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SOCIO-ECONOMIC FACTORS AFFECTING ENVIRONMENTAL HEALTH CONDITIONS IN RURAL AGRARIAN SOCIETY IN EBONYI STATE, NIGERIAN

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ABSTRACT

Health though the outcome of genetic and biological processes is influenced by the social and economic conditions in which we live. Inequalities in social conditions give rise to unequal and unjust health conditions for different social groups. The social, economic, and political situations that affect the health of individuals, communities, and societies are significant and therefore need to be understood in addressing environmental health issues. Social factors such as poverty, food insecurity, social exclusion and discrimination, poor housing, unhealthy early childhood conditions and low occupational status are important determinants of most diseases, deaths and health inequalities between and within countries. Social inequalities in the levels of income, poverty, education and access to healthcare facilities are predominantly observable in agrarian societies and ought to be understood in planning intervention programmes in the rural areas. This article made contributions on this front by examining the rural agrarian society of Ebonyi State. The article adopted the 'desktop research' approach as the methodology, making technical analysis of existing issues. Documents from the state health departments, publications, journals, repositories, media and agencies reports and reviews on agrarian society in Ebonyi state were used as sources of data and information. The article concluded by making suggestions on the way forward.

Key Word: *Agrarian society, Determinant, Ebonyi, Environmental health, Inequalities, Social exclusion.*

INTRODUCTION

The definition of environmental health varies from organization to organization, although the basic premise remains the same. Environmental health addresses all the physical, chemical, and biological factors external to a person, and all the related factors impacting behaviours. It encompasses the assessment and control of those environmental factors that can potentially affect health. It is targeted towards preventing disease and creating health-supportive environments. This definition excludes behaviour not related to environment, as well as behaviour related to the social and cultural environment, and genetics. There have been evidences of social health inequalities globally (Kunst, 2007) and this is manifested by various forms of diseases having higher prevalence among socially disadvantaged population than the more affluent population. Notably among the diseases that are more prevalently related to socio-economic inequalities in environmental health are diabetes (Dalstra, 2005), cardiovascular diseases (Dalstra , 2005), some types of cancer (Passchier-Vermeer *et al*., 2000; Mitchell et al., 2003), and the most severe forms of asthma (Cesaroni, 2003; Ellison-Loschmann*et al*., 2007). Poverty and deprivation in early childhood are social conditions occasioned by socio-economic inequalities in the society that most often influence both health and development in various dimensions and can have serious negative health consequences for the entire life (Hornberg*et al*., 2007). In spite of the numerous factors already identified, some of these inequalities remain

unexplained. In light of this, it is suspected that environmental nuisances also contribute to social inequalities in health (O'Neill, 2007; Siegrist*et al*., 2004 and Evans, 2002).

Generally in Nigeria, social, economic and political factors play crucial roles in defining and influencing issues relating to health, marriage, gender, occupational placement and family relations. These facts are hinged on social inequalities made prevalent by economic conditions of different segments of the society.

Agrarian Community in Ebonyi State

Ebonyi state was created on October 1, 1996, with Abakaliki as its capital. The State was carved out of the former Abia and EnuguStates. It derived its name from the River Aboine, and is located in the southeast geopolitical zone of Nigeria. It is bounded to the North by BenueState, to the West by EnuguState, to the East by Cross-RiverState and to the South by AbiaState. Ebonyi State has an estimated population of about 2, 535, 344 million people in 2013 on a total land area of 5,925 square kilometres. The State lies approximately between Longitudes 730' and 830' East and Latitude 540' and 645' North (NPC, 2006).

There are 13 Local Government Areas (LGA) in the State namely: Abakaliki, Ebonyi, Izzi, Ishielu, Ohaukwu, Ikwo, Ezza South, Ezza North, Afikpo South, Afikpo North, Ohaozara, Onicha and Ivo. The State is also divided into three senatorial zones namely: Ebonyi North comprising Abakaliki, Ebonyi, Ishielu, Ohaukwu and Izzi LGAs; Ebonyi Central made up of Ikwo, Ezza North, Ezza South LGAs and Ebonyi South made up of Afikpo North, Afikpo South, Ivo, Ohaozara and Onicha LGAs. The people of EbonyiState are of Igbo stock. However, there are non-Igbo speaking indigenes such as the Okpotos and the Ntezis in Ishielu LGA.

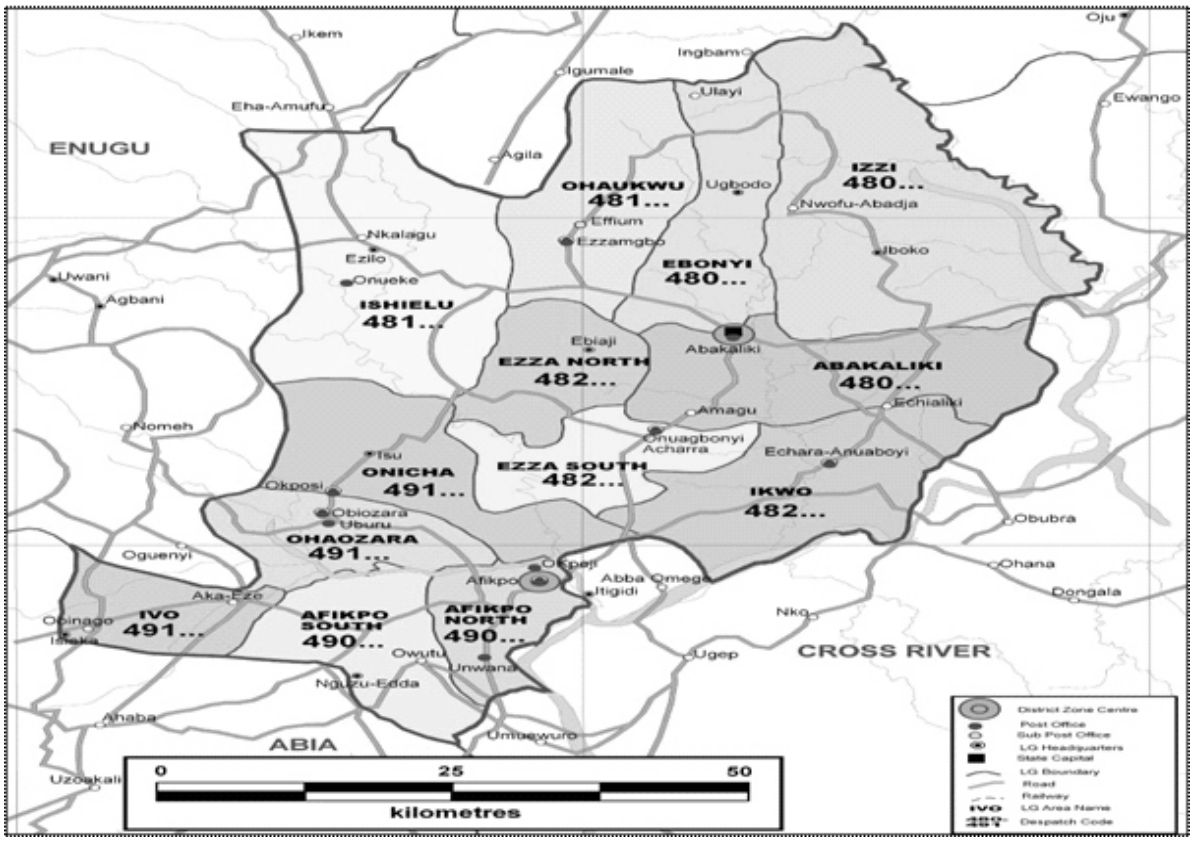

Fig. 1: Map of Ebonyi State Showing the Local Government Areas

Two main soil types are found in the State. These are the silt-clayey and the gray sandy-clay hydromorphic soils. The former has a brown loamy top horizon which overlies a reddish-brown silty clay sub-soil. The soil is moderately to imperfectly drained, with a moderately low natural fertility. With appropriate agro techniques and regular application of fertilizer this soil can produce good yields of wide variety of crops such as cassava, vegetables, plantain and groundnut. The soil type in addition to poor fertility, strong acidity and lack of nutrients, suffers from poor drainage (http://www.onlinenigeria.com). Due to excess moisture, it is suitable for rice cultivation. Ebonyi State falls between the rainforest and Savannah belt of South-Eastern Nigeria.

Nature of Environmental Health Problems in Ebonyi State

Duruibe *et al*, (2007) who studied the Ishiagu District of Ebonyi State found out that intensive mining in that area has polluted the rivers and wells making them unsafe for drinking. Anosike *et al.* (2006) who studied ten villages inhabited by Ezza farmers of Ebonyi State, found out that the migrant farmers showed moderate susceptibility to *haematobium* infection with an overall prevalence of 22.1% but a high prevalence value for *vesicalschistsomiasis*. This was because they work in several rice farms and swampy areas where they contact the disease parasites. In that study, men were found to have higher prevalence than women probably because of variation in behaviour regarding water use and contact.

Anosike *et al*. (2005) discovered that lymphatic filariasis was endemic among the Ezza people with overall prevalence of 16.9%. Prevalence was found to rise with age and worse among farming age group. There was similarity in prevalence between males and females. This is because both men and women equally work on farms. So the high prevalence generally found among them can be explained by their occupational dispositions, living conditions, frequency of exposure to infectious bites from mosquitoes due to proximity to various breeding sites of the vectors. Furthermore, Anosike *et al*. (2000) saw guinea worm as a disease of poor rural communities in Ishieke in Ebonyi State where they collect water from ponds infested by water fleas called Cyclops. The occurrence of blisters on legs and hands a year after infection has important socioeconomic consequences in a population where farming is a major occupation.

SOCIO-ECONOMIC FACTORS AFFECTING ENVIRONMENTAL HEALTH IN THE STUDY AREA

Poor Housing

Housing is one of the traditional areas of concern for public health. Though it has been relatively neglected over recent decades, housing is important for many aspects of healthy living and well-being. The home is important for psychosocial reasons as well as its protection against the elements, but it can also be the source of a wide range of hazards (physical, chemical, biological). It is the environment in which most people spend the majority of their time. The wider local environment around the home is also important in terms of fear of crime, and the accessibility of services. Increasingly in unstable economic conditions, the affordability of decent housing and the potential for individuals to lose their home because of debts they are unable to meet has become a problem for large numbers of people including people of Ebonyi State. A significant development in recent years has been the development of the Housing Health and Safety Rating System which provides a health-based assessment of housing-related hazards. The scientific evidence on the many links between housing and health has grown substantially in recent decades. This evidence can be used to guide "primary preventive" measures related to housing

construction, renovation, use and maintenance, which can promote better overall health. Housing improvements are accelerating for many reasons to conserve energy in the face of climate change, address needs of a rapidly urbanizing global population, prevention of homelessness, slum growth, and other factors. The quality of housing a child lives in can affect their health in many ways, with overcrowding, insecurity and the poor physical condition of housing, as well as fuel poverty posing risks. A study carried out by Shelter in 2006 suggested that children in bad housing conditions are more likely to have mental health problems, such as anxiety and depression, to contract meningitis, have respiratory problems, experience long-term ill health and disability, experience slow physical growth and have delayed cognitive development (Harker, 2010).

Women and children are particularly affected by smoke from biomass fuels, because they spend more time indoors than men. World Bank (2001) reported that a study in Gambia, found that infants exposed to smoky stoves are six times more likely to have acute respiratory infections than those who were not exposed. It further reported that studies in India, Nepal and Papua New guinea, show that non-smoking women who have cooked on biomass stoves for long exhibit a higher prevalence of chronic lung disease (asthma and bronchitis). Exposure to high levels of indoor smoke is also associated with pregnancy related problems such as still births and low birth weights in infants.

The space available within a home can also impact on other wider health determinants. Educational attainment, for example, can be hindered where there is insufficient quiet, warm space for children to do their homework and familial relationships can be affected by the level of privacy available (CABE, 2010). Housing conditions such as lack of thermal comfort, dampness and mould, indoor air pollution, infestations, home safety, noise, accessibility and other factors all impact on health and the respective exposure varies between social groups and tenure within the population. Consequently, Howden-Chapman (2002) identified housing policy as a means of reducing inequalities in health between social groups.

Occupational Status

Occupational status is one component of socioeconomic status (SES), summarizing the power, income and educational requirements associated with various positions in the occupational structure. Occupational status has several advantages over the other major indicators of SES, which are most commonly educational attainment and personal or family income. First, occupational status reflects the outcome of educational attainment, provides information about the skills and credentials required to obtain a job, and the associated monetary and other rewards. For example, professionals are differentiated from manual workers by selection on educational attainment that influences patterns of remuneration. Occupational status is also likely to be a better indicator of income over the long term than is information on income collected at any single point in time, because in the short-term, income can be quite volatile (Williams and Collins 1995). Finally, occupational status is a promising measure of social position that can provide information about job characteristics, such as environmental and working conditions, decision-making latitude, and psychological demands of the job.

Occupational status is hypothesized to be related to health because (1) it positions individuals within the social structure, which defines access to resources and constraints that can have implications for health and mortality (Mare 1990; Moore and Hayward 1990), and (2) each particular job has its own set of demands and rewards that can influence health, such as

physically hazardous or psychologically stressful working conditions (House *et al*., 1980; Karasek*et al*., 1981), as well as effects of the job on lifestyle factors including drinking, smoking, and obesity (Sorenson *et al*. 1985; House *et al*. 1986). Income and prestige gained from an occupation influence health-related behaviors, choice of community setting and social networks, as well as providing the funds to purchase medical care, healthy foods, and a safe living environment. Members of different occupational groups also vary in risk factor development and health behaviors because selection criteria for recruitment differ across jobs, as do patterns of socialization and the nature of work performed.

Furthermore, exposure to certain agricultural and industrial chemicals and organic pollutants increases women's vulnerability in pregnancy and childbirth and can lead to childhood illnesses and mortality. WHO (1994 p. 317-321) reported that in central Sudan, pesticide exposure was linked to 22% of hospital stillbirths. About 35% of prenatal deaths were due to the exposure of women farmers to pesticides (Taha and Gray, 1993). Exposure to pesticides has been linked to testicular cancers and lower sperm counts (Alejandro *et al.,* 2001). People's sources of economic livelihoods and health are affected in all these findings.

Ebonyi state is agrarian in nature and as result the major occupation of the people is farming. Most of the farmers are small scale in nature occasioned by low income of the people and inadequate infrastructure especially mechanised implements for farming. As a result, the farmers have low income to take care of their health needs.

Poverty

Both poverty and economic inequality are bad for health. Poverty is an important risk factor of illness and premature death. It affects health directly and indirectly, in many ways, e.g. financial strain, poor housing, poor living environments and poor diet, and limited access to employment, other resources, services and opportunities. Poor health can also cause poverty.

Social Exclusion and Discrimination

Social exclusion is the process by which groups and Individuals are prevented from participating fully in society as a result of a range of factors including poverty, unemployment, caring\responsibilities,poor education or lack of skills, women, older people, people with disabilities or homeless people, for example, may experience social exclusion. Social exclusion therefore is about more than poverty. It is about isolation from participation in social life, and from power and decision-making. Social exclusion is often compounded by discrimination, which can arise on the basis of a person's gender, race or ethnicity, disability, marital, family or caring status, age, religion or equality. Legislation has an important role to play in tackling these forms of discrimination and promoting greater equality, inclusion, and diversity.

Gender

Gender differences in health and mortality are complex and not yet fully understood. The social determinants of health have both similar and different effects on men and women. Women seem to have a biological advantage over men in terms of life expectancy. Men tend to die younger than women, and research suggests that the work they do and issues like job security and unemployment often affect men's health.

CHALLENGES OF ENVIRONMENTAL HEALTH (EH) SERVICE DELIVERY

Weak Governmental Policy and Legislation

Many people had argued that policies are non-existent but the fact is that no nation exists without one form of policy or the other. Policies directed towards improving EH services in Nigeria are weak and ineffective. There also seem to be some constitutional defects in the role definition as regards responsibility for EH matters. While it is generally believed that EH services are largely the responsibility of LGAs. It is a known fact that LGAs as presently constituted, financed and managed would be unable to ensure a healthy environment. The need for a reappraisal may be necessary. The National Policy of Environmental Sanitation championed by the Federal Ministry of Environment seen as a right step towards addressing this problem has been relegated as a result of laxity on the part of operating officers, poor administration of the programme and insufficient mass media awareness of the immense benefits of the programme.

In addition to this is the fact that most EH legislations are either obsolete, inconsistent or failed to take cognizance of the cultural settings in which they are supposed to operate. The need for suitable legislations to address specific EH issues is urgent.

High Level of Ignorance

To a large extent, many people including many of those expected to provide EH services have not fully appreciated the significance of the environmental dimensions of health and the correct issues involved. Specifically many people particularly mothers have not fully understood the link between personal/public hygiene, health and disease as well as the ways to break the link. In addition to these, many policy makers and professionals still hold on to the restrictive bio-medical approach to health and disease. Where knowledge is low, incomplete or incorrect, there is the tendency that people's ability to make informed decision about their health would be limited and their exposure to risks aggravated.

Poor Political will and Commitment

In many places, there is poor political will and commitment. This lack of will also include the lack of will to make realistic plans and the poor will to implement plans. EH services requires commitment on the part of all stakeholders towards the realization of program goals. It must be appreciated that mobilization in favor of improved EH has been poor, non-specific and sometimes misdirected. There is need to increase the commitment of all. This is particularly required at the LGA level.

Poor Funding of EH Services

Funding for EH services have been poor over the years compared with other sub-sector. Though it is difficult to obtain how much had been spent by each tier of government on EH, it is generally believed that the sector had not been favoured in the allocation of needed resources. In many states of the federation, many LGAs are without a functional refuse van while other implements required are either insufficient or unavailable. The success of most EH programme is directly dependent on the amount of resource inputs and this has to be appreciated. In addition to this, lack of resourcefulness is another factor that has bedeviled the sector. In most cases, the little resources allocated are really not available to prosecute EH services due to undue corruption. In many places, EH services are seen as one of the main conduit pipes through which funds are siphoned. The need to be more resourceful is considered very important.

Training and Human Resources Development

The training of most EH personnel takes place at the state government-owned Schools of Health Technology/Hygiene which are expected to be of the status of a Monotechnic . There are about 35 of such schools in Nigeria. The standard of many of these schools leaves much to be desired. Training and human resources development must be seen as an important aspect of evidence-based EH service delivery.

WAY FORWARD POLICY ISSUES

Policy issues to consider in improving environmental health conditions include:

1. Strategies to reduce poverty and inequality are fundamental to reducing health Inequalities.

2. Long-term targets for greater health equity and the reduction of health inequalities need to become government priorities, and need to be championed, resourced, reviewed and supported by medium and shorter term goals of actions.

3. Policies and actions to address poverty, social exclusion and health inequalities need to be Mainstreamed into all policy areas.

4. Working for health equity requires a joined-up approach across government departments and cross sectoral partnerships between and within sectors.

5. Health Impact Assessment could usefully inform this process as it enables policy makers to assess the health implications of a wide range of public policy decisions.

6. Promoting social inclusion and respecting diversity need to be key public policy Priorities.

7. Data collection strategies need to ensure that adequate information about the social and spatial patterning of population health is made routinely available.

8. Public service delivery should be equitable, culturally sensitive and appropriate to diverse needs and accessible to people with disabilities and other vulnerable groups and communities.

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