Analysis of the Effectiveness of the Policy and Institutional Structures/Mechanisms for Environmental Management in Enugu State, Nigeria

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ABSTRACT

Nigeria is rapidly urbanizing and is forecasted to become the 3rd most urbanized nation by 2100. Expectedly, rapid urbanization presents challenges in many areas including the management of municipal services such as solid waste. This yawning failure is reflected in the poor quality of waste services across Nigerian cities. This study focuses on the analysis of the effectiveness of policy and institutional structures/mechanisms for environmental management in Enugu State. The specific objectives are to: identify and analyze the effectiveness of the policies through the performance of the institutions for environmental management and identify the shortcomings of the policies and constraints to the performance of the institutions. Data were generated by a field survey involving the administration of a structured questionnaire. Multistage and Random sampling techniques were used in the selection of three hundred and seventy-eight adult household heads and eleven staff both from the State Ministry of Environment and Mineral Resources and Enugu State Waste Management Authority (ESWAMA). Data were analyzed by descriptive statistics. The result shows that Removal and disposal of waste, vehicles and dead animals, cleaning of streets and sewage clearing and maintenance of disposable equipment where the roles played by ESWAMA; whereas urban sanitation, pollution control and impact assessment were the roles played by the Ministry of Environment and Mineral Resources. Problems identified among the staff against the performance of the institutions include; limitations of the legal framework, institutional bottleneck, corruption, inadequate of EIA, Inadequate of funds and Ignorance. The study recommends the review of the environmental policies and advises that the legal framework should be strengthened for the proper implementation of laws.

Keywords: *Policy, Environment, Waste Management, Pollution, Effectiveness, Institutional Structures.*

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INTRODUCTION

The usefulness of environment is indispensable and cannot be relegated. The inherent environment is an endowment of nature and a main determinant of life on earth. It is made up of four intertwined structures, namely: the air, the water, the land and the habitat (Kumarasamy *et al.,* 2004). It is a cornerstone for human existence and viability as well as provides all the necessary essential of life such as air, water, soil, food, energy, etc (UNDP, 2001). It also provides some essential service amenities such as climate regulation, flood control, natural habitat, and cultural services. In the early days of man the surroundings and its natural-born resources have rendered important role and continued to play necessary role in social and economic formation of the society. It is the root of universal earnings that must be sustainably guarded and managed. Prior to the evolution of industries, the rate at which our environment was being exploited was low due to low population and inexperience on the various uses of natural resources. The amount of waste generated by the society was small and biodegradable (Okafor, 2011).

But the need to provide man with more quantity and quality of essential goods and services for his survival, led to the concept of industrialization and urbanization.While industrialization give rise to employment opportunity for the jobless, supplies goods and services, increase the rate of urbanization through infrastructural development, it drops along its frontier some negative externalities otherwise known as environmental costs. Pollution is the deliberate or accidental contamination of the environment with waste from human and industrial activities.

According to J.H. price and French "pollution is the price of progress". They opined that pollution and development are inseparable since pollution is an offshoot of a development process.

The rapid growth of population and unplanned industrialization resulted to the major environmental problems in our society today which include pollution, deforestation, loss of bio-diversity, hazardous chemical and waste, soil erosion, land degradation and depletion of earth's natural resources(UNEP,(2005) and Chong,(2008)) . By 2050, it is projected that China, India and Nigeria would be the world's most populated countries, accounting for 37% (of the increase of nearly 2.5 billion people in the urban population by 2050) of global urban population. The growing population in Nigeria alone (the most populous African country) is expected to trigger regional concerns in areas of urbanisation, population flows, urban infrastructure and service delivery, food security, resource & wealth distribution, insecurity/conflicts, and environmental degradation; all of which have the capacity to impact the urban system. To say the least, there will be a significant increase in demand for municipal infrastructure and services delivery. It is therefore, particularly critical to begin to consider the mutually reinforcing fact of political economy and governance factors that will continue to affect the financing, provision and delivery of municipal infrastructure and services in Nigerian cities. Currently elsewhere, these factors are receiving increased attention regarding the ways in which they ultimately influence urban infrastructure provision and services delivery. Several empirical studies have been conducted on environmental hazards and the need for planning and control of the Nigeria environment such as flooding (Mba, 1996), biodiversity (Phil-Eze, 2001), soil erosion (Ofomata, 2001) and urban solid waste management (Omuta, 1988, Ajaka, 2001). The environmental problems are inter-related and inter-connected. There are interrelationship between biodiversity loss, desertification, and erosion, loss of soil fertility, diseases outbreaks and climate change (Karen, 1996; Jonathan, 2005; Rao, 2006; Joseph, 2009; Botkin and Keller, 2012).

From the view of Eneh (2007), it is necessary to manage those factors in man's physical environment which impose a dangerous consequence on his physical development, health and survival and this necessitates environmental management.
Since, environmental management aims to preserve the environment and protect its inhabitants from the various environmental hazards, the Nigerian government and several states therein have established different governmental authorities and agencies that would work hand in hand to ensure effective and efficient means of managing the environment at both federal and state level. There are policies and institutional structures/mechanisms put in place for proper management of the environment in the state. The policies, institutional structures and mechanisms include the following; **Enugu State Waste Management Authority which** has the responsibility to ensure effective and efficient collection, removal, process, treat and safety disposal of domestic, hospital, commercial, institutional and industrial waste and recycling of waste; Ministry of Environment which oversees about cleanness of the state and for monitoring and control of environmental issues; Town Planning Authority, this regulate the structures or type of building/gives approval. Others include; Ministry of Capital Territory, National Youth Service Corps (NYSC) with Partnerships with State Government, National Erosion and Watershed Management Project (NEWMAP), National Environmental Standards and Regulation Enforcement Agency (NESREA) and establishment of Environmental protection court for prosecution of defaulters.

By 2050, it is projected that China, India and Nigeria would be the world's most populated countries, accounting for 37% (of the increase of nearly 2.5 billion people in the urban population by 2050) of global urban population. The growing population in Nigeria alone (the most populous African country) is expected to trigger regional concerns in areas of urbanization, population flows, urban infrastructure and service delivery, food security, resource & wealth distribution, insecurity/conflicts, and Environmental degradation; all of which have the capacity to impact the urban system. To say the least, there will be a significant increase in demand for municipal infrastructure such as waste management facilities and services delivery. Recent research has shown that most of these facilities are not available or are in short supply and the Environmental Management Agencies are not discharging their duties effectively despite all government effort at reducing environmental problem did not yield tangible result as environmental problems still persist in every part of Nigeria of which Enugu state is not left out. It is therefore critical to analyze the effectiveness of this policy put in place by government and to also assess the impact of this policy on environmental management in Enugu state. The objectives of this study therefore include;
identify and analyze the effectiveness of the policies through the performance of the institutions for environmental management; identify the short comings of the policies and constraints to the performance of the institutions; and proffer suggestions/remedies towards proper and efficient environmental management

MATERIAL AND METHOD

The study area is Enugu State, Nigeria. Enugu is a State in Southern Nigeria. The State lies between latitude $5°56^1$N and 7^05^1N of the equator and longitude *$6°53^iE$* and 7^055^1E of the Greenwich meridian (Anyadike, *2002).* The State has land area of about 8,022.95km^2 with seventeen (17) local governments areas (Enugu State Agricultural Development Program) (ENADEP, *2008)* and population of about 3,257,298 persons (NPC, *2006).* The capital city has a population of 722,664 persons by 2006 census.

According to National Population Commission (2006) Enugu, the capital of Enugu state is made up of three local government areas namely: Enugu South, Enugu North and Enugu East with a total population of 198,032, 242,050 and 277,119 respectively. The state is predominantly rural and agrarian with about 68% of its working population engaged in farming, trading (18.8%) and services (12.9%) (Williams 2008).

SAMPLING TECHNIQUE

The first stage involved random selection of two layouts from each local government area.

In the second stage, two (2) streets were purposively selected from each layout making it a total of twelve (12) streets. From each of the streets, thirty two (32) respondents were sampled making a total of three hundred and eighty four (384) respondents. However, out of the three hundred and eighty four (384) questionnaires distributed to the respondents, a total of three hundred and seventy eight (378) of them were effectively filled and returned for analysis. Similarly, eleven (11) questionnaires were also distributed and all returned from eleven management staff of both the State Ministry of Environment and Mineral Resources and Enugu State Waste Management Authority (ESWAMA), making the total number of respondents to be three hundred eighty nine (389). Data for the study were collected through primary and secondary sources using a structured questionnaire. The 378 questionnaires that were returned from adult heads of the households and 11 questionnaires that were returned from both the management staff of Enugu State Waste Management Authority (ESWAMA) and State Ministry of Environment and Mineral Resources was what the researcher used to achieve the objectives of this study.

DATA ANALYSIS

The objectives of the study were achieved using descriptive statistics. The four-point likert-scale of strongly agree (SA: 4 point), Agree (A: 3 point), Disagree (D: 2 point) and strongly disagree (SD: 1 point) were used. The mean score for each respondent's option was obtained based on the four-point likert scale rating. 4+3+2+1 = 10/4 = 2.50. The mean score of the respondents based on the 4- point rating scale was computed as:

$$\frac{4+3+2+1}{4} = 2.50$$

RESULT AND DISCUSSION

Distribution of respondents (general public) according to their response towards the effectiveness of the activities of the institution (ESWAMA)

Table1 shows that the public strongly agreed that ESWAMA collects, removes, processes, treat and safely disposes of waste; remove and disposal of abandoned vehicle; removal and disposal of carcass of animals from public places and design, operate and maintain waste disposal facilities and also agreed that ESWAMA clean streets. Therefore, out of the eight (8) statutory responsibilities of ESWAMA, the general public gave a fair approval that, ESWAMA is effective in number: 1, 2, 3, 5 and 7 as shown in table1.

Table 1 Distribution of respondents (general public) according to their response towards the effectiveness of the activities of the institution (ESWAMA)

	Statutory Responsibilities	N	Mean	Decision
1)	Collect, remove, process, treat and safely disposed of waste	378	3.4101	**Accepted**
2)	Clean streets	378	2.5556	**Accepted**
3)	Removal and disposal of abandoned vehicle	378	2.6640	**Accepted**
4)	Clearing of sewage			
5)	Removal and disposal of animals from public places	378	2.0556	**Rejected**
6)	Cleaning, clearing, and maintenance of drainage system within the state	378	2.6303	**Accepted**
7)	Design, operate and maintain waste disposal facilities	378	2.1323	**Rejected**
8)	Control and keep close watch on all waste disposed system in the state	378	2.8519	**Accepted**
		378	2.3228	**Rejected**
Valid N		378		

Distribution of respondents (general public) according to their response towards the effectiveness of the activities of the Ministry of Environment and Mineral Resources

The table 2 shows that the public agreed that the institution is effective in Urban sanitation and beautification, pollution control, and in setting guide lines for environmental impact assessment (EIA) with mean score of 2.6640, 2.6217 and 2.5079 respectively and ineffective in others as indicated in the table below:

Table 2 Distribution of respondents (general public) according to their response towards the effectiveness of the activities of the Ministry of Environment and Mineral Resources

	Statutory Responsibilities	N	Mean	Decision
1)	Soil erosion control	378	2.4868	**Rejected**
2)	Urban sanitation and beautification	378	2.6640	**Accepted**
3)	Pollution control	378	2.6217	**Accepted**
4)	Urban sewage management and control	378	2.1958	**Rejected**
5)	Setting guidance for fumigation of premises	378	2.1534	**Rejected**
6)	Mitigation of climate change	378	1.9180	**Rejected**
7)	Regulation of outdoor advertisement	378	2.0450	**Rejected**
8)	Set guidelines for environment impact assessment (EIA)	378	2.5079	**Accepted**
9)	Supervise the activities of the forestry commission			
10)	Provide regulatory scheme for environmental protection and conservation	378	2.1005	**Rejected**
11)	Sensitization	378	2.1243	**Rejected**
		378	2.2698	**Rejected**
Valid N		378		

Distribution of respondents (management staff) according to their response on constraints to the performance of the institutions

The table 3 depicts that limitations of legal framework, institutional bottleneck, corruption, inadequacy of environmental impact assessment, inadequacy of funding and ignorance were major constraints affecting the performance of the institutions. It can be deduced that, without all these put in appropriate place at the appropriate time, the institutions cannot function effectively. Others are lack of working tools to carry out their duties very effective, Government interference when a high profile person default, Poor sensitization program and lack of basic infrastructures like access road to dump site by waste evacuation trucks

Table 3 Distribution of respondents (management staff) according to their response on constraints to the performance of the institutions

	Constraints	N	Mean	Decision
1)	Limitations of legal framework	11	3.4545	**Accepted**
2)	Institutional bottleneck	11	3.0909	**Accepted**
3)	Corruption	11	3.1818	**Accepted**
4)	Inadequacy of EIA	11	2.9091	**Accepted**
5)	Inadequacy of funding	11	3.3636	**Accepted**
6)	Ignorance	11	3.1818	**Accepted**
Valid N		11		

CONCLUSION

This study reveals the situation analysis of environmental policies and the institutional structures/mechanisms put in place for environmental management. It shows that the environmental policies were not followed and implemented to the latter. It also shows that the performance of the institutions were below average. These were attributed to the constraints faced by the

institutions. Therefore, this study recommends that the existing legal provisions should be reviewed and strengthened to accommodate and control the enormous problem of the environment caused by the human activities.

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APPENDIX

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Section A: Personal Data.

Please tick in (√) the appropriate column that gives true information about you

Sex: Male ☐   Female ☑

Marital Status: Single ☑   Married ☐

Age: Below 20 yrs ☐   21-41 ☑   42 – 65 ☐

Occupation: Traders ☐ Farmers ☐ Workers ☑ Students ☐
others ☐

Academic level: Primary ☐ Secondary ☐ Degree ☑
Postgraduate ☐

No formal education ☐

Religion: Christianity ☑ Muslim ☐ Traditional ☐ others ☐

Length of service: 0 -1 ☐ 1-2 ☐ 3 -4 ☑ 6 -7 ☐

Section B: Environmental Problems in the state.

SA   =   Strongly Agree

A   =   Agree

D   =   Disagree

SD   =   Strongly Disagree

(please, tick (√) as many as are applicable

Environmental problems	SA	A	D	SD
Air pollution			√	
Indiscriminate dumping of refuse		√		
overcrowding			√	
Poor urban housing		√		
Noise pollution		√	√	
Water pollution			√	
Land/Soil pollution			√	
Biodiversity loss			√	
Deforestation		√		
Erosion/flood			√	
High density of motor		√		
Vehicle		√		

1

Others specify: _____

SECTION C: Examine the effectiveness of the policies for environmental management through the performance of the institution with regards to their statutory responsibilities.

    i.   Enugu State Waste Management Authority (ESWAMA) Statutory responsibilities

performance	SA	A	D	SD
Collect, Remove, Process, Treat and safely disposed of waste		✓		
Clean streets		✓		
Removal and disposal of abandoned vehicle			✓	
Clearing of sewage			✓	
Removal and disposal of carcass of animals from public places			✓	
Cleaning, clearing and maintenance of drainage system within the state		✓		
Design, operate and maintain waste disposal facilities		✓		
Control and keep close watch on all waste disposed system in the state	✓			

    ii.   State Ministry of Environment and Mineral Resources

performance	SA	A	D	SD
Soil Erosion control		✓		
Urban Sanitation and Beautification		✓		
Pollution control		✓		
Urban sewage management and control		✓		
Setting guidance for fumigation of premises			✓	
Mitigation of climate change			✓	
Regulation of outdoor advertisement			✓	
Set guidelines for environmental impact assessment			✓	
Supervise the activities of the forestry commission			✓	
Provide regulatory scheme for environmental protection and conservation			✓	
Sensitization			✓	

2

umunevo

08109987042

182

Section A: Personal Data.

Please tick in (√) the appropriate column that gives true information about you

Sex: Male [√]   Female [ ]

Marital Status: Single [√]   Married [ ]

Age: Below 20 yrs [ ]   21-41 [√]   42 – 65 [ ]

Occupation: Traders [ ]   Farmers [ ]   Workers [ ]   Students [√]
others [ ]

Academic level: Primary [ ]   Secondary [ ]   Degree [ ]
Postgraduate [√]

No formal education [ ]

Religion: Christianity [√]   Muslim [ ]   Traditional [ ]   others [ ]

Length of service: 0 -1 [ ]   1-2 [ ]   3 -4 [ ]   6 -7 [ ]

Section B: Environmental Problems in the state.

SA   =   Strongly Agree

A   =   Agree

D   =   Disagree

SD   =   Strongly Disagree

(please, tick (√) as many as are applicable

Environmental problems	SA	A	D	SD
Air pollution	√			
Indiscriminate dumping of refuse			√	
overcrowding		√		
Poor urban housing	√			
Noise pollution		√		
Water pollution		√		
Land/Soil pollution		√		
Biodiversity loss				√
Deforestation				√
Erosion/flood				√
High density of motor		√		
Vehicle		√		

1

2

2. What are the expected outcomes of the policies?

i. *Effective management of waste*
ii. *Straightening and stabilizing a*
iii. *healthy environment*
iv.
v. *Raising high the confidence and trust the citizens have in the state govt.*

3. What structures/mechanisms have the institution put in place to achieve the policies?

i. *Procurement of Trucks & Equipment*
ii. *In-house training of staff*
iii. *Reasonable funding of Projects*
iv. *Creating an enabling environment.*
v.

4. What are the locations of coverage by the institution? *Entire state.*

5. What are the shortcomings of the policies?

i. *Non-Compliance*
ii. *Timely Implementation*
iii. *Regular funding*
iv. *Streamlining & improving the*
v. *Legislative structure & Laws.*

6. What challenges does the institution encounter in order to achieve the policies?

i. *Poor Implementation of legislation*
ii. *Behavioural attitude of its Citizens.*
iii. *Lack of manpower on the side of*
iv. *Security Agencies.*
v.

7. How was the institution found? *By Law*

SECTION D: Shortcomings of the policies and constrains to the performance of institution for environmental management.

	SA	A	D	SD
Limitations of legal frame work	✓			
Institutional bottleneck		✓		
Corruption		✓		
Inadequacy of Environmental Impact Assessment		✓		
Inadequacy of funding	✓			
Ignorance		✓		

Others specify: _____

4

1

Section A: Personal Data.

Please tick in (√) the appropriate column that gives true information about you

Sex: Male [✓] Female [ ]

Marital Status: Single [ ] Married [✓]

Age: Below 20 yrs [ ] 21-41 [✓] 42 – 65 [ ]

Occupation: Traders [ ] Farmers [ ] Workers [✓] Students [ ] others [ ]

Academic level: Primary [ ] Secondary [ ] Degree [✓] Postgraduate [ ]

No formal education [ ]

Religion: Christianity [✓] Muslim [ ] Traditional [ ] others [ ]

Length of service: 0 -1 [ ] 1-2 [ ] 3 -4 [ ] 6 -7 [✓]

Section B: Environmental Problems in the state.

SA = Strongly Agree ✓

A = Agree

D = Disagree

SD = Strongly Disagree

(please, tick (√) as many as are applicable)

Environmental problems	SA	A	D	SD
Air pollution		✓	✓	
Indiscriminate dumping of refuse			✓	
overcrowding			✓	
Poor urban housing				✓
Noise pollution				✓
Water pollution				✓
Land/Soil pollution				✓
Biodiversity loss				✓
Deforestation				✓
Erosion/flood		✓		
High density of motor		✓		
Vehicle		✓		

Others specify

SECTION C: Identify and describe the various policies and institutional structures/mechanisms in place for environmental management in the state.

1. What policies is this institution based upon?

   i. He tries to Identity Factors effected by Conflict that lies

   ii. ... It also includes organizational structure

   iii. Planning and resources for developing

   iv. Efficiently Conservation and management

   v. It's Category addresse buldozx water way

2

2. What are the expected outcomes of the policies?
i. *Improving the effectiveness of current Problems*
ii. *Expected magnitude of change impact*
iii. *Design Implementation strategies such as*
iv. *Sound policies programes*
v. *Assessing policy out comes social and political Biases*

3. What structures/mechanisms have the institution put in place to achieve the policies?
i. *Institutional and Cordination mechanisms*
ii. *Legal and Policy mechanisms for addressing*
iii. *Employment policy Implementation*
iv. *mechanisms across*
v. *Cordination mechanisms for development*

4. What are the locations of coverage by the institution?

5. What are the shortcomings of the policies?
i. *Strengths and weaknesses of fiscal*
ii. *monetary*
iii. *Supply*
iv. *Imitations of Adjustment Policies*
v. *Limitations of Current Policies of grounded*

6. What challenges does the institution encounter in order to achieve the policies?
i. *The evolution of Precurrent.*
ii. *Institutional Ishes and Public Policy.*
iii. *The seeks to ensure policy Continuity.*
iv. *The urban Institution policy give them a chance*
v. *To make their case*

7. How was the institution found?

SECTION D: Shortcomings of the policies and constrains to the performance of institution for environmental management.

	SA	A	D	SD
Limitations of legal frame work		✓		
Institutional bottleneck			✓	
Corruption		✓		
Inadequacy of Environmental Impact Assessment		✓		
Inadequacy of funding		✓		
Ignorance	✓			

Others specify:_____

5

1

Section A: Personal Data.

Please tick in (√) the appropriate column that gives true information about you

Sex: Male [✓] Female [ ]

Marital Status: Single [ ] Married [✓]

Age: Below 20 yrs [ ] 21-41 [✓] 42 – 65 [ ]

Occupation: Traders [ ] Farmers [ ] Workers [✓] Students [ ] others [ ]

Academic level: Primary [ ] Secondary [ ] Degree [✓] Postgraduate [ ]

No formal education [ ]

Religion: Christianity [✓] Muslim [ ] Traditional [ ] others [ ]

Length of service: 0 -1 [ ] 1-2 [ ] 3 -4 [ ] 6 -7 [✓]

Section B: Environmental Problems in the state.

SA = Strongly Agree

A = Agree √

D = Disagree

SD = Strongly Disagree

(please, tick (√) as many as are applicable

Environmental problems	SA	A	D	SD
Air pollution		√		
Indiscriminate dumping of refuse			√	
overcrowding			√	
Poor urban housing				√
Noise pollution				√
Water pollution				√
Land/Soil pollution				√
Biodiversity loss				√
Deforestation				√
Erosion/flood			√	
High density of motor		√		
Vehicle		√		

Others specify

SECTION C: Identify and describe the various policies and institutional structures/mechanisms in place for environmental management in the state.

1. What policies is this institution based upon?

Conflict that use

i.

ii. t tries to identify factors effected by

iii. its also includes the Organizational structure

iv. Planning and resources for developing

v. Efficiency, conservation and Management

This Category addresses buildings & water way.

2

2. What are the expected outcomes of the policies?
   i. Improving the effectiveness of current policies
   ii. Expected magnitude of change in impact
   iii. Design implementation strategies such as
   iv. Sound policies programmes.
   v. Assessing policy outcomes social and political biases

3. What structures/mechanisms have the institution put in place to achieve the policies?
   i. Institutional and Coordination mechanisms
   ii. Legal and policy mechanisms for addressing
   iii. Employment policy Implementation.
   iv. Mechanisms across.
   v. Coordination mechanisms for development

4. What are the locations of coverage by the institution?

5. What are the shortcomings of the policies?
   i. Strengths and weaknesses of fiscal
   ii. Monetary
   iii. supply
   iv. limitations of adjustment policies
   v. Limitations of current policies on grounded.

6. What challenges does the institution encounter in order to achieve the policies?
   i. The evolution of Procurement.
   ii. Institutional issues and public policy
   iii. The seeks to ensure policy continuity.
   iv. The Urban Institution policy give them a chance
   v. To make their case

7. How was the institution found?

SECTION D: Shortcomings of the policies and constrains to the performance of institution for environmental management.

	SA	A	D	SD
Limitations of legal frame work		✓		
Institutional bottleneck			✓	
Corruption		✓		
Inadequacy of Environmental Impact Assessment		✓		
Inadequacy of funding		✓		
Ignorance	✓			

Others specify:_____

They work together as govt agency not Partnership.

some level of Independence

PSP — Private sector Participation Program

Govt house

tax force

Section A: Personal Data.

Please tick in (√) the appropriate column that gives true information about you

Sex: Male [√] Female [ ]

Marital Status: Single [ ] Married [√]

Age: Below 20 yrs [ ] 21-41 [ ] 42 – 65 [√]

Occupation: Traders [ ] Farmers [ ] Workers [√] Students [ ] others [√]

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No formal education [ ]

Religion: Christianity [√] Muslim [ ] Traditional [ ] others [ ]

Length of service: 0 -1 [ ] 1-2 [ ] 3 -4 [ ] 6 -7 [ ]

Section B: Environmental Problems in the state.

SA = Strongly Agree √

A = Agree

D = Disagree

SD = Strongly Disagree

(please, tick (√) as many as are applicable

Environmental problems	SA	A	D	SD
Air pollution	√			
Indiscriminate dumping of refuse	√			
overcrowding	√			
Poor urban housing	√			
Noise pollution				
Water pollution	√			
Land/Soil pollution	√			
Biodiversity loss	√			
Deforestation	√			
Erosion/flood	√			
High density of motor	√			
Vehicle				
Others specify				

SECTION C: Identify and describe the various policies and institutional structures/mechanisms in place for environmental management in the state.

1. What policies is this institution based upon?

   i. safe Environment for Healthy living

   ii. ESWAMA information on Packaging of Refuse

   iii. Information on no dumping of refuse on water ways

   iv. Timely Evacuation of Refuse dumpsters

   v. Monthly sanitation exercise in the state

2

2. What are the expected outcomes of the policies?
   i.   Good health for productive citizenry
   ii. Decency and beautiful environment
   iii. Prevent pollution of water channels
   iv. To prevent disease outbreak
   v.   To cub mosquito spread and bushy surroundings

3. What structures/mechanisms have the institution put in place to achieve the policies?
   i.   Operations department
   ii. Abatement surveilance
   iii. Sanitation enforcement team
   iv. Sanitation legal court
   v.   Demand notice Team

4. What are the locations of coverage by the institution? Enugu urban, Nsuka urban, Agbaw, Obollo and ovi River

5. What are the shortcomings of the policies?
   i.   Grounded and Non-operational tipper and Trucks
   ii. No functional Hiluxes available
   iii. Poor mobilization of Staff
   iv. Political Interference in the functions of ESWAMA
   v.   A society that need compulsion rather than Instruction

6. What challenges does the institution encounter in order to achieve the policies?
   i.   Government responsibilities to EswAMA support is lacking
   ii. Enforcement staff are some strongly beaten up in the field
   iii. Monetary activity expenditure is not enough
   iv. A Greater number of communities still pollute the Water ways
   v.   Greater wrong Prephntin Profiling by ESIR - Revenu istitution

7. How was the institution found? Enugu state govt.

SECTION D: Shortcomings of the policies and constrains to the performance of institution for environmental management.

	SA	A	D	SD
Limitations of legal frame work	✓			
Institutional bottleneck	✓			
Corruption			✓	
Inadequacy of Environmental Impact Assessment		✓		
Inadequacy of funding		✓		
Ignorance	✓			

Others specify: _____

7

1

Section A: Personal Data.

Please tick in (√) the appropriate column that gives true information about you

Sex: Male [√] Female [ ]

Marital Status: Single [ ] Married [√]

Age: Below 20 yrs [ ] 21-41 [√] 42 – 65 [ ]

Occupation: Traders [1] Farmers [2] Workers [√] Students [4] others [6]

Academic level: Primary [6] Secondary [12] Degree [16] Postgraduate [√] [18]

No formal education [0]

Religion: Christianity [√] Muslim [2] Traditional [3] others [4]

Length of service: 0 -1 [ ] 1-2 [ ] 3 -4 [ ] 6 -7 [√]

Section B: Environmental Problems in the state.

SA = Strongly Agree √ 4

A = Agree 3

D = Disagree 2

SD = Strongly Disagree 1

(please, tick (√) as many as are applicable

Environmental problems	SA	A	D	SD
Air pollution	√			
Indiscriminate dumping of refuse			√	
overcrowding				√
Poor urban housing			√	
Noise pollution	√			
Water pollution		√		
Land/Soil pollution		√		
Biodiversity loss	√			
Deforestation	√			
Erosion/flood		√		
High density of motor		√		
Vehicle		√		

Others specify

SECTION C: Identify and describe the various policies and institutional structures/mechanisms in place for environmental management in the state.

1. What policies is this institution based upon?
   i. Establishment of ESWAMA – For Solid waste Management
   ii. Creation of Ministry of Environment – for monitoring
   iii. and control of Environmental issues
   iv. Creating of NENMAP – for erosion management and
   v. Control.
   Establishment of NESREA – for Environmental regulation and enforcement.

2. What are the expected outcomes of the policies?
   i. _The policies are centred on enforcing_
   ii. _Environmental Compliance, Because if_
   iii. _policies are not implemented, human_
   iv. _activities will debase the Environment._
   v. _To ensure Environmental Sustainability._

3. What structures/mechanisms have the institution put in place to achieve the policies?
   i. _Establishment of Enforcement Team_
   ii. _Embarking on Massive public awareness and_
   iii. _Sensitization program_
   iv. _Establishment of Clean Team and Sweepers_
   v. _Team to ensure Environmental cleanliness_

4. What are the locations of coverage by the institution? — _All round the state protential particularly at the Metropolies_

5. What are the shortcomings of the policies?
   i. _Poor funding of the policies by the Government_
   ii. _Inadequate support from Government_
   iii. _Internal influence by those in Authority (Corruption)_
   iv. _Poor Sensitization program_
   v.

6. What challenges does the institution encounter in order to achieve the policies?
   i. _Lack of Government support in terms of funding_
   ii. _Poor legal backup of the policies_
   iii. _Lack of adequate public Sensitization program._
   iv.
   v.

7. How was the institution found? — _It was found/established by the Government_

SECTION D: Shortcomings of the policies and constrains to the performance of institution for environmental management.

	SA	A	D	SD
Limitations of legal frame work	✓			
Institutional bottleneck		✓		
Corruption	✓			
Inadequacy of Environmental Impact Assessment		✓		
Inadequacy of funding	✓			
Ignorance		✓		

Others specify:

8

1

Section A: Personal Data.

Please tick in (√) the appropriate column that gives true information about you

Sex: Male ☐   Female ✓

Marital Status: Single ☐   Married ✓

Age: Below 20 yrs ☐   21-41 ✓   42 – 65 ☐

Occupation: Traders ☐   Farmers ☐   Workers ✓   Students ☐   others ☐

Academic level: Primary ☐   Secondary ☐   Degree ☐   Postgraduate ✓

No formal education ☐

Religion: Christianity ✓   Muslim ☐   Traditional ☐   others ☐

Length of service: 0 -1 ☐   1-2 ☐   3 -4 ✓   6 -7 ☐

Section B: Environmental Problems in the state.

SA   =   Strongly Agree

A   =   Agree

D   =   Disagree

SD   =   Strongly Disagree

(please, tick (√) as many as are applicable

Environmental problems	SA	A	D	SD
Air pollution	✓			
Indiscriminate dumping of refuse	✓			
overcrowding		✓		
Poor urban housing		✓		
Noise pollution	✓			
Water pollution		✓		
Land/Soil pollution		✓		
Biodiversity loss		✓		
Deforestation	✓			
Erosion/flood	✓			
High density of motor	✓			
Vehicle				

Others specify

SECTION C: Identify and describe the various policies and institutional structures/mechanisms in place for environmental management in the state.

1. What policies is this institution based upon?

i. Laws On Environmental Health

ii. Laws On waste Management

iii. Laws on deforestation

iv. Laws On Erosion Control

v. ....