

## AN EVALUATION OF ENVIRONMENTAL POLLUTION IN AWKA TOWN IN VIEW OF *LAUDATO SI'*

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### **Abstract**

Awka town which is equally the capital city of Anambra state is quite the opposite of what is expected of a capital city as a result of the Environmental pollution evidenced in the town. This work attempts to critically evaluate the environmental pollution in Awka town in view of the encyclical letter of Pope Francis captioned *LAUDATO SI'*. The Reasoned/Responsible Action Theory, The Environmental Citizenship Theory, the Pollution Haven Hypothesis and the concept of Ecological sin were employed in this work to actualize its peculiar purpose. The primary and secondary means of data collection were equally espoused in this study. It was realised that the majority of Awka residents are oblivious of the fact that environmental pollution is a disruption of God's created order; hence they indulge in it: The corollary effect is that it makes the town dirty and unkept; and equally makes the town uninhabitable while the air in the atmosphere is fusty, musty and unhealthy. The few spacious empty lands are so congested with refuse dumps that some of them are no longer fit for agricultural and even construction purposes. This work in the light of the contents of *LAUDATO SI'* challenges the residents and citizens of Awka town to desist from environmental pollution, since it is against God's design and desire; and constitutes a violation of the beauty of nature and a sin against nature: In order to restore the civil and pristine nature of the town and make the environment healthy and habitable; and the lands fit for Agricultural as well as construction purposes. This work adopts the qualitative method of data analysis. All the data that were collected were efficiently presented via phenomenological and culture-centered approaches.

**Keywords:** Pollution-Environment-Land-Air-Habitable-Healthy-Residents-Citizens.

### **Introduction**

The crisis of Environmental pollution in Awka town has grown to a level that even when passing a refuse dump inside a factory-fitted-air-conditioned car, the musty and fusty smells of the refuse must definitely find its way into the car. Irrespective of the fact that the present Government of Anambra state is trying its best in mitigating this growing environmental pollution crisis in the state, the problem still persists especially in Awka Town.

The environmental pollution crisis in Awka Town is not just an imaginative one, but it is filled with constant face-off with the reality of its persistence. Anambra state was once declared as the second most dirty place in Nigeria as Ikenwa (2023) recorded. According to her statement, "Even if some of these worst states set Thursday and the last Saturday of the month as environmental sanitation's day, the sermon of uncleanness still lurks around these states" (p.1). Egbedi (2017), in the same vein commented that World Health Organisation (WHO) in 2016 labeled Onitsha the most polluted city in the world. He declared that Onitsha is grossly polluted, not just in terms of the air quality, but also there exists solid waste that litters the streets, blocking drainages and canals.

Little wonder Ezekeke (2023) lamented that he can never picture Anambra state as a clean state.

A survey of Zik's Avenue, Ifite Road, Arthur Eze Avenue, Abakiliki street and almost all the major road junctions in Awka town reveals that there are constant piles of refuses dumped at both strategic and common places to the tone that according to him, the filth of these streets and road junctions becomes too entrenched in one's memory that thinking otherwise will become like wielding an unrealistic dream.

For instance, in Ifite Awka, the residential area populated with indigenes of Awka, various families from different towns residing as tenants, and mostly students from Nnamdi Azikiwe University; it is almost impossible to take a stroll without looking over ones shoulders every two seconds, since one is definitely sharing the sidewalk with the incinerators and its overflowing waste; one has to be wary of vehicle that may hit and probably kill one as Ezekeke (2023), observed. She equally observed that the gutters are no longer used for the free passage of water but for subsidiary incinerators. The greatest tragedy is that residents of Awka appears to be oblivious of the fact that pouring waste into the gutters does not solve the problem rather it breeds more wastes resulting in Environmental pollution.

Environmental pollution in Awka town persists because almost everyone living in the town is guilty of dumping refuse, throwing away used bottled water or soft drinks cans and pouring dirty water at points that are not properly allocated for such by the authorities. People even dump contraband at refuse dumps when they noticed that the security services are monitoring them as O. Maduka, E. Ibegbu and K. Enemu (personal communication, June 7th, 2023), all emphasised in the same mode. Passers-by hardly take note of what others are dumping in the refuse dumps since everyone has taken it to be a tradition in Awka. On Sunday, December 25, 2022, the body of an abducted man was found on a road in Awka as THE STREET JOURNAL reported. Whereas Chukindi (2020), once recorded those residents of Okpuno, in Awka, discovered what was suspected to be a day-old dead baby in a refuse dump close to Geneva Hotel. He also equally exclaimed that even though the baby was found dead, it still looked fresh. Such is the extent of Environmental pollution in Awka town.

The afore-stated scenario of affairs prompted the resolve to undertake this peculiar study. Thus, the resultant effects of the Environmental pollution in Awka are keeping the town dirty, unhealthy and the air filled with acrid smells of rotteness; it has equally rendered some lands unfit for agricultural use and even building objectives. This work then attempts to critically evaluate the Environmental Pollution in Awka town using the contents of the Encyclical letter *LAUDATO SI'* written by Pope Francis as a condemning, corrective and progressive stance.

In order to achieve the purpose of this study, this work adopted the following theories, hypothesis and concept, viz: the Environmental citizenship theory in order to equip the populace in Awka that the Environmental belongs to them, how they utilize and harness it determines how useful it will become for them in the future: The Reasoned/Responsible Action Theory in order to buttress that if the majority of the people residing at Awka becomes wary of how they dispose of their refuse and equally eschew from polluting the Environment, Everyone will become cautions and mindful of how they discard their refuse, making sure to dump them at the proper places and modes: Pollution Haven Hypothesis in order to portray that human kind more often than not attempt to pollute the Environment more were there are no stringent or strict punishment and even prosecution for defaulters: whereas the Ecological sin concept was adopted to help instill into the residents of Awka that Environmental pollution is a sin to oneself, against the created order and equally against God.

The primary and secondary means of data collection were utilized in this work; whereas the qualitative method of data analysis was employed in this study. All the data that were gathered

were efficiently harnessed via phenomenological and culture-centered approaches.

### **Clarification of Terms**

The words in the topic of study will be defined in ways that are relative to the purpose of this work, thus;

1. **Evaluation:** According to Thorpe (1988) “Evaluations is the collection, analysis and interpretation of information about any aspect of a programme of education, as part of a recognized process of judging its effectiveness, its efficiency and any other outcomes it may have” (p10). C.E. Beeby (cited by Hashmi, 2019) defined evaluation as “... the systematic collection and interpretation of evidence leading as a part of process to a judgment of value. With a view to action” (p.7). Fenton (cited by Yambi, 2020) on the other hand defined Evaluation as “The application of a standard and a decision-making system to assessment data to produce judgments about the amount and adequacy of the learning that has taken place” (p.5). Thus Evaluation pertinent to this study is the process of thorough examination including judging and calculating the quality, importance, amount, or value of something to determine its efficiency in every setting.
2. **Environmental Pollution:** According to Pandey (2022), Environmental pollution is any addition of erroneous substances or energies to the environment, that causes a change to the composition of the environment. These variables can be air, water, soil, noise, and light and changes to their natural values can have profound, consequences for ecosystems and human life. Husen (2023), equally defined Environmental pollution as the addition of any substance (solid, liquid, or gas) or any form of energy (such as heat, sound, or radioactivity) to the environment at a rate faster than it can be dispersed, assimilated, diluted, decomposed, recycled or stored in some harmless form. It is equally the contamination of the physical and biological components of the earth/atmosphere system to such an extent that normal environmental processes are adversely affected as Iyyanki and Manickam (2017) declared. Thus environmental pollution occurs when harmful materials are introduced into the environment. In lieu with this study, Environmental pollution is the indiscriminate dumping of refuse, waste papers, bottles and cans at inappropriate places thereby making the environments dirty as well as harming the agricultural lands since these objectives are hard and cannot dissolve nor dilute even for a very long period of time. The indiscriminate building of homes and makeshift shops at every given space is equally included in that which pollutes the environment in Awka Town.

### **Environmental Pollution in Awka Town**

Environmental pollution is a danger to people inhabiting the neighborhood wherein such is evidenced. The situation in Awka town located in Awka South Local Government Area of Anambra State, Nigeria is deplorable that it has become a reference point for sampling. Considering the peculiar focus of this work on the issue of environmental pollution (that is indiscriminate dumping of refuse, bottled cans and sachets of water, papers and even pouring of dirty water at the Awka town’s case is worse than a nightmare.

Residents in Awka kept lamenting over the dumping of refuse in major streets and roundabouts. They are even envisaging a serious health hazard that may occur or an epidemic outbreak. Nzeagwu (2022), recorded that the residents of Awka complain that the sight of refuse to litter the state capital and environs has become unbearable as some residents now drop their waste anywhere, particularly people living at Zik’s Avenue, Arthur Eze Avenue, Ifite areas and Unizik Tempsite axis; thus turning the environment into an eyesore. This problem still remains unsolved, the residents that are complaining are equally the culprits involved in polluting the environment. There are no laid down strict disciplinary measures on defaulters pertinent to environmental

pollution in Awka.

Nzeagwu (2022), observed that the drainages running through the major roads, like Arthur Eze Avenue, Works Road, Unizik temp-site junction, Kwata junction amongst others are always littered with heaps of refuse, which have equally become a recurring site. Ndife (2023), in her investigation reported that parts of Awka, especially the major streets, and within Eke Awka market which is the major market in Awka and its surroundings have almost been covered with waste, exposing people to health hazards, as passersby always cover their nostrils while crossing those areas.

Obianeri (2022), noted that the waste disposal truck operators are not constant with prompt clearing of wastes. Residents complain of the absence of the original refuse dump sites located in strategic areas which have now been removed with surveillance mounted to arrest offenders. One will wonder what the government expects the residents to do in such a situation. Mrs Nancy Ihughah a health personnel in Awka (cited by Nzeagwu 2022), lamented that flies and stench oozing from refuse dumps are threats to public health.

Obianeri (2022), in his investigations noted that the refuse dumps in some cases in Awka, have encroached on the streets, blocking drainage and defacing the aesthetic stance of the neighbourhood. Residents within the area most affected by these ugly development laments that refuse collectors stay up to four months before coming to clear the refuse dumps disposed of at the designated places. One wonders what will happen to those disposed of at the points not designated for it. A resident of Awka, Nda (cited by Obianeri), decried that those incharge of disposing the refuse at the refuse dumps have resorted to burning of refuse in some of the dumpsites and thereby causing pollution especially in the hot weather season. He went ahead to declare:

The method they adopt in clearing the refuse is also another cause for worry, sometimes they pack the work with their bare hands and shovels into their trucks and when they eventually carry the refuses, you see them spreading the garbage on the roads and this is not good at all. (p.1).

This is actually a bizarre scenario that should be discouraged without delay.

There abounds so many unacceptable behaviours and attitudes toward sanitizing the environment that some of the residents of Awka town dispel. Some throw away human excretes in the paper bags or waterproofs into the bushes or lands left to fallow, these equally pollute such lands. Ndife (2023), intimated that following the seal off of refuse dump sites by the Anambra state government to check indiscriminate disposal of wastes, residents of the capital city of Awka have resorted to dumping refuse in drainages, bushes and waterways.

In a particular instance, Okafor (2022), reported that residents of Oby Okoli Avenue in Awka lamented over the closure of all the refuse dumps along the street and leaving only one, by the government. This Avenue hosts so many houses and shops. It is also a major entrance into and out of other street closes, crescents, churches, markets, hotels, lodges (like club road and Y-Junction Street which leads to Regina junction), estates and thousands of residential houses in Okpuno. This made the residents within that neighborhood to be of disposing their refused indiscriminately as the distance between this refuse dump site and those residing in places like Okpuno is 1,400 meters away. Such actions as this that are taken without having proper alternative measures and prior enlightenment facilitates environmental pollution in Awka Town. Thus the government injunction against indiscriminate waste disposal in Eke Awka market and other strategic areas in Awka is actually a medicine after death case since the government failed to proffer alternative measures to the closure of some refuse dump sites as Ovat (2023), affirmed.

### **The Synoptic Presentation of the Contents of *LAUDATO SI'***

*LAUDATO SI'* is Pope Francis's Encyclical letter released on 24th May, 2015. In the introductory words of the letter, Francis (2015), declared;

"*LAUDATO SI', Mi'* Signore – Praise be to you, my Lord". In the words of this beautiful canticle, Saint Francis of Assisi reminds us that our common home is like a sister with whom we share our life and a beautiful mother who opens her arms to embrace us. Praise be to you, my Lord, through our sister, Mother earth, who sustains and governs us, and who produces various fruit with coloured flowers and herbs". (p.).

This introduction portrays the passion with which Pope Francis expects the human; kind to wield their habitation. He actually refers to the Earth as a feminine gender "sister and mother", implying fertility. Thus, the Earth is fertile, and is not barren or unfruitful to mankind. The Earth provides for mankind and sustains them, man ought to treat his environment with utmost care and passion. This introductory sentence captures all there is to how humankind should be taking care of their environment.

Green (2015), commenting on the introductory part of this encyclical declared that the text focuses on environmental stewardship, and in particular, the effects of climate change on human life. He maintained that the themes are directly in keeping with the rest of his papacy: For when he was elected to the office, he informed journalists that he took the name "Francis" in honour of St. Francis of Assisi, who stood for the poor and for peace, and was a man who loved and cared for God's created order. Human beings must then give an account of how they treat their environment. The truth then is that what one proffers or sows into the Earth is what one will definitely reap in the near future.

*LAUDATO SI'* has 246 paragraphs, and it opens with a sixteen-paragraph introduction. Then follows six chapters starting with where the humankind is in the treatment of his habitation and ending with the type of spiritual education needed to come to terms with environmental challenges and poverty. The encyclical was wrapped up with a prayer for the Earth and a Christian prayer in union with creation. Chapter three captioned "critique of the present system and its value": he addressed in consonance with how humankind relates to and treats his environment. The Encyclical posited that man is on the verge of narcissism, in the sense that mankind focuses only on solving his immediate problem without considering long-term consequences. Mankind often ventures into this with share negligence to the environment wherein he dwells. Thus, man's current egocentric nature lures him into harming the environment wherein he dwells. Lyon (2015), captures this as he declared that mankind by cutting themselves off from reality of both nature and spirituality falls into the trap of the "consumer society". Such excessive anthropocentrism stands in the way of shared understanding and any effort to strengthen social bonds. Thus, once human beings declared independence from reality and behave with absolute dominion, the very foundations of their life will definitely begin to crumble. Man, thus tends to set himself at the center, giving absolute priority to immediate convenience. This fosters the problem of mankind extorting and manipulating the environment and even his fellow man, thereby perpetrating poverty.

The striking ethical feature in *LAUDATO SI'* as Decosses and Green pointed out, is its focus on the intrinsic value and rights of non-human creatures and ecosystems; it amplifies the notion of the common good; everything human and non-human is connected, and human moral failure in engagement with the natural world often occurs when this interconnectedness is forgotten or not seen or ignored. Such negligence equally fosters selfish inclinations that make mankind unable to assist one another and thus poverty ravages the less opportune.

The Encyclical *LAUDATO SI'* is born out of deep understanding of the relationship between the human person and his neighbours, the human person and the cosmos, and the human person and his God. This implies that for man to come to the height of his calling, man must learn to show passion and care for themselves and his environment. In caring for his environment, mankind is offering quality and reasonable service to God. Neglecting and abusing one's environment tantamount to the "sin of omission". According to Delville (2023), the ecology has needs that must always be addressed and met by man. Man's inability to meet the needs of his environment is a sin of negligence and omission, and will equally lead him to destruction. *LAUDATO SI'* formally proposes a concrete application of its contents in the contemporary world. It is obvious with the understanding and wisdom that *LAUDATO SI'* bequeaths, the residents of Awka town will not be polluting their environment they will be striving to retain the aesthetic nature of their surroundings and ensure that the land is not abused they will always be acquainted with the fact that they are stewards and will render the accounts of their stewardship, pertinent to the created order to God.

### **Theoretical Framework**

The peculiar theories adopted for the purpose of actualizing the goal of this work will be reflected under this subheading. These theories were all portrayed in the light that aligns with the purpose of this work as they are equally the best suitable for the work.

### **The Reasoned / Responsible Action Theory**

The theory of reasoned Action was developed by Psychologists Martin Fishbein and Icek Ajzen in 1975, originally as an improvement to the information integration theory as Nickerson (2023), pointed out. Fishbein and Ajzen formulated the theory after trying to determine the differences between attitude and behavior as Reardon, Barret, Kelly and Savadogo (1999), affirmed.

The first change from the integration theory is behavioural intention. This theory also underscores that there are circumstances that can restrict the influence of attitude on behavior. Ogungbile, Tabo, and Duivenbooden (1999) gave instance as, if one's attitude leads one to desire to go out clubbing but such a bank account is empty, the lack of money will alter such decision to stay indoors for the night. Thus Merlin, King, Kloosterman, Albright and Taddesse affirmed that the Reasoned Action Theory predicts behavioural intention, an in-between for stopping attitude predictions and actually predicting behavior because it separates behavioural intention from behavior.

Note that another advancement to the Theory of Reasoned Action as Hazel and Lutz (1999), observed is that it has two elements, attitude and the demands of other people (that is standard norms) to predict behavioural intent. In other words, the expectations of other people may influence someone to do something entirely different from such a person's original intention. This is where this theory is applicable to the Environmental pollution in Awka. It presupposes that all things being equal, every person in Awka town ought to be disciplined in disposing of refuse. They ought to be well informed of the way such actions exploit and pollutes the environment. When every person in Awka is equipped with the knowledge that no one should pollute the environment with dirty water and indiscriminate dumping of refuse since it degrades the land, dishevels and contaminates the neighborhood, they will now be making stern effort to see that no one violates the standard rule of refuse disposal: This in place, anyone that violates or is at the verge of violating this standard procedure will simply judge himself because the reverse is the expectations of people from everyone in the neighborhood.

Prevailing circumstances can influence someone's attitude and actions. A person's determination to exhibit a peculiar behavior is dependent on the result the person envisions will manifest as

evidence of exhibiting the behavior. Let the prevailing thought in the minds of every individual in Awka town be on “keeping the environment clean in order not to pollute nor degrade it”, this will go a long way in checkmating idolaters of the standard protocol on sanitization of the environment in Awka town.

### **The Environmental Citizenship Theory**

This theory attempts to equip humankind with the knowledge that they are the integral part of every given habitation they find themselves, hence they should not attempt to exude undue dominance over the environment nor exploit it. Just as the environment serves man, man on his part should be serving the environment. The relationship must be one of mutuality and not egocentric. This implies that whatever human kind deposits into the environment, that is what they will reap in return. It is garbage in, garbage out. In order to drive this mindset home, and for the World Environment Day 2022; The group tagged “The European Network for Environmental Citizenship”, expounds that environmental citizenship requires new ways of thinking and acting, “Being an active environmental citizen includes recognizing the value of livable environments for humans and nature, promoting conservation and restoration of resources, and supporting nature protection and biodiversity” (p.1). This conception facilitated their giving environmental citizenship a specific definition of:

The responsible pro-environmental behavior of citizens who act and participate in society as agents of change in the private and public, on a local, national, and global scale, through individual and collective actions in the direction of solving contemporary environmental problems, preventing the creation of new environmental problems, achieving sustainability as well as developing a health relationship with nature (p.1).

This implies that humankind ought to understand that the environment has its own right; to be reserved, to be kept clean and not to be violated nor exploited by any means.

Dobson and Bell (2006), expounded that the theory of environmental citizenship arose in Canada and has been adopted around the world. Initially propounded by Environment Canada, it involves three main components:

1. The notion that mankind is an integral part of his environment.
2. The understanding that the future of mankind is determined by the way in which he treats the environment.
3. The sense of responsibility that engenders positive action on behalf of the environment.

In order to actualize the afore-listed, as recorded in GED100 – Environmental Citizenship, the progress of environmental citizenship requires everyone’s involvement and contribution. This follows:

- Raising citizens equipped with knowledge of the needs of the environment and its corollary impacts on humankind.
- A government that supports and facilitates valuable and working relationships between man and his habitation.
- An interest in protecting and conserving their environment even if this comes in the form of a desire for human self-preservation as recorded in the United Nations Environment program (2000).

Environmental citizenship theory places the responsibility of caring for the environment on both the government and the citizens of every given society. What is witnessed in Awka town wherein the government and the residents are busy blaming themselves on the deplorable state of the town owing to the indiscriminate dumping of refuses and construction of building and makeshift stores

at every available space is a wild goose chase and dumb action that will proffer no solution. The residents and the government in Awka must work together in actualizing a sanitized environment in Awka town.

### **Pollution Haven Hypothesis**

Pollution Haven hypothesis suggests that industrial companies will attempt to avoid the cost of strict environmental regulations (and high energy prices) by locating production in countries where environmental regulations are very weak and not even applicable as Ofori (1999), Vanlauwe, Diels, Sanginga and Merck (2002), jointly expounded. This theory is developed by Chichilnisky (1994). Copeland and Taylor (1994) the proposed thus as classical “Pollution Haven Hypothesis” wherein developing countries may have lenient environmental regulations as a strategy to compete against low infrastructure availability in comparison to developed countries.

In lieu of the afore-exposed, it behooves that polluting industries will relocate to locations with less strict environmental norms. With this theory in mind; it becomes obvious why some industries that exudes materials that pollute the environment is more often than not located at areas that are equally not yet developed. The only solution to this is that every jurisdiction ought to start promulgating policies that are stringent regarding the sanitization, caring and reservation of the environment in order to forestall environmental pollution. The Government of Anambra state should stipulate very strict laid down norms or laws regarding the environmental sanitization of Awka town, of which defaulters should be arrested, charged to court and prosecuted accordingly.

### **The Concept of Ecological Sin**

Pope Francis published a post Synodal Apostolic Exhortation in lieu of the Synod held in Rome from 6th-27th October 2019; which was focused on the Amazon regions, captioned “*QUERIDA AMAZONIA*”. The significance of this encyclical letter is that the Pope appealed to all the people of God all over the world especially the Amazon regions comprising Brazil, Bolivia, Colombia, Ecuador, Guyana, Peru, Surinam, Venezuela and the territory of French Guiana; to awaken their affection and concern for “Land matters” which he described as “Ours” belonging to man: To value Land, and equally acknowledge it as a “Sacred Mystery”. He maintained that he dreams of an Amazon region that will maintain its natural ecological beauty.

In chapter three of this Apostolic Exhortation, he maintained that setting people free from various forms of bondage involves caring for the environment and defending it. He coined the word “Human Ecology”, and insisted that it is connected to “Natural Ecology”. Thus, the forest is not a resource to be exploited but a being or better various beings that mankind has to relate with. He affirmed that to abuse nature, in his words is to “abuse our ancestors, our brothers and sisters, creation and the creator; and to mortgage the future” (p.42). The peculiar discussions at this synod and the contents of *QUERIDA AMAZONIA* gave rise to the concept of Ecological sin.

The synod held in Rome in favour of the Amazon’s Roewe ((2020), exclaimed that the synod highlighted for the Roman Catholic church the many challenges facing the Amazon’s rainforest, one of the most critical ecosystems for sustaining life on this planet. The synod also made popular the concept of “Ecological sin”. Thus, at that synod’s gathering’s final document, setting forth the proposed definition of ecological sin, the synod participants described it in the original Spanish text as MCELWEE and ROEWE (2019) portrayed:

An action or omission against God, against others, the community and the environment ... It is a sin against future generations and manifests itself in acts and habits of pollution and destruction of the environmental harmony, transgression against the principles of interdependence and the breaking of



solidarity networks among creatures and against the virtue of justice. (p.1).

This definition unravels that polluting the environment indiscriminately with impunity creates disorder in the society; and it is a sinful act. Sin is derailing from God's precept; and anything that creates disorder intentionally in the society is an act of derailing from God's precept which is a sinful act. This work proposes that environmental pollution in Awka is equally a sinful act.

This work underscores that the idea of Ecological sin not known; A 1997 speech delivered by Ecumenical Patriarch Bartholomew popularly known as 'The Green Patriarch' gave a definition that gives the idea of ecological sin as Maros (2017), specified

It follows that to commit a crime against the natural world is a sin. For humans to cause species to become extinct and to destroy the biological diversity of God's creation, for humans to degrade the integrity of the earth by causing changes in its climate, by stripping the earth of its natural forests or destroying its wetlands, for humans to injure other humans with disease, for human to contaminate the earth waters, its land, its air, and its life with poisonous substances; all these are sins. (pp.164-165).

Connolly (2020), on his part while maintaining that ecological sin is necessary pointed out that, inconsequence, the development of the notion or concept of ecological conversion and by extension of ecological sin should not be regarded as a mere novelty, but rather perceived as a necessary and vital contribution to the future of humankind. Becker (2012), exclaimed that the Christian doctrine of originals can help clarify one's understanding of the present ecological crisis as he attempts to expose oenological sin. Thus, there are so many forces and factors which include social and economic, one's culture's pervasive confusion of material success with spiritual fulfillment, addiction to what one knows is destroying one and the totalitarian character of man's ecological mentality that attempts to pull man to pollute his environment. The truth remains that in the face of these pressures, environmental pollution is a choice. Prevailing circumstances ought not to lure anyone to err nor sin. Awka town residents must resist the pull by various national, perceived traditional, economic and mental stereotyped stance that pulls them to exploit the environment and resolve to maintain a clean, sanitized, well-harnessed and organized environment.

### **Causes of Environmental Pollution in Awka Town**

The environment does not just get polluted and gets degraded on it's own. In view of all that has been accrued from this work, environmental pollution in Awka Town is perpetrated via the following means:

1. The Igbo adage says "*Aruru ala gbaa afo, oghoro omenala*", that is to say that if a perceived evil act is frequently perpetrated by a large number of persons in a peculiar society, it becomes a tradition. It is as if polluting the environment has become a tradition in Awka town hence people even look the other way when someone is violating the norms of refuse disposal. For the fact that residents of Awka seldom condemn such acts amongst themselves, the pollution of the environment in Awka is always rife just as postulated in the Reasoned/responsible Action theory.
2. It appears that a good number of residents in Awka are not acquainted with the fact that they are an integral part of the environment wherein they reside. Hence the relationship must be one of mutual stance and not domineering. They are oblivious to the fact that the environment naturally pays back in the future any evil meted on it in the past. Ignorance of the fact that the environment must be protected, preserved and kept clean by mankind as the Divine Commands is making environmental pollution in Awka to be on the increase as realized by the Environmental Citizenship Theory and *LAUDATO SI*.

3. The inability to promulgate, maintain and sustain stringent policies in Awka environs by the government and the residents encourages environmental pollution in Awka. The existence of stringent policies or laws that will attract the arrest and prosecution of defaulters in lieu of environmental pollution in Awka will reduce to a large extent the exploitation of the environment in Awka. This of course is what the contents of pollution Haven Hypothesis postulates.
4. Man's egocentricism which breeds complacency, gullibility, and impulsive living encourages environmental pollution in Awka. Laziness is being endorsed by both government and the residents. The Anambra state water board that ensures pipe-borne water flows through the state is now defunct; the citizens are not complaining: The resultant effect is the mass production of water sachets popularly known as "Pure water". Not everyone can finance bore whole water reserves. The few that attempt to complain are seen as "odd persons and financially incapacitated"; everyone purchases pure water and the streets of Awka are littered with so many pure water sachets that rarely dissolve thus polluting the environment. A consumer society is being established and the average person in Awka town strives to feel in order not to be relegated to the background.
5. Indiscriminate construction of residential houses, buildings and makeshift stores without a proper long-term plan in perspective aids in the environmental pollution in Awka. Buildings, are constructed at every available space without proper drainage systems being constructed as well. Some of the residential areas in Awka town are quintessence of a Ghetto owing to lack of planning. One wonders if government estate managers exist at all in Anambra state. The streets are not properly planned especially within Ifite Awka, Okpuno, and inside the villages in Awka town.
6. The waste disposal truck operators in Awka are not constant with the prompt clearing of wastes. The Anambra State Wastes Management Agency (ASWAMA), is not prompt in doing its work of disposing refuse as and when due from refuse dump sites in Awka.
7. The sudden removal of the original refuse dump sites located at strategic areas in Anambra state as a result of the Anambra state government directive for them to be banned without arranging feasible alternative measures for waste disposal in Anambra state is another reason for escalation of environmental pollution in Awka town.
8. The population explosion in Awka due to the influx of more people from Northern parts of Nigeria owing to terrorism and for commence purposes as well is another reason for environmental pollution in Awka. The government in Nigeria seldom makes plans for such emergencies in Nigeria. The traditional looting of public funds can never allow them to put such plans in place. Thus, when such arises, it becomes extremely impossible to manage.

### **Dangers of Environmental Pollution in Awka**

Environmental pollution which is underscored in this work as indiscriminate dumping of refuse and wastes, dirty water and building and construction of residential houses and makeshift stores at undesignated places thereby making the environment dirty, unhealthy and the air polluted can result in the following dangers.

- **Health Risks and Epidemic Outburst:** The presence of Polycyclic Aromatic hydrocarbons (PAHs) in the Ecosystem (Environment), which are contaminants of interest can pollute the land and cause various illnesses. Arulu, Okoye, Abugu et al (2023), investigated the risk assessment of PAHs in borehole water near the unlined dumpsite in Agu-Awka; the dump site is an open/unlined dumpsite, the most common method of waste disposal in Nigeria due to poor budgetary allocation as they underscored: They discovered that the carcinogenic risk index through dermal contact exceeded the acceptable limit for adults and is at a tolerable limit for children, indicating potential threats to humans, with adults more susceptible to

cancer risks. PAHs according to them are organic compounds that have attracted global recognition because of their carcinogenic threats. Their finding thus posits that an adult can contract cancer through drinking water collected from a borehole located very close to an unlined refuse dumpsite. Okwuanaso, Enweani and Obeagu (2023), carried out an investigation to register the health risk involved and inherent in the dump sites in Awka environs pertinent to some individuals that make their living by foraging and packing the waste for survival. They discovered that the pathogenic nature of the organisms collected from 280 samples from the waste collectors isolated in their study indicates that the activities of scavengers and waste collectors pose a serious health risk to the public. Moreso, Ebuka and Chukwudi et al (2017), carried out a survey of refuse dumps in Enugu municipal for the presence of mosquito larvae and eggs, from March to August, 2015. Out of the twenty refuse dump sites from the five zones they studied, they observed that vectors were breeding heavily in all the dump sites. The major danger of environmental pollution in Awka is the health risks it poses and an impending epidemic unbreak. The government and the citizens cum residents of Awka should work in synergy to avert this as soon as possible.

- **Natural Disaster:** Environmental pollution in Awka can result in natural disasters such as erosions or earthquakes. Dr. Felix Odimegwu, the Anambra state commissioner for environment (cited by, Anaso 2023), described Awka town as the Gully Erosion Capital of Anambra, with over 1,000 active sites. The blockage of drainage pipes, gutters and waterways in Awka with refuse dumps will divert waters flowing via such means to the land and any available space thereby resulting in Gully Erosion. Presently there are heavy occurrences of Gully Erosion at Ekwueme Square premises, and Anambra state high court premises. Buildings may equally start collapsing as a result of such heavy gully erosion as witnessed at Ekwueme Square premises which have almost cut off the road connecting it to the state high court.
- **It makes the land unsuitable for Agriculture:** Some of the waste and refuse dumps at free lands within Awka town are hard that they take very long period of time to dissolve if at all they will; used tires waste, papers, polythene bags and thick paper bags can hardly dissolve. This makes land unfit for agriculture since they make it to lose its nutritious soil composition. It is obvious that the lands within Awka town do not yield bountiful harvests because a good part of it is contaminated.
- It makes the environment repulsive, repugnant and an eyesore.
- **A polluted environment can disorganise one's emotional control and mental stability.** Obiotika (2023), articulates that a good environment affects the following:
  - Maintaining a clean environment, reduces pollution, preserves our biosphere, protects endangered species, and helps preserve the earth's natural resources. In society, the state of cleanliness represents the mindset of its inhabitants. Cleanliness promotes mental clarity. A clean environment boosts our self-confidence ... when people live in a clean environment, they make life so safe, comfortable and enjoyable. People who work in cleaner environments are productive and always in a laughing mood. (p.1).

This posits that the reverse is evidenced in an unclean environment. Such environments that are polluted will be characterised by animosity, bitterness, unstable and unfocused mindset and all-round discomfort which can definitely affect one's output thus affecting negativity.

### **Solutions to the Environmental Pollution in Awka Town**

Indiscriminate dumping of refuse and lack of adequate planning of the estates before construction of residential buildings or makeshift stores and business outlets can still be controlled via the following means.

1. The government should seek other means of refuse disposal apart from house to houses collection and disposing at dumpsites, as well as incineration. The government can opt for recycling. Ezekeke (2023) pointed out that countries like China have crushed the mentality of complaining about “wastes” by turning such into mass income boosters”. He suggested that wastes can be used via tactics like incineration, pyrolysis and gasification to generate energy. This particular strategy as he maintained, is receiving the world’s attention due to an increase in climate change awareness. In addition to this, the major contributors of energy globally are locked in a war. This has led to an increase in demand for energy at a global level and thus an opportunity for Awka in Anambra state. The state government, can liaise with non-government organisation, (NGOs) from other countries to actualise this. This calls for sincerity, tenacity and consistency from the government.
2. Use of alternative friendly to plastic bags in business transactions: Iheukwumere Nkwocha, and Tonnie-Okoye (2019), suggested the use of alternative bags to plastic bags in business transactions in Awka such as Jute bags, paper bags, Bio-degradable plastic bags and reusable bags. Though these kinds of bags are not widely known, they can easily decompose when disposed at designated places. It must be noted that no matter how easy a bag container is to decompose, indiscriminate dumping of refuse at undesignated places will still result in environmental pollution as evidenced in this study. The problem with this suggestion is that a lot of people because of prevailing mindset are not yet willing to accept alternative bags as they noted in their study. However, it is a profitable suggestion to combat environmental pollution in Awka town.
3. The contents of *LAUDATO SI’* and the concept of ecological sin should be exposed, promoted and made available to the populace in Awka town: The church and the state should work together towards exposing to the populace in Awka that the environment is in the hands of mankind to protect and not to be exploited. They must be made to understand that exploiting the environment is against themselves (suicidal), a sin against fellow man in exposing them to health risks (murderous), and a sin against God (disobedience, pride and vain-glorification). Church leadership should treat this subsequently and often. This work appeals to Pope Francis to as a matter of urgency add the concept of ecological sin into the catholic catechism as he once proposed.
4. Estates in Awka should have in the original plan of the buildings, areas for solid waste dumps. This must be in place before undertaking such a big project that is pertinent to residential reserves. Okoye, Ahiadu and Okolie (2009), who carried out a study on household solid waste disposal in the public housing estates with the intention to make proposals for better solid waste disposal; were shocked to discover that most of the estates in Awka were constructed without having an adequate plan for disposal of refuse in them. The Makeshift plan that was put in place was merely on paper which appears to be an afterthought. Solid waste dumpsites should not be taken for granted. Proper plans must first be in place before undertaking any project pertinent to the building of residential estates.

### **Conclusion**

This study has exposed that environmental pollution in Awka can lead to outbreak of epidemics and is generally hazardous to residents of Awka. It is equally obvious that both the government and the citizens must work together to actualize a sanitized society. Irrespective of the fact that the incumbent government of Anambra state led by Prof. Charles Soludo is doing their best; they are expected to do more since environmental pollution has already eaten deep into the fabric of the societal stance of Awka town.

The government should ensure that all the specific departments in Anambra state in charge of refuse disposals should be effective and operational. Plans for the sanitation of Awka town should

not be just mere paperwork, it should be a living reality. The residents of Awka must be properly oriented and informed of any plan of change in subsequent strife to bring about adequate sanitary exercise in Awka. Residents should not be taken by surprise by imposing sudden policies that may even not have an alternative measure to contain the corollary effects that will ensue. The mindset of every individual in Awka should be geared towards keeping the environment clean.

### **Recommendation**

This work recommends that the government of Anambra state should ensure that the state estate management office is fully operational. They should be well-funded and equipped to be effective. The same applies to the environmental sanitary departments in Anambra state. Residential buildings should not be constructed indiscriminately as well as estate residential buildings. The estate management offices must always consider long-term effects with proper refuse disposal plans in place before approving any construction plan for buildings of any sort.

The government of Anambra state must be strict in arresting and prosecuting those that default laid down regimen on refuse disposal in Awka town. Thus, the plans already put in place by the ASWAMA should be empowered to be effective just as the government is equally making further plans to ensure a sanitized Awka city. This study appeals that the solutions proffered in this work and that of previous and subsequent researchers should be adopted and effected by the government of Anambra state. The citizenship studies in both primary and post-primary education sections must include orientation on keeping the environments clean. Parents at home should inculcate, cleanliness into their children and wards because cleanliness is next to Godliness.

Church leadership should go all out to inculcate ecological theological thoughts on their members. The residents of Awka should be exposed to the fact that keeping the surroundings clean is doing God's work. The government should not be left alone in this battle of saving Awka environment from decay. Church leadership should help the government in this strife since they are equipped with various doctrinal injunctions on ecology including *LAUDATO SI'* as well as many others. This work submits that if all the solutions and recommendations proffered therein are implemented, the aesthetic beauty of Awka town will be restored and the environment will become comfortable for all to reside.

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