

**A REVIEW OF THE TREE PLANTING COMPONENT OF  
THE IMO STATE CLEAN AND GREEN PROGRAMME IN  
OWERRI, NIGERIA**

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**ABSTRACT:** This paper reviews the tree planting component of the Imo State Clean and Green Programme implemented 16 years ago. This is done in the context of public participation and inter-regime sustainability. Using the case of Okigwe Road Owerri, the paper aims at establishing how much observed outcome conforms to the expectation of interspaced trees lining roadways after 16 years of programme implementation. The role of participatory appraisal, appropriateness of programme design elements, aesthetics in public consciousness and tree damage and destruction were investigated and the study was guided by Ajzen's theory of planned behaviour, Shwartz norm activation theory and Environmentally Responsible Behaviour theory of Hines and others. A survey of 133 randomly selected stakeholder including business owners, roadside artisans along the planted roadway and the general public was carried out using a structured questionnaire. Spearman's rank correlation (P) coefficient showed among others that acceptance of the type of trees used in the programme is positively related to a strong opinion to replace disfigured and cut trees. Pearson's chi-square showed only 18.6 percent chance of obtaining the collected data if the null hypothesis were true. The null hypothesis that there is no significant association between reasons the trees are disfigured and considerations made to allow the trees' survival was therefore affirmed. The results reflect indifference to tree planting outcomes in the public owing largely to public non-participation and non-involvement from project design to implementation. The need for public participation in design and execution of government environmental projects is highlighted by the paper.

**Keywords:** Tree Planting, Imo State Clean and Green Programme, Public Participation, Environmental Sustainability

## **INTRODUCTION**

Owerri became the capital of Imo State in the South Eastern part of Nigeria in 1976 when the State was created. Prior to that time, Owerri had featured prominently in the colonial enterprise which leveraged the area's location in the eastern heartland of Nigeria to reach surrounding areas. Owerri was pivotal to the administrative machinery as the District colonial office operated from that base. Colonial missionaries and later, expatriates in the oil industry added to the mix with Shell Oil Company prospecting operations in the region headquartered around Shell Camp, Owerri.

The colonial personnel brought to Owerri their taste of landscape design and horticultural appeal which remarkably featured native plant species. Columns of *Pentaclethra macrophylla* (oil bean) trees for instance lined roadways leading to Owerri from various places (Onwumerobi, 2012). Most of these plants did not survive the post colonial experience as modern interpretations of urban life among the local population negated the idea of urban afforestation. This study investigates the sustainability and public perception of the Imo State tree planting programme, with a specific focus on its outcomes 16 years post-implementation.

Public sphere symbolism of native plants has been one of unwanted conservatism and tradition (Azuwike, & Onyenechere, 2009). This may also explain the demise of the colonial legacy of native tree stocks in Owerri. It was not therefore strange that the Imo State Government (2007 to 2011) from inception in 2007 identified major shortfall in stock of urban trees in the capital city and need to augment it through massive tree planting. In the expanded environmental management programme that followed, described as 'Clean and Green Programme', tree planting was made a major component. This programme procured seedlings from horticultural and plant breeding agencies which were planted along major roads around Owerri until the programme came to suffer an abrupt setback at the demise of that administration in the year 2011. A review of the programme has become imperative given that it is now about 16 years since the programme began and twelve years since its cessation. Incidentally there are no blueprints for the programme specifying such best practices as periodic reviews.

### **The Problem**

At the level of civic culture and systems of accountability that obtains in Nigeria, public programmes and policies come and go while social learning from these programmes may be compromised through failure to carry out monitoring and evaluation. As such subsequent programmes may not avoid pitfalls that plagued past policies and programmes may not benefit from an improved knowledge base as has been canvassed elsewhere in Shabir (2023).

The present effort reviews the tree planting component of the clean and green programme of Imo State Government which was implemented twelve years ago. It looks at what it has achieved against the background of set targets. The paper looks at the problem of follow-up and maintenance in the execution of government programmes, particularly in an inter-regimen transition context identified as problematic (Warmate, 2021). When programmes are executed, they may be received as Government projects without a sense of ownership by the people. This may affect public attitude of care. Where the programme is poorly sold, sabotage may follow. The paper investigates to what extent the public has worked against the objectives in the post project delivery period and what effects this has produced on the planted trees. In all, efforts are made to establish what difference participatory appraisal in the programmes design would have made.

The paper aims at establishing how much observed outcome of the tree planting component of Imo State Clean and Green programme conforms to the expectation of interspaced trees lining roadways, 16 years after implementation.

Objectives include: To,

1. determine the role of participatory appraisal in the tree planting component of clean and green programme.
2. assess appropriateness of elements of the programme design such as choice of trees and their distance to buildings.
3. appraisal of trees-themed aesthetics in public consciousness.
4. assessment of tree damage and destruction.

It addresses the questions

1. How much was the public involved in the programmes?
2. How appropriate is the choice of tree types and distance to buildings.
3. How much of planted trees survived?
4. How much of the planted trees are disfigured by the public?
5. What reasons are there for removal of the trees?
6. What reasons are given for disfiguring the trees?
7. What compelling factors enhanced tree survival?

### **Theoretical Framework**

Government-delivered programmes such as tree planting interventions are highly subject to human agency. Human efforts might be positively applied to nurture it or negatively towards sabotaging the objectives. The choice of reaction to an environmental programme is a matter of behaviour largely grouped under environmental behaviour. Several theories in environmental behaviour are found to be relevant to a discourse on uptake or otherwise of tree planting campaign by the beneficiary public. Aspects of public behaviour can prove decisive for sustainability of the programme.

Theory of planned behaviour (Ajzen, 1991) focuses on the role of individual costs and benefits in behavioural scenarios. People will key into a beneficial public programme if they do not consider their personal sacrifice to be too prohibitive; and if they consider personal gains substantial. Favourable environmental behaviour exists when intention to act meets favourable objective situational factors. This theory aligns with an earlier one: Protection Motivation Theory (Rogers, 1975) which holds that people consider individual and collective costs and benefits of behaviour; and are inclined to protecting themselves from fear elements. The individual – collective dichotomy tends to be situated within Garret Hardin's theory of Tragedy of the Commons (1968). In this context, common environmental facilities such as public trees may be subject to abuse due to governance vacuum and incompatible private drives.

A sense of civic duty and enlightenment may also prove critical in beneficial environmental behaviour. The Norm Activation Theory (Shwartz, 1977) for instance holds that pro-environmental actions follow from the activation of personal norms reflecting feelings of moral obligations to perform or refrain from actions. By extension, behaviour choices are defined by pride and guilt. Can people be deterred by guilt to spare government-planted trees? What enlightenment levels are required for this? It is only the person with awareness of ecological ethics and civic duty that may reckon with guilt. This brings this discussion to the Value-Belief-Norm theory (Stern, 1999). This theory holds that values and ecological worldviews are critical to problem awareness. People at the lower end of values may not appreciate trees beyond their utilitarian appeals. Stern (1999) follows in the tradition of

Behavioural Change theory (Hungerford and Volk, 1990) which asserts that if people were better informed, they would become more aware of environmental problems and would be motivated to behave in an environmentally responsible manner. Environmentally Responsible Behaviour theory (Hines, Hungerford and Tomera, 1987) had earlier held that adoption of a behaviour is a function of the variables: intention to act, locus of control, attitudes, sense of personal responsibility and knowledge.

The various theories affirm that people work within the constraints of their available knowledge. In other words, the decisions they take and their general environmental behaviour is grounded in what they consider rational thought as held in the Reasoned/Responsible Action theory (Ajzen & Fishbein, 1980). The environmental citizenship model (Hungerford and Volk, 1990) reduced the motivations for environmental action by the citizenry to knowledge or awareness, ownership or commitment and empowerment or locus of control. Where programmes are essentially top-down, ownership and knowledge among the citizenry may be poor leading to perceptions of lost control.

Success or failure of environmental programmes may have to reckon with the postulations of goal-framing theory (Lindberg & Steg, 2014) on the goals that frame the way people process information and act upon it. The goals might have implications for public co-operation on a Government-sponsored environmental programme. These include the hedonic goal – ‘to feel better right now’; the gain goal – ‘to guard and improve one’s resources’ and the normative goal – ‘to act appropriately’. These three goals seem to jostle among themselves for dominance in the case of public attitude to the Government-planted trees under study. In Kenya, success was recorded in the massive tree planting campaign led by Wangari Maathai because the mobilized women owned the project and bought into the vision (Maathai, 2003). Social context for implementation of public programmes and the civic element of participation are evidently important.

## **METHOD**

The research is based on field investigation of trees planted in the period between 2007 and 2011. The surviving trees are about 16 years of age in the year 2024. They have been identified using the records in the Environmental Transformation Commission (ENTRACO) which is the agency that oversaw the implementation and which has continued to implement such campaigns.

Photographs of some of the trees or whatever is left of them have been taken for analysis. The trees are found along major roads in Owerri Metropolis such as Egbu Road, Okigwe Road and World Bank Housing Estate Road. This paper is on the experience of Okigwe Road.

Survey of 133 stakeholders which include households and business owners along the roadway, roadside artisans without shops along the planted roadway and the general public was carried out. These stakeholders were randomly selected following the numbering of existing and felled trees and blind picking from the random numbers placed in a container. Respondents are made up of 89 males and 44 females. Survey was based on a structured questionnaire with respondents selected with regard to specific trees (within 10 meters of each tree). The questionnaire is structured with close-ended options and it had to be presented for reliability by administering it in a pilot survey. The output has been analyzed using SPSS. The IBM version 21 was applied in statistical analysis for the study using Spearman’s rank

order correlation. Spearman's rank order correlation is applicable in the study because it measures the level of relationship between ranked variables in ordinal scale. In order to assess the relationship between variables under tree planting campaigns (TPC), 10 applicable variables were subjected to Spearman's rank order correlation (TC P1, TPC 2, IPC3, TPC 4, TPC5, TPC6, TPC7, TPC8, TPC9 and TPC10). The formula for calculating Spearman's rank order correlation (p) coefficient is stated as:

$$\text{Spearman's } p = \frac{6\sum([rg(Xi) - rg(Yi)]^2)}{n(n^2 - 1)} = \frac{6\sum di^2}{n(n^2 - 1)} = \dots 1$$

Where:

rg(xi) = rank for each observation of the X variable.

rg(Yi) = rank for each observation of the Y variable.

di<sup>2</sup> = difference between the two ranks for each observation.

n = number of observations

The outcome of Spearman's p coefficient ranges between -1 to 1; a co-efficient close to -1 implies a strong negative correlation and a co-efficient close to 1 indicates that there is a strong positive correlation. Similarly, a co-efficient close to 0 indicates little or no correlation between the bivariate entities.

## RESULTS

Spearman's rank correlation coefficient of the ten variables (a) Involvement in tree planting (b) Trees as a good idea (c) Appropriateness of 'tree to building' distance (d) Appropriateness of tree typology (e) Sanctions for those disfiguring/cutting down trees (f) Chances trees will be kept if they were fruit yielding (g) Trees as source of nuisance (h) Need to replace disfigured/felled trees (i) Need for the trees (j) Importance of road/neighbourhood beauty.

Responses to these variables had come in a 5-point likert scale from strongly Disagree to Strongly Agree. The correlation yielded the following table of values.

**Table1: Spearman's correlation for variables of Tree planting campaigns**

| Coefficient | TPC1  | TPC2  | TPC3  | TPC4    | TPC5  | TPC6   | TPC7    | TPC8    | TPC9   | TPC10 |
|-------------|-------|-------|-------|---------|-------|--------|---------|---------|--------|-------|
| TPC1        | 1.000 |       |       |         |       |        |         |         |        |       |
| TPC2        | .132  | 1.000 |       |         |       |        |         |         |        |       |
| TPC3        | -.096 | .184* | 1.000 |         |       |        |         |         |        |       |
| TPC4        | .165  | .033  | -.003 | 1.000   |       |        |         |         |        |       |
| TPC5        | .003  | .095  | .120  | -.129   | 1.000 |        |         |         |        |       |
| TPC6        | -.051 | .048  | -.165 | .055    | .051  | 1.000  |         |         |        |       |
| TPC7        | -.053 | -.161 | -.020 | -.285** | .215* | -.159  | 1.000   |         |        |       |
| TPC8        | .117  | .027  | -.039 | .412**  | -.125 | .107   | -.340** | 1.000   |        |       |
| TPC9        | .006  | .045  | .037  | -.115   | -.047 | .043   | .245**  | .188*   | 1.000  |       |
| TPC10       | -.105 | .062  | .207* | -.155   | .030  | -.221* | .319**  | -.260** | .235** | 1.000 |

\* = significant; p ≤ 0.05; \*\* = significant; p ≤ 0.01. Source: Author

No correlation is indicated by a co-efficient of zero (0); Perfect correlation is indicated by a coefficient of -1 or + 1; weak correlation is indicated by a coefficient of 0.1 to 0.3 or 0.1 to -0.3; Moderate correlation is indicated by a co-efficient of 0.4 to 0.6 or -0.4 to -0.6; while strong correlation is indicated by 0.7 to 0.9 or -0.7 to -0.9.

The results show there is no strong negative or positive relationship between any two of the ten variables. There is also no perfect correlation between any two variables. There are however cases of no correlation, moderate correlation and weak correlation between pairs among the ten variables.

### **Weak Variables**

#### **Weak Negative Variables**

1. Var. 1 and var 10. The more people were involved in tree planting programme, the less they consider the aesthetic goals of urban beautification unimportant.
2. Var. 2 and var. 7. The more respondents consider trees a good idea, the less they see the trees as a source of nuisance.
3. Var. 3 and var. 6. The more people consider the distance between the trees and buildings as appropriate, the less the chances they will keep the trees if they were fruit yielding.
4. Var. 4 and var. 5. The more appropriate the typology of trees used in the programme is considered the fewer acceptances of sanctions for those disfiguring or felling trees.
5. Var. 4 and var. 7. The more appropriate the typology of trees used in the programme is considered, the less trees are seen as sources of nuisance.
6. Var. 4 and var. 9. The more appropriate the typology of trees used in the programme is considered the less perception of the trees as needless.
7. Var. 4 and var. 10. The more appropriate the typology of trees used in the programme is considered the less disagreement about the imperative of neighbourhood beauty.
8. Var. 5 and var. 8. The stronger the support for sanctions on those disfiguring and cutting trees, the weaker the support on replacing the disfigured/cut trees.
9. Var. 5 and var. 9. The stronger the support for sanctions on those disfiguring and cutting trees, the weaker the argument against the imperative of having the trees.
10. Var. 6 and var. 7. Readiness to keep trees if they were fruit yielding goes with perception of the trees as source of nuisance.
11. Var. 6 and var. 10. Readiness to keep trees if they were fruit yielding goes with a played down importance of neighbourhood beauty.
12. Var. 7 and var. 8. The trees are considered more of a nuisance where there is little support for replacement of cut or disfigured tree.
13. Var. 8 and var. 10. The opinion to replace disfigured and felled trees go with less compulsion in playing down importance of street/neighbourhood beauty.

#### **Weak Positive Correlation**

##### **Variable 1 and other variables**

Greater involvement of the public in tree planting programme (Var.1) goes with

- a. Greater perception of goodness in the idea of trees in the urban space (var. 2).

- b. Acceptance of the typology of trees as appropriate (Var. 4).
- c. Acceptance of need to replace disfigured or cut trees (var. 8).

#### **Variable 2 and other variables**

Considerations of the trees as a good idea (var. 2) goes with acceptance of the tree to building distance as appropriate (var. 3)

#### **Variable 3 and other variables**

Considerations of the tree to building distances as appropriate (var. 3) go with

- 1. Support for sanctions against those disfiguring/felling the trees (var.5)
- 2. Perception of neighbourhood beauty as not very important (var. 10)

#### **Variable 6 and other Variables**

Acceptance to keep the trees if they were fruit yielding (var. 6) goes with strong opinion to replace disfigured/cut trees (Var. 8).

#### **Variable 7 and other variables**

Perception of trees as a nuisance (var. 7) goes with

- 1. Support for sanctions against those disfiguring/felling trees ((var. 5).
- 2. Opinion about marginality of the trees value (little or no need for them) (var. 9).
- 3. Disregard for importance of roads or neighbourhood beauty.

#### **Variable 9 and others**

Opinion about marginality of the trees value (little or no need for them) Var. 9 goes with

- i. Acceptance of need to replace cut and disfigured trees (var. 8)
- ii. Disregard for beauty of the road and neighbourhood (var. 10)

#### **Moderate Correlation (Positive)**

#### **Variable 4 and Variable 8**

Acceptance of the appropriateness of the type of trees used in the programme (Var. 4) goes with a strong opinion to replace disfigured and cut trees.

#### **Descriptive Statistics**

#### **Trees Removal**

The reasons given for removal of the Government-planted trees are as shown on Table 2

**Table 2: Frequency of reasons for removing the trees**

|                               | Frequency  | Percent      | Valid Percent | Cumulative Percent |
|-------------------------------|------------|--------------|---------------|--------------------|
| Blocking business premises    | 40         | 30.1         | 30.1          | 30.1               |
| Touching public facilities    | 42         | 31.6         | 31.6          | 61.7               |
| Causing nuisance              | 22         | 16.5         | 16.5          | 78.2               |
| Defacing building/roof damage | 13         | 9.8          | 9.8           | 88.0               |
| No utilitarian value          | 5          | 3.8          | 3.8           | 91.7               |
| Timber/fuelwood sourcing      | 8          | 6.0          | 6.0           | 97.7               |
| Risk of blowdown in high wind | 3          | 2.3          | 2.3           | 100.0              |
| <b>Total</b>                  | <b>133</b> | <b>100.0</b> | <b>100.0</b>  |                    |

The trio of blockage of business premises, unhealthy contact of trees with public facilities such as electric cables and sundry nuisance cumulatively dominate reasons for removing the trees at 78.2 percent. Reasons such as risk of blow down and timber/fuelwood sourcing are highly marginal with a total contribution of 8.3 percent.

### **Disfiguring of Trees (Pruning)**

Disfiguring or pruning the tree is related to total removal of the trees. At times it is a prelude to total removal of trees. The reasons for disfiguring the trees are as shown in Table 3

**Table 3: Frequency of reasons the trees are disfigured (pruned)**

|                                       | Frequency  | Percent      | Valid Percent | Cumulative Percent |
|---------------------------------------|------------|--------------|---------------|--------------------|
| Clear the electric line               | 50         | 37.6         | 37.6          | 82.7               |
| Remove damaging contact with building | 18         | 13.5         | 13.5          | 96.2               |
| Eliminate contact with building       | 5          | 3.8          | 3.8           | 100.0              |
| <b>Total</b>                          | <b>133</b> | <b>100.0</b> | <b>100.0</b>  |                    |

Clearing electric lines is the modal reason given by 37.6 percent. This speaks to the highly scanty consideration for public infrastructure in the tree planting programme. It is worthy of note that the electric cables were there before planting took place. Plants lofty growth may not be factored at the moment of planting when they may be merely seen as tiny seedlings.

### **Considerations to Allow Trees' Survival**

Trees, though seen as source of nuisance are allowed to survive in consideration of certain factors as shown in Table 4



**Table 4: Frequency of consideration to allow the trees' survival**

|                            | Frequency | Percent | Valid Percent | Cumulative Percent |
|----------------------------|-----------|---------|---------------|--------------------|
| The shed they provide      | 82        | 61.7    | 61.7          | 61.7               |
| Platform provided by trees | 14        | 10.5    | 10.5          | 72.2               |
| Spacious surroundings      | 4         | 3.0     | 3.0           | 75.2               |
| Business under the trees   | 33        | 24.8    | 24.8          | 100.0              |
| <b>Total</b>               | 133       | 100.0   | 100.0         |                    |

The major factor considered to allow trees' survival is the shed they provide according to 61.7 percent.

Trees are at a paltry 3.0 percent allowed where the ambience is spacious.

#### **Association between Reasons the Trees are Disfigured and Considerations to Allow the Trees Survival**

The null hypothesis: there is no significant association between reasons the trees are disfigured (pruned) and factors considered to allow the trees' survival was subjected to a chi square test for association.

The ensuing values are shown on Table 5

**Table 5: Reasons the trees are disfigured (pruned) \* consideration to allow trees' survival Crosstabulation**

|  |  |                | What was considered to allow the tree's survival? |                            |                       |                          | Total |
|--|--|----------------|---|----------------------------|-----------------------|--------------------------|-------|
|  |  |                | The shed they provide                             | Platform provided by trees | Spacious surroundings | Business under the trees |       |
| <b>Reasons the trees are disfigured (pruned)</b> | <b>Let in more sunlight/visibility</b>       | Count          | 37  | 5                          | 2                     | 16                       | 60    |
|  |  | Expected Count | 37.0  | 6.3                        | 1.8                   | 14.9                     | 60.0  |
|  | <b>Clear the electric line</b>               | Count          | 32  | 4                          | 1                     | 13                       | 50    |
|  |  | Expected Count | 30.8  | 5.3                        | 1.5                   | 12.4                     | 50.0  |
|  | <b>Remove damaging contact with building</b> | Count          | 10  | 5                          | 0                     | 3                        | 18    |
|  |  | Expected Count | 11.1  | 1.9                        | 0.5                   | 4.5                      | 18.0  |
|  | <b>Eliminate contact with building</b>       | Count          | 3   | 0                          | 1                     | 1                        | 5     |
|  |  | Expected Count | 3.1   | 0.5                        | 0.2                   | 1.2                      | 5.0   |
|  | <b>Total</b>                                 | Count          | 82  | 14                         | 4                     | 33                       | 133   |
|  |  | Expected Count | 82.0  | 14.0                       | 4.0                   | 33.0                     | 133.0 |

With a Pearson's chi-square value of 12.519 and a degree of freedom of 9, significance (p-value) is 0.186. There is 18.6 percent chance of obtaining the collected data if the null

hypothesis were true. Here, the result is not statistically significant. The data does not provide sufficient evidence to warrant the rejection of the null hypothesis. The null hypothesis that there is no significant association between reasons the trees are disfigured and considerations made to allow the trees survival is therefore affirmed.

### **Trees in Descriptive Statistics**

Observed statistics on the planted trees show data as presented in Table 6.

**Table 6: Statistics on Trees**

| <b>Parameters</b>              | <b>Observed Value</b>                               |
|--------------------------------|---|
| The distance to the major road | Range of 1 meter to 4 meters                        |
| Tree distances apart           | 20 meters to 30 meters                              |
| Survival rate                  | 6 out of 50 or 12 percent                           |
| Best section of tree survival  | Orji Youth Bus stop to Orji Primary School Bus stop |
| Trees disfigured/pruned        | 5 out of 10 or 50 percent of surviving trees        |

Source: Authors' fieldwork, May, 2024

A good number of the trees have been reduced to stump. An example is the one by the gate of First Bank Building which is here pictured.



**Plate 1. Logs of felled tree components of the programme in front of First Bank offices, Okigwe Road, Owerri.**

Source: Authors' fieldwork, June, 2024

In other places, even the stump has been removed. The best expression of tree survival is as pictured on Plate 2.



**Plate 2: The best expression of the original plantings that have survived on a section of the Okigwe Road**

Source: Authors' fieldwork, June, 2024

Trees are disfigured for many reasons as shown in the Plate 3



**Plate 3: Heavily pruned tree under the High tension electric cable**

**Source: Authors' fieldwork, June, 2024**

Another is seen as a nuisance by wood dealers around the Uratta/Mbieri intersection on the Okigwe Road as shown on Plate 4.



**Plate 4. Tree in the ‘Ogboshishi’ wood market seen as nuisance by traders.**

**Source: Authors’ fieldwork, June, 2024**

Where the trees get a good ambience, free from pressure of infrastructure and humans, they develop to the form shown in the plate 5.



**Plate 5: Specimen of a well developed tree among the planted trees, near 7up Bottling Company**

**Source: Authors' fieldwork, June, 2024**

Along sections of the road, tree survival has not been a uniform spatial experience. Vulnerabilities vary and that comes from a diverse survival predictors.

## **DISCUSSION**

There was no correlation between respondents' involvement in the tree planting programme and variables such as views on sanctions for disfiguring or cutting trees; chances that people will keep the trees if they yielded fruits, rating of nuisance value of trees and perceived need

for the trees. It does appear that non-involvement of the public in the programme where this is the case obviates their interest in evaluating the impact of the programme in diverse ramifications. In line with the US EPA, public participation gives full consideration to public input in making decision. It also creates better deeper understanding of situation, problems and issues (UMN.edu). The public fails to galvanize an opinion on ethics of sanctions for abuse of the trees reflective of their involvement or lack of it. Arnstein's (1969) ladder of citizens' participation shows that extent of participation varies ranging from sheer passivity to in-depth involvement. The findings show the least level of participation which Arnstein takes to be non-participative characterized by manipulation and therapy. The next level has tokenism involving informing, consultation and placation while the highest levels of participation known as citizens' power has partnership, delegated power and citizen control. From this, it is clear that participation is not a binary. It is a spectrum where people can fall at one point or the other on a participation gradient.

That reasoning applies to inducement into adoption of the trees based on utilitarian derivations from them; the nuisance value of the trees and perceived need for them. Existence of no correlation between other elements of sustainability of the programme and the key element of public involvement/participation indicates the primacy of public involvement in the overall sustainability appraisal of environmental programmes.

The rating of the soundness of the tree planting programme as an idea did not correlate with tree typology; civic concerns of deployment of sanctions to deter tree abusers; chances of keeping the trees based on fruit productivity (utilitarian biases); need for the trees, assessment of added neighbourhood beauty and replacement of lost trees. The public is not interested in the aesthetic and other dimensions of the programme and whatever rating the tree planting programmes gets from the public is neither hinged on utilitarian implications of maintaining the trees nor the aesthetic. Beyond these two therefore lay other indices of assessment. There are other indices of assessment. The case of Vietnam shows that while the country experiences improvement in forest cover from households-led tree planting campaigns, sustainability is not envisaged in the light of poor direct household benefit from the trees (McElwee & Nghi, 2021).

Need to replace lost trees, perceived need for the trees', trees nuisance factor and appropriateness of tree typology remarkably has no correlation with distance between trees and buildings. The matter of appropriate setback to buildings is interestingly not a factor respondents associate with tree nuisance, tree replacement and typology. Hence whether to replace lost trees or not and whether to opt for utilitarian trees or remain with the non fruiting species in use has not been influenced by discomfort or otherwise presented by proximity of the trees to the living or work space. This runs against the grains of findings in Lagos where respondents claimed lack of benefits from planted trees as they bore no fruits. They preferred trees that produce both shelter and fruits (Babalola, 2020). The disinterest in specie type and utilitarian function of the trees says a lot about the major public disapproval of the trees' impedeance of commercial ventures which however are in breach of planning rules and road verge integrity.

The affirmation of the null hypothesis of no association between reasons the trees are disfigured and considerations made to allow the trees survival is in focus. People are simply not sold on benefits of projects when their choices have been neglected. This aligns with the findings of Peng (2024) in Detroit, USA where a quarter of 7,425 residents who were to get

free street trees from a non-profit declined the offer. A history of neglect of the people in decision making around tree types, locations to plant trees and reasons for planting the trees haunted the tree planting projects. People wanted larger latitude of control and this is reinforced by sad experiences of large trees that were poorly cared for by government agencies. The people's desire of manageable small trees therefore comes to be directly opposed by Government's desire for large trees that play greater environmental roles. This is a major source of conflict and impetus to withhold buy-in.

Contrary to the case study, where residents may disfigure trees or remove entire trees as a form of personal agency and get away with it, in the United States as recounted by residents (Peng, 2014) those who happen to have a tree they do not like in front of their property are helpless and have to apply for permission from the State. They may spend thousands of dollars and time that may go beyond two decades to have the tree removed by the Government. Comparative agency sees the developing world residents doing more in terms of self-help to manage trees. In fact they readily oppose government will and designs in that process. Interestingly they largely escape the consequences of insubordination and sabotage which points to weakness of state institutions.

### **Conclusion**

The paper has investigated government delivery of tree planting projects with particular reference to urban trees in Owerri using the case of trees planted 16 years ago. Many of these trees have been cut down by members of the public. Many have been pruned and disfigured while some are still in good standing. The statistics are grim with 12 percent of the trees surviving and 50 percent of that figure already disfigured. It was found that appropriateness of the types of trees used in the programme positively correlates with a strong opinion to replace disfigured and cut trees. This goes to show that public participation in the tree planting would have made a great contribution in the programme's sustainability.

On the ladder of citizens' participation the public involvement in this programme comes at the lowest rung. This informs absence of association between reasons the trees are disfigured and considerations made to allow the trees survival. It speaks to a general deplorable public attitude to whatever is conceived to be government's property and therefore no one's property. The issues are about the social psychology of vandalism of public property (Government property). The fact of civic breakdown is involved in taking out angst against government on government initiatives and facilities.

The paper raised the matter of the entire issues of public administration involved in poor oversight of relevant government agencies on government projects and inter-regime continuity of projects. There is administrative failure in individuals reconditioning government-provided facilities without recourse to relevant regulatory agencies. The fact that publicly-provided trees can be openly vandalized by non state actors without consequences is deplorable. The perception by the offending public that no wrong has been committed reinforces the behaviour and is reflective of the lack of clearly spelt out punishment for such acts of sabotage on public property.

Administration of complaints and permissions for removal of trees has largely been inexistent. It needs to be strengthened in regard to forestry laws. Removal of trees has to be in



overriding public interest after evaluation, much as trees exist in promotion of overriding public interest as regards the amenity they provide.

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