RISKS AND DISASTERS IN NIGERIA’S PETROCAPITALISTIC OIL AND GAS INDUSTRY: A PLURALISTIC THEORETICAL-CONCEPTUAL FRAMEWORK

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ABSTRACT.- Risks and disasters in Nigeria's petrocapitalistic oil and gas industry: a pluralistic theoretical-conceptual framework. Nigeria’s petrocapitalistic society adds more adversities-promoting conditions to existing thinking about the risk society, claiming that risks pervade minds of the global society. Here, we examine risk’s meaning, susceptibility factors (including environmental, materialistic, and socio-cultural specifics) and selected disasters to justify the proposal of a pluralistic theoretical-conceptual perspective for framing risk research programme in Nigeria. It is suggested that an expanded risk research programme is required for contributing more knowledge on the subject towards risk policy integration to those of sustainable development in Nigeria.

Key words: risk, Nigeria, petro-capitalism, sustainable development, society, economy, environment,

1. Introduction

While making the following statement might read rather pessimistic, or even unpleasant, it must be recalled that in risk discourses of this kind; the quest and need for objectivity demands that things be described the way they ought to be presented. In this case, it is true that many forms of risk succinctly define perspectives that geographers suggest are required for viewing large swathes of spatial and temporal dimensions required for examining any risk society: In this case with particular reference to the West African country, Nigeria (Gregory, Johnston, Pratt, Watts and Whatmore, 2009: 657-8). With regards to fulfilling the spatial requirement, Nigeria’s entire national territory -covering an area of 909,890

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square kilometers (Nigeria, 2006a), this country’s possession of huge potentials for achieving socio-economic development has been widely documented. However, the historical restrictive over-reliance on earnings from export of crude petroleum oil - since commercially viable deposits of the so-called “Black Gold” were discovered in the late 1950s for investing in development programmes within it - poses serious economic viability risks. More recently, export of natural gas occurring naturally in association with the former has also become exportable but only after nearly half a century of wasteful and risk generating flaring (i.e. deleterious burning off). The foregoing introduction of the discovery of petroleum oil (and natural gas) over 50 years ago serves to fulfill the temporal requirement for conceptualizing and examining Nigeria and the associated economy, politics and environment as matching those defining this particular risk society. However, in this conceptualization of a peculiar risk society, we remain subscribers to the concept’s initial lowest common denominators (characteristics) as defined by sociologist, Ulrich Beck in the mid-1980s to the 1990s (e.g. Beck 1992). However, there will be exceptions in certain conceptual categorizations of risks in Nigeria’s society such as rather than emphasizing risks associated with technology as arising from nuclear power and cognate aspects, we shall be more emphatic about oil and gas, and similar considerations. There is another aspect of the spatial dimension to clarify at this outset. Apart from oil and gas export earnings sustaining a large proportion of Nigeria’s entire economy, and society, to the extent that a peculiar and special brand of political economy of fossil-fuel economy derogatorily described as petro-capitalism has been elaborated (see Ingwe, 2013a), a sub-category of space outstands in the south-central part of Nigeria: the Niger Delta, which bears about 95 per cent of the deposits of oil and gas (Central Bank of Nigeria, 2009; Odularo, 2008). This sub-national space outstands not only for the sheer quantum of hydrocarbons that it bears but also because of the enormous brunt of ecological adversities that it has borne for the century and half that oil production has lasted (and less prolonged, in the case of natural gas). While the emphasis on societal dimension places the concern of sociology with risks (as illustrated by Beck’s pioneering role in this aspect of scholarship), geography’s concern with space generally, and the deleterious impacts of technologies for mining among other applications on the ecological system or the environment, in particular has been acknowledged through various contributions (e.g. Beck, Giddens, Lash, 1994; Beck, 1995; cited in: Gregory et al, 2009: 658).

2. Defining Risk

This term is used in a technical sense to describe the probability of occurrence of a known event, i.e. either beneficial or damaging. The informed or sensible determination, prediction and mapping of both outcomes of risk, be they
beneficial or damaging, is assumed in such probabilities. It strives towards knowledge building about the world consistent with modernity, and its quest for rationality and controllability. Despite the latter’s intolerance of indeterminacy and uncertainty, these adversities persist due to complexity of social, material and geographical characteristics of things (phenomena, events, etc.) hampers risk identification and computation. Computation of risk probability requires identification of pathways to its occurrence. Risk computation demands technical knowledge of calculation and understanding of socio-institutional inter-relationships prevailing in a risky condition/scenario. The latter is conventionally done by monitoring risk pathways by a public regulating organization. Risk identification and computation are challenged by both their elusive nature (difficulty in imagining likelihood of risk and its transition to disaster/benefits), and frequent ignorance/incompetence/inexperience of regulatory agency workers responsible for monitoring their pathways. This makes risk computation and controllability rather difficult and highly contestable exercises as have become the cases of pervasive risk everywhere, everyday, and in everymind considering recent anthropological and sociological works (Gregory et al, 2009: 657-8).

3. Information/knowledge gaps in the sub-field of risk in Nigeria, CRADLE’s risk management programme/initiative and this study

There is a paucity of programmes aimed towards addressing risk management in Nigeria. This is a strange situation considering the enormity of disasters and the multifarious risk factors in the country. However, it is heartening that the Centre for Research and Action on Developing Locales, Regions and Environment (CRADLE), based-out in the risk-prone coastal city of Calabar, south-eastern Nigeria, recently founded the Centre for Risk Studies, Programming and Management (CRISP) with the goal of assisting risk-prone and disaster susceptible communities within and without the country. As part of CRADLE’s programme, the present authors manage a programme of studies or academic research comprising a plan for undertaking future studies for which a research agenda for expanding risk assessment in Nigeria’s oil/gas industry as well as other sectors of the economy, society and environment would be formulated shortly. Both missions –that of CRADLE and the present authors- are ambitious, and consider the enormity of risk factors in Nigeria. Therefore, this article forms a foundation for future risk studies programme of CRADLE aimed at furthering the project of understanding the nature, magnitude, and dimensions of risks in Nigeria’s environment, society and economy. The present interim contribution therefore focuses on an aspect of the economy (oil and gas industry in the context of the conventional economic management system regarded to be petro-capitalistic.
The need for expanding the current capacity for addressing the rather pervasive risk prevailing in the wide gamut of activities, environments, and economic management system could be appreciated. Therefore, we consider it profitable to the entire risk management programme to propose pathways for investigating and reporting challenging conditions or factors of the oil/gas that pose risks to the Nigerian society by type/scale.

**Objectives and organisation**

The general objective of this first part of the two-part study/article is to contribute towards understanding risks associated with Nigeria’s oil/gas industry, environment, society, economy. In the rest of this article, we shall present materials aimed towards achieving the following specific objectives of the study. We begin by clarifying the key concept: risk. We do this by elaboration briefly various aspects of conditions perceived as constituting risk to society and its constituent populations. After this clarification, we proceed towards identifying various sources of risk in Nigeria’s oil/gas industry. We follow on by providing a theoretical-conceptual framework for understanding risks in Nigeria’s oil/gas industry. Finally, we conclude this paper by summarizing its major points.

**4. Identifying, classifying aspects of oil/gas industry risks**

Various aspects of Nigeria’s oil and gas industry present different kinds of risk, various dimensions of the risks—including nature, magnitude, distribution—have been poorly understood. As pointed out in the literature, identification of risks is one of the basic steps required for better understanding them as a prelude towards managing their degeneration into disastrous occurrences, coping with or containing their damaging and/or beneficial impacts/outcomes. While some of the risks could be understood and represented by following their association with various facets of the oil/gas industry production, distribution, and consumption stages of the industry, others might lend themselves to comprehension through the manifold aspects of the Man-Environment inter-relationships. That constitutes one of the keystones of geographic (spatial) analysis. It is in this regard that the greater emphasis on the impacts of oil/gas production on the environment of the Niger Delta (host of the oil/gas deposits) ought to be appreciated. In this connection, the United Nations Environment Programme (UNEP) Report of a recent study of oil/gas activities in the Niger Delta’s Ogoniland informs us about the enormous ecological devastation caused by oil producing companies—especially by the Shell Petroleum Development Company, SPDC, since it discovered large hydrocarbon deposits since the late 1950s (UNEP, 2011). The nature of oil and gas exploitation (including production) and use of its earnings since its discovery in the late 1950s has been pervaded by gross inappropriateness (non-trasparency, theft, corruption,
waste, among others) tantamount to petrocapitalism (Gregory et al, 2013). Specific aspects of the perpetration of thievery of earnings from oil and gas by elite dominating Nigeria’s successive post-independent administrations has been documented in annotated and scattered forms mostly in the popular literature and scantily in the academic literature. More recently, geographers have recorded their interest in the way this petro-capitalism reflects in the sub-national economic management of Nigeria’s 36 states (Ingwe, 2013b). At this juncture, we turn towards fitting theoretical perspective for exploring various facets of risk in the context of sustainable development in Nigeria –i.e. explanatory ideas that cover the programme’s socio-economic and environmental dimensions. To do this, we present -in the following section, reviews of the literature on pluralism theory by sociologists, geographers and political scientists.

5. Pluralism theory

5.1. Geographers’ perspectives

Owing to the myriad schools of thought and their associated differences in viewpoints, pluralism as a theoretical perspective has been variously defined in human geography. In clarifying this point, geographer David Ley, suggests that the concept has been more specifically applied to diverse societies resulting from (and affected by multiple adversities inflicted European imposed colonial rule on countries that are currently within the Tropical belt. Although this socio-economic and geographical classification is likely to be associated with most European colonized states world-wide, its first application by JS Furnival (in 1948) was aimed towards studying and understanding how such stratified settings were expressed in East Asian societies. Here, it was thought that the size or degree of social, economic, and political power possessed -and used- by each of the existing human groups was inversely proportional to its population size. Furnival contends that society contrived by European colonial rule reflected distinctions that are recognizable in the creation and foisting of strata of marginalized populations. One example of the suppressed populations is the labourers, refring to human class characterized by survival on sales –actually involving under-pricing- of their labour power as the last resort for eking out a living under enormous constraints frequently manifesting in the labourers compulsion by the exploiting capitalist class to a life dependent upon reception of low wages for their own survival and reproduction of labouring offspring. Separate from this labouring class was another constituted by the indigenous population characterized by better socio-economic conditions including higher income compared to the labourers. Another class was the Merchant class: some originating from Asia; others were European elites -most likely the minority who held the greatest power available. Furnival’s method/approach of study was easily extended by MG Smith (1969), facilitated by
The influences of social geographers (Clarke, Ley, and Peach, 1984)’s studies and support to also understand the scenarios in Africa. The latter including Furnival’s studies of the Caribbean Islands (Gregory et al, 2008), confirmed the proposition that colonial rule might have enforced or imposed on its Tropical victims similar socio-economic conditions almost universally within its spheres of influence. Credited with accomplishing the honourable position of one of the most influential interpreters of the theory of plural societies, Smith defines them as units possessing disparate components and characteristics (Eriksen, 2002).

The second meaning of the concept (Pluralism) refers to social diversity. This latter use does not necessarily imply division of societies under discussion along lines of cultural (ethnic) grouping, in social/cultural geography, anthropology, and cultural studies. Under certain circumstances —as were cases in some European states, the aim of management of diverse human populations was to achieve social harmony and/or cohesion among cultural groups exhibiting disparity predominated discussion and action/policy in the context of multiculturalism (Amin, 2004). It is believed that assimilation could over time constitute a potent force for altering feelings of discrimination by diverse people.

The third meaning of pluralism has been with reference to the mobility of power among various interest groups constituting modern democracies. Conflicts are perceived/believed, in such social environments, to be dynamic (or temporary occurrences) —contrasted to structural features of relationships among groups and their membership. Elections are considered to be the major arbitration instruments for pragmatically resolving conflicts. This viewpoint is credited to the works of Robert Dahl (1963), who challenged existing proposition that the elite permanently prevail over other strata of society. However, this (Dahl’s) thesis is regarded as an optimistic proposition that political relationships among interest groups — possessing diametrically opposing and/or disparate interests — are almost always contain internal self-checking and self-balancing mechanisms for their own resolution. The thesis, as commonly the case with its counterparts in the social sciences, has been challenged. Therefore, the counter (growth coalition thesis) representing findings from studies of urban phenomena have confirmed the validity of the elite thesis thus relegating Dahl’s claims to the background (Jonas and Wilson, 1999) (Ley in Gregory, Johnston, Pratt, Watts and Whatmore, 2009: 543). While politics was not listed earlier when the social, economic and environmental dimensions of risk were mentioned, we know that it (politics) must not be excluded in any discourse of the affairs of the state, in any part/region of the world. As would become evident in the following section, ideas contributed by political scientists to the theoretical-conceptualisation of pluralism promises to add value to the quest for understanding the subject-matter.
5.2. Pluralism as perceived by political scientists

Political scientists view pluralism as a theory concerned with causation involving diverse influences and/or factors that determine the occurrence of phenomena. In what immediately follows here, we show some connotations of the use of pluralism.

(a) As a view of behavior. Some radical opinions in politics and philosophy argue that Marxist materialist monism, a belief in the multiplicity of factors, led to considerable opposition to this approach as well as the law-determined interpretation of the development of society. Pluralism has also been extended to connote a doctrine pertaining to the diversity of cultural, ideological, radical, national, class, gender, among other societal characteristics;

(b) It has also been used in connotation with contradiction associated with class theory and to challenge state-centrism arising from pressure involving diverse factors within the political environment at different levels: nationally, sub-nationally and/or internationally.

(c) A more balanced position, taken here in this study, is one that views pluralism theory as encompassing all the perspectives reviewed in the foregoing and applied as an alternative to the Marxist class perspective. This has been applied for analyzing domestic politics and international political systems. Apart from providing a framework or doctrine for waging opposition to Marxism, this conception of pluralism theory provided an alternative for understanding the multiplicity of factors that actually exist in society thereby presenting the latter with dynamism of varying degrees depending on the strength or capability of the person analyzing it and aiming to resolve its challenges.

It has been suggested that the division of society into social classes and the flourishing of modern electoral democracy, accepted by several revolutionaries before the “cold war” illustrates the relevance of pluralism in advancing society. During the “cold war” era pluralism was frequently applied by the opposing schools of thought to absolutise their own “truths” (Igwe, 2005). Political scientist, Lincoln Allison, suggests that Pluralism has been used in philosophical theories and systems of thought that appreciate influences i.e. involving more than one ultimate principle contrasted to those exhibiting “monist” characteristics. In the United States of America, pluralism was employed for legitimizing and/or rationalizing the nation’s constitution by various ethno-cultural groups (African Americans, Jewish Americans, Indian Americans, among others) instead of resorting to occasional delusive optimism that such ethnic diversity would disappear if allowed to be own its own by evading the associated challenges. Pluralism has also been used to literally refer to belief in the coexistence of more than one entity, belief system, points of view, among other things. Pluralism’s contemporary meaning refers to the formation of modern society by diverse cultural, among other groups constituting societies’ major political essence. It is
argued that in contrast to the nearly historical dominance of society by the elite (ruling class), the pluralism of groups facilitates horizontal distinction of society is viewed by some as more beneficial important than the hierarchical type. The elites are known to either ignore and/or manipulate various constituents of society such as communities, villages, trade unions, Churches, Religious groups and so forth (Scott and Marshall, 2005).

5.3. Pluralism in sociological and other disciplines

In the 1970s, some sociologists undertook a dissent against what they perceived as an unnecessarily prolonged hegemony of positivist orthodoxy foisted by some elite in the discipline to the detriment of the subject and its scholars. The latter involved championing the use of only one approach to social research thereby stifling the discipline’s advancement. This charge or rebellion was founded on a unified philosophy and methodology of social sciences capable of enthroning a kind of dictatorship in research within sociology. Some of the works identified as representing the hegemonic positivist orthodoxy or enforcing methodological exclusiveness were those of two eminent sociologists. First, Talcott Parsons, a notable sociologist credited with developing theories of functionalism and second, the author of “abstracted empiricism”, Paul Lazarsfeld. Prominent in the dissent was the works of Paul Feyerabend entitled “Against Method”, expressing concerns of these rebels with respect to Talcott Parson’s exposition of functionalism. This included: (The Social System; Towards a General Theory of Action –a collaboration with Edward Shills; 1951); Societies: Evolutionary and Comparative Perspectives, 1966; and The System of Modern Societies 1971). The works of Paul F. Lazarsfeld include: The People’s Choice: How the Voter makes up His Mind in the Presidential Campaign - with Bernard Berelson and Hazel Gaudet, 1988); –being a revised edition of the original edition of 1944); Personal Influence: The Part Played by People in the Flow of Mass Communication -with Elihu Katz, 1955). The foregoing reflected Lazarsfeld’s interests in promoting survey research and theories of the middle range: These made critics’ association of him with “abstracted empiricism” somewhat unjustified.

In proposing to change that situation that the dissenters viewed as undesirable, the latter camp promoted an approach that they felt allowed greater diversity or flexibility, in terms of academic styles and methods of study. What some call epistemological anarchy (i.e. application of various research methods and theories) in sociological research was advocated as a means of salvaging sociology from the prevailing tyrannical positivist orthodoxy that the dissenters perceived at the time. Phenomenological and structuralist sociologies are the major academic research themes that were fabricated from this crusading project. As part of this mission, Marxism was split into neo-Marxist factions while philosophical relativism was also invented. As a way of describing and categorizing these
(sub)disciplinary fragments, terms such as epistemological pluralism or epistemological anomie were devised to describe the multiplicity of theories of knowledge or paradigms that competed with what were perceived by the dissenters as positivist orthodoxy in sociological studies. The fabrication of this sociological pluralism was justified by arguing that since natural scientists frequently alter their research methods when they considered such necessary, rather than unnecessarily enslaving themselves by sticking to existing -but ineffective theoretical conceptualizations and methods; sociologists were beholden to emulate such academic adventures for the “good” of the discipline.

**Did the dissenters go unchallenged?**

The claims of these “rebels” of sociology about the hegemony -in form of positivist orthodoxy within the discipline was debunked by an opposing assertion that the desired methodological pluralism that the dissenters were seeking for had been in existence prior to their rebellion of the 1970s. To substantiate this call to academic order, these “critics of critics” cited previous application of diverse philosophical and/or methodological alternatives in sociology. They pointed out that a few of them included: Marxism, idealism, symbolic interactionism, among others (Scott and Marshall, 2005).

**6. How pluralism theoretical perspectives fits into the quest for understanding risks in Nigeria’s oil/gas industry and the Niger Delta**

The relevance of Pluralism theory for studying risk generating factors in Nigeria generally and the Niger Delta, in particular, could be justified by several reasons only a few of which will be considered here. Without getting caught in repetition, it deserves reiteration that the pioneering studies previously undertaken based on the application of the theoretical-conceptual framework of pluralism were former colonies of European countries in Africa, Asia and the rest of the conquered worlds. The view that pluralism reflects the existence of a multiplicity of factors (economic, social, environmental, political, psychological), in real life, makes the theory amenable to adoption in studies of national risk-generation in a multi-cultural and multi-religious country such as Nigeria that possesses as many as 400 ethno-linguistic groups (Nigeria, 2006). Being a country that was under the shackles of British colonial rule, and yet to overcome the strangleholds of imperialism and neoliberalism, Nigeria presents the conditions resembling closely those of the rest of Africa that formed the previous study areas. Moreover, the social stratification by social, economic as well as environmental sectors such as the various classes (labourers, merchants, elite, among others) are conspicuously present and have been earlier identified and documented in the Nigerian society.
The allowance given by Nigeria’s regulatory frameworks to the elite to operate unhindered is an enormous risk-generating factor considering that huge sums—running into several billions of US Dollars—in public fund stolen by a growing population of them translates into adversities for the masses (Nigeria’s citizens) who are increasingly pauperized, driven out into homelessness, unemployment/underemployment, socio-economic vices, crimes, among other extremes. Consider that in representing the expected gains from investment of about US$3 billion attracted over three years into Cross River State, functionaries of the State Government state that these investments pose the risks of generating for people of: over 50,000 direct and indirect jobs; creation of over 10,000 Small Scale Enterprises; as well as increasing the State government’s internally generated revenue (Cross River Watch, 2013). While these investments arising from abroad are being hailed, Nigerian elite in connivance with foreign banks are taking out of the country billions of US Dollars for stashing away in coded bank accounts as have reportedly been many cases. From dictators IB Babangida, the late Abacha, Abdulsalami Abubakar, to most of the 36 governors under the administrations of Obasanjo, Yar’Adua/Jonathan and the ongoing Jonathan (from 1999 – the present, 2013).

The risk-generation potential of this thievery is reflected in the reports that follow. Surveys of the 1990s and 2000s reveal that as much as about 70.2 percent and 90.8 percent of the nation’s population lived on less than US$1 per day and US$2 per day respectively (WRI et al, 2005, Ingwe, 2009). The inequality in risk exposure is exposed by Nigeria’s ranking on the socio-economic scales has been poor: Its human development index (where the most developed country was represented as “1”) was only 0.47.

Although, it seems unnecessary to segment the theoretical framework by the specific disciplinary specialization, the foregoing aspects should/would be best addressed by the sociological aspects. Additionally, the diversity of socio-cultural groups mentioned with regards to the political science contributions to the theory is relevant to the Nigerian scenario where the diversity compares with the intensity found in the USA, if not even greater. Sociologists, geographers and political scientist unanimously acknowledge the role played by ethnicity and/or the use of cultural/ethnic group membership into almost all calculations of contributions to development and benefiting/sharing outputs of development constitutes the bane of nation-building in Nigeria (Otite, 1990; Oyovbaire, 2000; Eteng, 2008; Ingwe, 2013). This ethnic factor or consideration ensures that, to a great extent, most risk-generating political decisions in post-colonial—including post-independent Nigeria. Strong ethnic feelings have been evident throughout the practice of ethnic politics in pre-independence and post-independence Nigeria. The country’s pre-independence revenue allocation formula was fixed in the ration of 50:50 for each of the three—and later four sub-national regions, the ethnic consideration was

194
responsible for shifting the sharing formula from one focusing on sub-national regional resource base being various agricultural produce. This comprised export-based plantations and small-scale farms as follows for: palm oil, rubber, etc., in the south-eastern Region; plantations cultivating cocoa in south-western Region; and famous pyramids of harvested and bagged groundnut, and cotton in the Northern Region. Ethnicity is responsible for the reckless and unplanned shift from the latter effective and efficient regional economic framework into the unnecessary centralization of economic management revolving around the federal tier of government centering on earnings from the export of crude oil and natural gas extracted from the Niger Delta. The risks associated with the poor governance of these environmental resources are enormous, and was reflected in the violent youth militancy of the late 1990s and early 2000s.

Apart from determining Nigeria’s post-independent revenue allocation formulae, ethnicity underlay the stifling of the actualization of series of Reports resulting of all statutory bodies (such as Commissions, Committees, etc.), established by successive central/federal governments that consistently recommended the urgency and imperativeness of addressing the special development requirements of the oil-rich Niger Delta. These procrastinations preceded the installation of Niger Delta Development Commission; itself preceded by the insurgency or youth militancy of the late 1990s and early 2000s, and the Ibrahim B. Babangida dictatorship’s Oil Minerals Producing Communities’ Development Commission (OMPADEC) of the 198s to the early 1990s.

Ethnicity explains the penchant to claim majority positions based on unsubstantiated and spurious projections and manipulation of population sizes by certain cultural groups –as a strategy of requesting ever increasing shares of benefits from the federal resource pools since the 1950s (?). Ethnic rivalry was the major factor behind the disastrous attempt by the Ibo cultural group to secede from the federation by declaring their founding of a new state (Biafra) thereby causing the 30-month long Biafra-Nigeria civil war between 1967 and 1970. Perhaps, the most serious risk-generating factor of the ongoing era is the waging of another war by the Boko Haram, a northern Nigerian Islamic sect characterized by Islamic religious fundamentalism aimed at spread Islam across the multi-religious areas and groups in Nigeria and the tacit certainty of resistance to such fundamentalism has prompted several predictions of disintegration of the current union of cultural nationalities constituting Nigeria. In this regard, pundits have predicted that Nigeria may break into six or so different countries.

**Conclusion**

The pluralistic theoretical-conceptual perspective of framing risk research has been proposed as suitable in the context of pervasive risk scenarios and
frequency of disasters -amid limited risk studies programs in Nigeria. Selected environmental, material, and socio-economic scenarios of Nigeria have also been presented to confirm the relevance of the proposed theory of pluralism. This provides a good foundation for formulating an agenda for expanded risk (and maybe disaster) research programme for Nigeria. The implication of the foregoing and proposed studies for sustainable development policy is the need to consider both the beneficial as well as damaging outcomes of risk-disaster-prosperity spectrum as requisites for the conventional development planning/management programmes.

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REFERENCES


21. Ingwe, R. (2013b), Road infrastructure development in Nigeria: comparing scenarios in Nigeria’s six geopolitical zones with reference to the South-South zone (Research article under processing by International J of Infrastructure Studies).


34. Oyovbaire, Sam. 2000. *Civil society and democracy: Theoretical Perspectives*: In: Okon