeholders can interact with governments to affect processes at the macroeconomic level (World Bank, 2002). Essentially, there are several guiding principles for participation that lead to more inclusive and equitable processes for formulating, implementing and monitoring poverty reduction strategies. Over time, it has been found that processes that have the following characteristics can lead to effective participation. These include country ownership, outcome orientation, inclusion, transparency, sustainability, and continuous improvement.

However, diagnosing the quality of governance arrangements is crucial to determining practical and sustainable strategies for tackling poverty. Governance therefore, refers broadly to the exercise of power through a country’s economic, social, and political institutions in which institutions represent the organizational rules and routines; formal laws; and informal norms that together shape the incentives of public policymakers, overseers, and providers of public services. This is often referred to as the rule of the game there; the three key dimensions include the process by which governments are selected, held accountable, monitored, and replaced; the capacity of governments to manage resources efficiently and to formulate, implement, and enforce sound policies and regulations; and respect for institutions that govern economic and social interactions.
### TABLE 7.1 MANAGING RISKS MECHANISMS.

<table>
<thead>
<tr>
<th>OBJECTIVES</th>
<th>INFORMAL MECHANISMS</th>
<th>FORMAL MECHANISMS</th>
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<tr>
<td>INDIVIDUAL AND HOUSEHOLD</td>
<td>GROUP BASED</td>
<td>MARKET BASED</td>
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<tr>
<td>REDUCING RISK</td>
<td>PREVENTING HEALTH PRACTICES</td>
<td>COLLECTIVE ACTION FOR INFRASTRUCTURE, Dikes, Terraces Common Property Resource Management</td>
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<td>MIGRATION</td>
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<td>MORE SECURE</td>
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<td></td>
<td>INCOME SOURCES</td>
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<td>SOUN MACROECONOMIC POLICY</td>
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<td>ENVIRONMENTAL POLICY</td>
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<td>EDUCATIONAL AND TRAINING POLICY</td>
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<td>PUBLIC HEALTH POLICY</td>
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<td>INFRASTRUCTURE (DAMS, ROADS)</td>
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<td>ACTIVE LABOR MARKET POLICIES</td>
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<td>MITIGATING RISK</td>
<td>CROP AND PLOT DIVERSIFICATION</td>
<td>OCCUPATIONAL ASSOCIATIONS</td>
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<td>(DIVERSIFICATION)</td>
<td>INCOME SOURCE</td>
<td>ROTATING SAVINGS AND CREDIT ASSOCIATIONS</td>
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<td>DIVERSIFICATION</td>
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<td>INVESTMENT IN PHYSICAL AND HUMAN CAPITAL</td>
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<td>INVESTMENT IN SOCIAL CAPITAL (NETWORKS, ASSOCIATIONS, RITUALS, RECIPROCAL GIFT GIVING)</td>
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<td>MARRIAGE AND EXTENDED FAMILY SHARE CROPPER</td>
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<td>SAVINGS ACCOUNTS IN FINANCIAL INSTITUTIONS MICROFINANCE</td>
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<td>COPING WITH SHOCKS</td>
<td>SALE OF ASSETS</td>
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<td>LOANS FROM MONEY LENDERS</td>
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<td>CHILD LABOR</td>
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<td>REDUCED FOOD CONSUMPTION</td>
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<td>SEASONAL OR TEMPORARY MIGRATION</td>
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<td>TRANSFERS FROM NETWORKS OF MUTUAL SUPPORT</td>
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<td>SALE OF FINANCIAL ASSETS LOANS FROM FINANCIAL INSTITUTIONS</td>
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<td>SOCIAL FUNDS</td>
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<td>CASH TRANSFERS</td>
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Indeed, problems of poverty and governance are inextricably linked. If power is abused, or exercised in weak or improper ways, those with the least power (the poor) are most likely to suffer. Weak governance compromises the delivery of services and benefits to those who need them most; the influence of powerful interest groups biases policies, programs, and spending away
from the poor; and lack of property rights, police protection, and legal services disadvantage the poor and inhibit them from securing their homes and other assets and operating businesses. Thus, poor governance generates and reinforces poverty and subverts efforts to reduce it. Therefore, strengthening governance is an essential precondition to improving the lives of the poor. Yet, good governance can be undermined by a range of factors, including lack of transparency, weak accountability, poor organization and lack of technical capacity, lack of responsiveness, inefficiency, and poor motivation. Hence, an understanding of the specific costs imposed on the poor by weak governance is needed in order to design realistic action plans for dealing with it.

If the demand for reform is strong, but organizational and technical capacity is weak, technocratic reforms can be helpful. These could include support to links between policy and budgeting, civil service development and training, development of legislative and judicial functions, and organizational and functional reforms. But a diagnosis of the underlying drivers of poor governance may reveal that many of the actors involved have an interest in its continuation and little incentive to make reforms work.

**FIGURE 7.1 GOVERNMENT PROCESSES PARTICIPATION.**

<table>
<thead>
<tr>
<th>STAKEHOLDER GROUPS</th>
<th>PARTICIPATORY INTERACTIONS</th>
<th>GOVERNMENT PROCESSES</th>
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<tbody>
<tr>
<td>GENERAL PUBLIC</td>
<td>FORMULATING SPS ASSESSMENT</td>
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<tr>
<td>POOR AND VULNERABLE</td>
<td>DESIGN</td>
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<td>GROUPS</td>
<td>IMPLEMENTING SPS</td>
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<tr>
<td>ORGANIZED CIVIL SOCIETY</td>
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<tr>
<td>PRIVATE SECTOR</td>
<td>sector Reviews</td>
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<td>GOVERNMENT</td>
<td>Local Planning</td>
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<tr>
<td>REPRESENTATIVE</td>
<td>Resource allocation</td>
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<tr>
<td>ASSEMBLIES/PARLIAMENT</td>
<td>program implementation</td>
<td></td>
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<tr>
<td>DONORS</td>
<td>MONITORING SPS</td>
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</table>

**MECHANISMS OF PARTICIPATION**
- Information dissemination
- Participatory research such as perceptions of the poor consultations: informal and structured
- Formation of committees and working groups
- Integration with political processes
- Donor involvement

**NOTE:** SPS means Social Protection Strategy.
If demand for reform is compromised by vested interest, the ownership and effectiveness of technical remedies are likely to be weak. As a result, both domestic funds and external assistance may largely be wasted on technocratic reforms. However, these incentive issues can be tackled once the nature of dysfunction is understood and set within the broader environment, including the degree to which the society as a whole operates according to formal rules or through informal networks. The extent to which information is available and people can be held accountable for their actions is critical to any chance of improving governance. Again, an understanding of what has gone before and of the current set of institutional arrangements, will both constrain and help to define viable next steps. Essentially, governance is a broad topic that can reasonably include consideration of the way institutions work in areas ranging from human rights (through legal systems and human resource management) to details of social and military spending. In order to connect broad concerns about how power is exercised through economic, social and political institutions with the specific steps that can be taken to reduce poverty; we relate the four key elements of the poverty framework to corresponding governance reforms. These poverty dimensions include empowering the poor; improving coverage, efficiency and sustainability of basic services; increasing access to markets; and providing security from economic shocks and from corruption, crime violence.

Specifically, accountability and transparency provide strong incentives for good governance and they are essential characteristics of well-functioning institutions and good public sector performance. Their existence is closely linked to the architecture of the state, which defines the relationships among the Executive, Legislature, and Judiciary; and the extent to which they are able to scrutinize each other’s behavior. Also, accountability and transparency depend on other institutional arrangements for the transfer of power between governments (including voting arrangements and electoral laws).

Consequently, there are formal governance arrangements that support this architecture. The first arrangement comprises electoral rules that mandate regular and fair competition between sectors of political office. The second requires inclusive arrangements for the exercise of power that offer the protection of the law to all citizens and that can be guaranteed by an independent judiciary. Parliamentary oversight mechanisms such as independent audit institutions are also critical for fiduciary accountability. Deficiencies in any of these arrangements undermine the fairness and effectiveness of the state and directly or indirectly penalize the poor. Here, the ability to call state officials and public employees to account is fundamental. Typically, people must account for their policies and actions, as well as for their use of funds (financial accountability). Employees must be accountable to the superiors within the executive; the executive as a whole must be accountable to the electorate and to the other main institutions of the state. However, holding government (the executive) accountable rest on two basic foundations. Firstly, there must be some bodies or groups to which
the executive answers; and secondly, in situations where certain executive actions are questionable, then legislative, judicial, or electoral challenges should be possible. Failing these, popular challenges have sometimes been successful but should only be a last resort. Horizontal accountability concerns relationships between the executive and the other main institutions of the state (legislature and judiciary) while vertical accountability refers to relationships in which one actor must report to another. Depending on constitutional arrangements, sub-national governments may be seen either as subordinated or as having equivalent rights to central governments. These accountability relationships are equally reinforced by informal checks executed by civil society as well as by donors (in some circumstances). These relationships are illustrated in figure 7.2 (World Bank, 2002).

Indeed, constituencies and political will for reforms are essential. Rarely will they be fully developed at the start, but the strategy should aim to build them along the way. To find an entry point and get the process started, there needs to be at least one source of commitment, whether from a civil society group; a legislative, judicial, or government body; or a political party. Here, the nature of constituency will influence what can be done first. If there are only a few stakeholders, the initial work will be limited and it is all the more important to design it so as to appeal to broader interests. Certain kinds of institutional strengthening, especially those that enhance available information, are critical to help organizational leadership understand and cope with problems. They also provide a means of combating corruption. Once the reforms needed have been clarified, it is important to bridge the gap between external stakeholders and the executive (or legislature or judiciary, depending on the laws of reform). Pressure from outside may be an essential ingredient to initiate the process, but progress will be limited unless the executive or other state entity is clear about what is needed and how to deliver it, and has
the capacity to do so. Alternatively, reforms may be led from within, in which case those on the inside should communicate their purposes and invite public debate and monitoring of results. In building a strategy; it may be helpful to reflect on some main factors and characteristics of the country’s institutional environment that will strongly shape the possibilities for effective institutional and policy reforms and the sequencing of reforms. Here, the three important factors include political commitment, political feasibility, and sustainability. However, the benefits of reform must outweigh the costs and meeting all three conditions does not guarantee that a reform will succeed, but it does indicate a higher probability of success.

Perhaps. The most important point for sustainability is the match between the design of reforms and the environment in which they must take not if they are to be effective. It is important to understand the workings of the rules in the society, the extent of informality, the role of informal networks, and the way in which power and influence are exercised if reforms are to be relevant to their institutional context. Strategies therefore must start with feasible steps that lead by their internal logic, and by the public and other support they generate, toward long-term sustainable reforms that help the poor.
8.0 CONCLUSION.

Indeed, labour markets are different from markets for commodities. The wages they set and the employment conditions they determine profoundly affect the quality of life of workers and their families. Nearly all governments set workplace standards, such as minimum wages and special protections for working women and minorities. However, standards differ in their objectives. Some aim at protecting vulnerable workers and eliminating injustices, while others aim at helping the market work better. Yet, not all legislated standards achieve their objectives. Consequently, some end up protecting a group of relatively well-off workers at the cost of limiting employment in the modern sector. In other words, sharp drops in income from work can have a profound impact on the living standards of workers and their families. Governments therefore have to work with the legacies of past policies and development structures. Workers have to live with the opportunities at hand and these are molded by the structure of the economies and societies in which they live and by the capabilities formed by their personal histories. But for both governments and workers, that is just the starting point, and both are agents of change. Good choices by governments (in the domestic and international scene) can lead to advances in the living standards of all groups of workers in the world and help bring back into the fold those who are unable to keep up or adjust on their own. That is, if international conditions are favorable and governments do their part to create the right environment, workers will be able to make the job choices, negotiate the conditions of work, and make the schooling decisions for their children that will improve the welfare of all groups of workers. Subsequently, that could begin to reverse the long-run trend of widening international inequality between workers that has been so marked a feature of the past century, and being new hope and opportunities to millions of people currently trapped in poverty. In other words, when this happens, a truly global golden age in 21st century would be set in motion.

In this regard, donors still underestimate how difficult it is to influence reform without undercutting domestic accountabilities. Too aware of failures in the key relationships of accountability in recipient countries, donors often bypass them. This can produce good isolated projects, but it can also weaken the aid recipient’s internal systems and accountability relationships. Therefore, donors need to pay more attention to the problems in influencing service reform in recipient countries. They should strengthen the critical relationships among policymakers, providers, and clients. In circumventing those relationships, they can undermine the delivery of services. They should also support recipient institutions by evaluating innovations systematically, by harmonizing and realigning their financial assistance and knowledge transfers with the recipient’s service delivery and by focusing on outcomes and results. In good country environments where there are genuine reformers, donors
should also integrate their support in the recipient’s development strategy, budget, and service delivery system. In low-income countries, coming out of conflict or with weak institutions, donor’s should support urgent social and other services while identifying mechanisms that build transparent public institutions in the longer term. Definitely, pooling of aid will reduce transaction costs. Yet for social protection reform to succeed, donors have to attach an even higher priority to aid effectives and development outcomes.

Specifically, for newly developing economies, there is no such thing as a “natural next step”, uniform blue point or optimal system in developing formal social security programs. Rather, social security systems should be tailor made, adapted to the social structure and labour market in each country, social security systems may also combine elements of the insurance concept and the redistribution concept. In other words, the system will always have to be based partly on solidarity, especially with respect to the poor, who should receive an above subsistence income guarantee. On the other hand, the system should contain enough incentives to avoid moral hazard and free rider behavior. It is essential that incentives in the system encourage, not discourage labour participation. Again, the redistribution inherent in social security systems is bound to diminish income inequality. Because of the trade off between equity and efficiency, this may hamper economic growth. Differently, social security, owing to its irrigation function, can also foster economic growth because it allows the unemployed to search for good and productive job matches. Hence the design of a social security system should seek a balance between the negative equity-efficiency trade-off and social security is irrigation function. However, policymakers should not over direct the initial design of the social security system toward provision of benefits. The mere availability of these benefits can evoke a supply effect strengthened by the negative wedge spiral; individuals’ entitlement to social security benefits causes a negative externality for the employed, because they must pay higher social security premium. Yet, in the midst of globalization and torrential social change, emerging social security system needs to adopted new strategies and raise budget allocations to enhance programs, benefits levels and coverage.

Indeed, it is a true fact that we are not wrestling against flesh and blood; but against principalities and powers, rulers of the world of this darkness and spirits of wickedness in the high places. Consequently, it is our prayer that the reader will find some merit in this paper and that all will successfully combat against the devil and grow ever closer to their own angel guardians. In this way, global protection, peace and prosperity are assured.
REFERENCES


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