

GLOBAL ECOLOGY DISASTER RISK VULNERABILITY: COMMUNITY EDUCATION AGENDA FOR COMMUNITY DEVELOPMENT IN SUB-SAHARAN AFRICA

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ABSTARCT

This study shows how ecology disaster risk vulnerability is addressed to achieve community development. It adopts the humanistic approach which looks beyond environmental challenges to embrace social and economic considerations. The humanistic perspective seeks to build a more cohesive society than merely combating ecological disasters. This is against, the study reveals that to tackle vulnerability to ecology disasters, social and educational engagements are required. The importance of governance lies in promoting the rule of law, citizens' rights of access to information, public participation and equal access to justice. Success involves effective planning.

Keywords: Global, Ecology, Disaster, Risk Vulnerability, Community Education, Agenda, Community Development, Sub-Saharan Africa.

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INTRODUCTION

Global ecological disasters have ceased to be the strange-once in a blue moon phenomenon, often interpreted by communities as the wrath of deities, for the failing to fulfill their spiritual roles. Scientists have discovered that it is a part of the social and economic systems. Africa Sub-Saharan the is most vulnerable to ecology disaster risk. There have been significant occurrences of flood, drought, insufficient rains and significant loss of agricultural lands, depletion of water and deforestation (Todaro & Smith, 2009). These have consequences for the wellbeing of communities, because their livelihoods depend wholly on natural resources.

International conferences after another have largely concerned with environmental challenges. There is need for considerations that go beyond environment to include social and economic issues. This is aimed at building cohesive societies where individual freedoms, such as civil, political, social and economic rights are guaranteed. According to the council of Europe

(2002) human rights reflect sustainable development and cannot thrive in the absence of social justice, or rule of law and equity. These objectives require the active involvement of external agencies in the community

Community education has the goal to build the autonomy of local communities as well as their source of responsibility. It can address the challenges confronting their economies, culture and society. It can promote coexistence, tolerance and the informed and creative engagement of citizens in their communities, so that they have the capacity to take control over their lives and society, now and in future. The relevance of community education is that it attaches importance to environment, home and ethos.

CONCEPTUAL CLARIFICATION

Ecological Disaster

Ecological disasters are consequences of human actions which may be rational or irrational. Disasters have socio-economic undertone. Impact of disasters varies among groups in the society based on economic status, gender, ethnicity and age. Ranal (2009) defines Ecological disaster as “any situation in which the damage to people, property or society in general are sufficient and recovery or rehabilitation is a longed involved process”.

Similarly, the International Strategy for Disaster Reduction Geneva, 2001 cited in Idris, Ladan and Halilu, (2015) defines disaster as “a serious disruption of the functioning of society, causing widespread human, material or environmental losses which exceed the ability of affected society to cope using only its own resources”.

Global Warming and Ecological Disasters

Global warming is the major source of ecological disasters. Global Warming is the result of emissions or atmospheric concentrations of carbon dioxide, methane and nitroxide. Oyegun (2007) explains the actual occurrences leading to global warming as follows:

These radioactive gases allow incoming solar-radiation to pass through them to the land-ocean surface of the earth which absorbs the insulation and converts it into infrared long wave radiation. These gasses absorb infrared radiation and re-radiate the lower atmosphere with the heat while preventing same from being lost to the outer space (p. 52).

According to Oyegun (2007) carbon dioxide concentrations has progressively increased since the dawn of the industrial revolution. Such increases in carbon dioxide combined with the other gases lead to high temperature or global warming. The effect of this on the environment include more severe heat, hurricanes, floods from heavy rains, prolonged droughts, losses of valuable species and crop and fishing losses, reduced summer rivers flow and water shortages; decreased grain fields; climate-induced spreading ranges of pests and disease; lost and contaminated ground water; deteriorated fresh water lakes, reefs, and coastal flooding (Todaro & Smith, 2009). It may also lead to lose of essential species, traditional sources of energy, etc.

Climate Change in Africa

Climate change had been a source of many worries in Africa. Africa experiences the worst impacts of climate change, such as drought, insufficiency of rains and soil degradation desertification and significant loss of agricultural lands as well as depletion of water and widespread deforestation (YoussaUfou, 1986). This affects agricultural productivity, yield potential, areas suitable for agriculture and the length of growing seasons, leading to food and water shortages as well as increased malaria attack.

Modern climate change in Africa is largely traced to human activities specially “the sharp rise in the amounts of greenhouse gases (CO₂) and methane (CH₄) into the atmosphere” through fossil fuel combustion. (Oyegun, 2007). Domestic usage of fossil fuel has increased in many African countries, with increased industrial activities and the number of cars imported into the continent. Slater, Sharp and Wiggins, (2008) indicate climate change will affect food supply and access. Agricultural yields are expected to decrease, even in areas with less significant climate change, if crops are closer to their maximum temperature tolerance. Yields could also decrease as a result of decreased amount of rainfall (Slater, Sharp, & Wiggms, 2008).

International Concern for the Ecosystem

There had been notable efforts on the part of the international community to curtail the impact of ecological disasters. Conferences had been held at both regional and global levels. The most ubiquitous is the United Nations Conference on Environment and Development (UNCED) held in Reo de Janerio in April, 1992. This meeting of the UNCED was designed to formulate a number of voluntary frameworks and legally binding conventions for Nation States to ensure more sustainable global development (Pelling, 2008). The conference delegates were drawn from 176 countries, including representatives from Africa (Pelling, 2008).

This led to the signing of five agreements which include the Rio declaration; the Biodiversity convention, the Framework convention on climate change; the agreement of Forests principles, and Agenda 21. The Rio declaration seeks to promote sustainable development. Biodiversity convention is concerned with Biotechnology rights. The Framework on climate change was the brain child of the Inter-governmental panel on climate change (IIPCC) which created the awareness that greenhouse emissions, particularly from industry and transport sectors can cause global climate change and rise in sea level and bring negative consequences to natural and human systems. Global North accepts the responsibility for increases in greenhouse emissions in the world, with the US contributing to a larger degree than others. The agreement on forest principles is designed to protect forests. The last which is Agenda 21 represents guiding principles for achieving a more sustaining future. Since the Reo Earth summit, several meetings related to environment and development has been held under the auspices of the United Nations. There was a meeting in New York in 1997 (Reo+5) and Johannesburg in 2002 (Reo+10) which led to the Kyoto protocol and Hyodo Framework respectively.

The Kyoto protocol is a stride, for setting the legally binding targets for green house gases (GHGs) internationally. The Hyogo framework is the result of a UN conference in Hyogo, which was held in Japan on 2nd January, 2005. The Hyogo Framework is concerned with building resilience of nations and communities to disasters (Canon, 2008). Another conference of note is the United Nations climate change conference in Bali in December, 2007, during which three agreements were signed by member states: an agreement in principle to halve emissions in

20250, an agreement to negotiate a binding deal in 2009, an agreement to provide assistance to developing countries for both mitigation and adaptation and an agreement by China to pursue emission-cutting (Council of Europe, 2008).

Also notable is the fourth session of the Global platform for disaster reduction held in Geneva in May 2013. This was guided with the aim to strengthen disaster risk reduction in development and to consider new policy framework to replace the Hyogo Framework for action which expired in 2015. These efforts focused mainly on the environment, neglecting social and economic issues, without which sustainable development cannot be achieved.

International Community

The term international community refers to a nebulous group of people and governments of the world. It could also be used when talking about an assembly of people and governments with a mutual sense of belonging, sharing common interests, for example, the United Nations General Assembly or other similar assemblies of its member countries.

Environment and Socio-economic Development

Environment and socio-economic development are closely related particularly in the developing countries. In Africa land has several uses such as farming, fishing, animal husbandry, forestry, small scale business and so on. (Todaro & Smith, 2009). These activities determine the livelihood of majority of populations who are engaged in farming, fishing, lumbering, animal husbandry, etc. Shifting method is no longer feasible; instead, the soil is constantly under cultivation, thereby leading to deepening land degradation and poor rate of yield. Such changes spill over to affect the well-being of individuals and communities.

Implication for Agriculture

Large supplies of labour will be needed to produce food, but a large supply of labour is not guaranteed based on Africa's experiences. Emphasis has therefore shifted to non-human inputs, such as irrigation, improved variation of cereals and fertilizer. All these inputs are far from the reach of the small farmer, even if he uses all resources in his possession. The small-farmer has equally a less chance of securing credit from private institutions.

The importance of the small farmer in food production (Obasanjo & Mobogunje, 1991) implicates national and international agencies' interventions to provide the required inputs to the small farmer.

CONCEPT AND IMPERATIVES OF COMMUNITY DEVELOPMENT

Community development involves change. It is personal and social development in the community. It is connoting improvements in the lives of individuals and communities not (Wordu, 2018) merely the completion of top-down-based projects. It involves empowerment, capacities and democratic participation (Amadei, 2015).

The objectives of community development are: to improve indigenous agriculture; to improve health; to improve education; to improve the environment and; to create opportunities

for people to participate in all things (Wordu, 2018). Community development has the goal of sustainable socio-economic transformation.

Ecological Disasters and Community Development

There is a connection between environment and community. This is not peculiar to sub-sahara Africa but applies to all communities in the World. The way of life of members of a community is largely defined by the environment in which they live. In Africa for example, people's livelihoods depend on natural resources such as land, forest, rivers, etc. within their environment. such changes tend to spill over to individual's economy and the social system. If community development must be achieved, ecological disaster must be addressed. Thus, community development requires sustainable development.

SUSTAINABLE DEVELOPMENT

The council of Europe (2002) views sustainable development as empowering individuals to shape their own lives by given them access to their most fundamental rights, including the right to education and vocational training, the right to health life, the right descent but also fulfilling work and the right to social protection for vulnerable groups. The goal of sustainable development "must be to help people to live in peace and equity --- in the spirit of intergeneration solidarity.

Community Participation

Community participation have been acknowledged as an indispensable factor in development (Desai 2008). Experience has shown that the poor and other disadvantaged groups are often not participating in their own development. This means that they are not sharing as other groups in the benefits of development; not actively contributing to development; and not involved in decision making at all level of society. Therefore, if participation is to alter the basic relationships between development and environment there is need to enlighten them.

Three main forms of education are formal education, non-formal education and in-formal education. Formal education of children and youths is provided within institutions such as schools, colleges and universities. That for the adult is offered outside the school systems. Non formal education is education provided for all ages of learners outside the school system. Informal education refers to learning through experiences one undergoes in life, with or without intent to learn.

Non-formal education is the best approach. Unlike formal education, which has strict-entry requirements, in non-formal education there are no entry requirements. It is therefore likely to elicit greater level of participation than the others due to the total population of the community can be mobilized to engage in activities that is capable of making them resilient to disaster risks. To Ngwu (1987) participation is the under pingging in non-formal education, because, non-formal education derives it meaning and importance from the idea of participation. The advantage of non-formal education over informal education is that it is institutionalized while informal education is not.

COMMUNITY EDUCATION

The term community education attracts many definitions. Community education covers teaching of children to the broader concept of identifying needs, problems and wants of a community, and developing facilities and programmes for the improvement of the whole community (Aidcey & Voorhoes, 1969 cited in Anyanwu, 2002). It has no age limits and involves wider contexts. It provides opportunities for acquiring knowledge and skills as well as complementary services required to enable participants use their knowledge to improve themselves and their communities.

Wordu (2018) defines operationally community education as outreach programmes of an organization outside the organization's premises to reach people elsewhere. CONVINITEA VI indicates that community education (Mba, 2004, p. 54) is about:

To develop the autonomy and the Source of responsibility of people and communities, to reinforce the capacity to deal with the transformations taking place in the economy, in culture and in society as a whole, and to promote coexistence, tolerance and the informed and creative participation of citizens in their communities, to take control of their destiny and society in order to face the challenges ahead.

Community Education Agenda for Community Development

Within the context of community development, reducing disaster risk requires a range of educational and other services, which include:

Mass Education and Extension Work

Mass education involves an attack on ignorance and dependency. It is also an attack on apathy, prejudice and disease. It is not merely concerned with literacy and numeracy but helps people to learn how to live. Mass education and extension services work together to improve the general well-being of people and their communities, particularly disadvantaged, through improvement in areas such as agriculture, health and nutrition domestic science, literacy work and co-operative. It is designed to encourage the wider population to learn and solve their problems with some assistance from external agencies in their local communities.

Extension work is aimed at altering the behavioural aspects of the rural population through conviction, communication and diffusion of information. Extension agents encourage people to accept the scientific and modern techniques in agriculture (Lang, 1982), which according to Dasai, (2008, p. 200) seeks to:

integrate biological and ecological processes, such as nutrient cycling, nitrogen fixation, soil regeneration, competition, predation and parasitism, into food production processes; minimize the use of those non-renewable inputs that cause harm to the environment or to the health of farmers and consumers; make productive use of the knowledge and skills of farmers, so improving their self-reliance and substituting human capital for costly external inputs and make productive use of people's collective capacities to work together to solve common

agricultural and natural resources problems such as for pest, water-shed, irrigation, forest and credit management.

Upbringing of Children

The upbringing of children in school brings a lot of benefits to the family, but greater results can be realized to the benefit of the social and economic structure, if parent can expose them to vocational skills that complement school learning such as fashion and designing, painting and decoration weaving, art work, farming, computer- based skills, as well as social and inter-personal skills. This will help not only to channel their energies to useful activities, but also contribute towards improving performance in school. It is important to prevent and control crime and delinquency.

The ability to achieve this does not rely on legislation or punishment alone. It involves the total welfare of children both culprits and non-culprits and in a way, this implies efficiency in the utilization of resources as resources required for the welfare of children is less costly than modern juvenile delinquency, which is as wasteful as the modern man. Best practices involve: building parenting and family capacity and post-birth; creating communities that provide new supportive environment for children and families; delivering integrated services that meet the holistic needs of children and families, and developing a suitable workshop to support the framework.

Access to Resources Needed for a Decent Standard of Living

Access to resources is important because of socio-political factors. Governance has become a central factor in resources distribution. Because of over raking functions related to governance, there is danger of neglect of the poor if access to resources is highly volatile. There is need to set up advocacy in favour of the poor; in addition, resources must be provided in pariahs with education to enable the beneficiaries use their skills effectively. Resources here refers not only to materials related to reading and writing, but to such as credit, seeds, chemicals, tools, power supply, hospitals, school, social and economic infrastructure etc.

Access to Water Supply

Access to water supply is necessary to meet the community's need for drinking water. It is estimated that twelve million people die in connection with water scarcity in the world (Shaw, 2008 cited in Kodundouring & Kodundouris 2008). Water supply is necessary for both social and economic reasons. Clean water is close to health, its absence is dangerous to health. Water is required for productive purposes especially in agriculture. Hydro-electric power supply can be used to obviate water shortage, particularly in areas with less rain fall.

Adaptation to Environment

There is evidence to show that ecological disasters are growing whilst there is not much that can be done to halt this growth, because global warming has been increasing, it is possible to adapt to the environment. Todaro and Smith (2009) posit that low incomes make it difficult financing of adaptation, which suggests that Sub-Sahara African countries will depend to a large extent on the

international community. The process of adaptation according to Todaro and Smith (2009, p. 212) involves:

Inventorying and tracking ecological resources of the poor, addressing environmental deprivations, including susceptibility to ecological stresses in poverty assessment and programmes, implementing early warning systems to anticipate environmental emergencies and to prevent disasters (preserving funds for development efforts), restoring and expanding natural ecosystem barriers (such as reforestation and mangrove expansion), reducing extreme events such as flooding and water shortages, and constructing infrastructure to serve poor while accounting for likely climate change including storm shelter and flood barriers.

The role of co-operative as agents of rural/community development is pivotal. They are important organs for mutual bargaining with governmental and non-governmental agencies.

IMPORTANCE OF GOVERNANCE

The importance of governance lies in promoting the rule of law, citizens' rights of access to information, public participation and equal access to justice Wingqvist et al. (2012). These factors are necessary for community development. The importance of governance is evident in fighting corruption and maintaining transparency in relation to use of resources commonly owned by communities through strengthening accountability and enforcement of environmental laws for the benefit of communities. Corruption needs to be addressed so as not to infringe on elements involved in ensuring success of programmes.

Strengthening transparency implies active participation of communities and this is likely to encourage more equal access to public services. This could also promote peace rather than conflicts in the relationship between communities and firms. Enforcement of environment laws may reduce illegal activities in communities and ensure adequate compensation of damages done to the environment.

What Should be done for Effective Planning?

Effective planning involves collection of realistic data, assessment of the level of efficiency of the economy, determination of the level of environmental health/hygiene, analysis of consequences and cost of wastes, ascertaining the level of unemployment, as well as social services and infrastructure availability.

CONCLUSION

Community development is possible despite the persistence of global warming. Formal education structures are not suitable. This is only possible in a non-formal education setting. Therefore, non-formal education needs to be encouraged in Nigeria to raise the capacities of people, particularly those living in rural areas. Combining learning outcomes and social services and economic infrastructure is required to reducing intensity of disaster and vulnerability. Community education is the panacea to change in the community.

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