PUBLIC GOODS PROVISION: INFORMAL RESPONSE TO GOVERNMENT FAILURE IN THE CITIES OF NIGERIA

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Abstract
The traditionally accepted paradigm in the developed and developing countries assumes that the provision of urban public goods is best left in the hands of government agencies. This belief is manifested in the creation of different government agencies charged with the provision of a number of urban public goods namely open space, parks, water, electricity security and management of solid waste. The performance of some of these government agencies has at best been described as ordinary. Using empirical data from three cities in Nigeria and applying insights from the theory of collective action and private governance this paper demonstrates the failure of the generally accepted paradigm while showing the role of private informal street and neighbourhood associations in the provision of public goods in the urban areas of the developing world.

Keywords: Club goods, Common collective problems, Institutional theory.

1. INTRODUCTION

Externalities exist as a result of private consumption or production decisions that are consumed by third parties. Related to the concept of externalities are two qualities, characteristic of many environmental goods: non-excludability and non-rivalrous consumption. Non excludability occurs when the producer of a good is unable to keep non-payers from its consumption, non-rivalrous consumption, when the marginal cost to a seller, of providing a good to an additional consumer is zero (Pennington, 2000). Goods exhibiting both these characteristics are often referred to as public goods; for example scenic views and parks. According to welfare economics, these goods may be 'under produced' unless there is a system of land use planning, because, it is difficult to exclude non-payers from the benefits of the view, and one person's consumption of the view does not detract from the consumption of others. From
the perspectives of welfare economics, therefore, the operation of the free market may result in an inefficient exclusion of potential consumers of these goods. According to the welfarists therefore, the significant market failure that needs correcting include under-supply of public goods.

If the theoretical case for land use planning is based on the ‘market failure’, a significant conception of the way that planning should respond to these instances of market failure is apparent. That is, government should intervene to efficiently supply public goods. Different approaches have been adopted by governments across the world to supply public goods, through different institutional framework of urban government. What theoretical positions underpin provision of public goods? What have been the results of government attempts in this regard? What experiences have emerged from the urban areas of Nigeria? Finally what other alternatives exist for the provision of public goods in the cities of Nigeria? To find answers to these questions this paper is divided into four parts. The first part of is the introduction. The second part of the paper is on the theoretical positions underpinning the provision of public goods. The third part is on the experience of government provision of public goods in the cities of Nigeria. The conclusion forms the fourth and final part of the paper.

2. THEORETICAL POSITIONS ON PROVISION OF PUBLIC GOODS

The classic example of a pure public good is national defence. Other commonly used examples include street light, roads, parks, etc, (Varlan, 1993). Ordinary goods are both excludable and rivalrous. Some goods (e.g. a private swimming pool) are excludable but partly rivalrous. The pool is excludable since unauthorised users can be prevented from using it. It is partly rivalrous since the presence of other users may affect one’s enjoyment of the pool. If a good is partly rivalrous in this way, it is sometimes called a congestable good. Nonexclusive means that it is too costly for the providers of the public good to collect a payment from those who benefit from it (Fischel, 2004). Thus, entrepreneurs who propose to provide a good from which consumers cannot be excluded will under-provide it because it is too difficult to exclude those who do not pay. Nonrivalrous implies that the enjoyment of the public good by a consumer does not diminish its availability for other consumers to enjoy. Taken together, these characteristics mean that once supplied, a public good provides benefit for everyone, but that those individuals who are so inclined may be able to avoid paying their fair share of the costs, and thus act as ‘free riders’. Therefore the profit seeking private sector will supply a sub-optimal quantity of the good, if it supplies it at all. The traditional solution therefore, is to have government supply the good and tax the citizens accordingly. Ordinarily, arguments for government provision of public goods include; that government provides these goods more efficiently, that the goods and services may benefit individuals
other than the purchaser, that the value of the goods or services is often greater than the individual consumer could afford and that the good promotes economic equity (Foldvary, 2009).

**Collective Action Problem**

Olson (1965) on collective action pointed out a fallacy in traditional group theories, which assumed that if a group had some reasons or incentives to pursue its members’ interests, rational individuals in that group would also have the incentive to support the collective endeavour. According to Olson, (1965) this is logically fallacious, especially in large groups. The larger the number of people belonging to an interest group, it is argued, the less likely is the successful formation and sustained management of the organisation.

First, this is because the larger the number of members in the group, the greater the organisational costs, and thus the higher the hurdle that must be overcome before collective net benefit can be realised. Larger groups have high set-up costs, including the costs of co-ordinating ‘buy-in’. Second, many of the benefits of group-oriented action are, by nature, non-excludable and indivisible. They are local public goods and each individual may be better off if he or she free-rides on the group participation of others, that is, reaping the benefits without incurring the costs. The larger the group, the higher the organisational costs and, for a given level of total benefit, the smaller the shares of the total benefit that will be going to any individual, including the individuals who assume the costly task of organisation and leadership. The question is one of incentives to bear the cost of the collective action. In small group situations however, the collective action problem may be more easily overcome.

**Public Goods as Club Goods**

These relationships were also addressed by Buchanan, (1965) in his work on the economic theory of clubs. This challenged the conventional welfare economic distinction between public and private goods by recognising that few goods are in infinite supply and that the benefits and costs of collectively consumed goods vary with numbers of co-consumers. Buchanan, (1965) focused on the optimal size of clubs but it could also be taken as a sophisticated model of group formation and sustainability since formation and sustainability must be a function of a club’s attractiveness. Buchanan (1965) and Heikkila (1996) showed that there was another way of looking at the problem of optimal size; starting with a fixed number of members and varying the quantity of the club good. In other words, with increasing size of a facility having fixed members, benefits rise at a decreasing rate indicating diminishing returns, either flattening out or down-turning if the surplus actually reduces a household’s utility (Simon and Webster, 2005). Therefore, costs increase with the size of groups or organisations. By extension also, there is an
optimal quantity for each group of individuals given by the maximum distance between cost and benefits. Thus a significant contribution of the theory of clubs arising from the above discussion to achieve efficiency of groups and organisations by relating size of community as it changes with size of facility as well as optimal facility size as it changes with size of community. On the aspect of group formation, Buchanan (1965) showed that groups of any size could efficiently allocate costs and benefits to members, as long as the number of members and quantity of club goods could be co-ordinated. This is possible with entrepreneurial clubs that ration consumption by membership fee. In this case, membership overcomes the free-riding problem and fee efficiently allocates costs and benefits. Club theory could thus be applied to non-entrepreneurial urban groups and organisations in conjunction with the theory of collective action Heikkila (1996) and Webster (2003). While Buchanan (1965) demonstrated the possibility of efficient delivery of local public goods via clubs, Olsen (1965) demonstrated the problem of club formation (in the absence of effective co-ordination that yields efficient pricing and prevents benefit leakage). In this regard therefore, the issue of an efficient group formation as well as an optimal size of a group becomes an institutional problem, begging the question what institutional or organisational structure could effectively deliver benefits of collective consumption. Here, club theory and collective action model both articulate ideas on the costs and benefits of co-operating under unified management to provide collective goods.

As such, they have an interesting parallel in modern theories of the firm and, more generally, institutional economic theory developed from Coase (1973) and Coase (1990) foundational inquiry into the nature of the firm. This analysis asks why firms exist and suggests that it is because transacting for all resource and knowledge exchanges in the open market is too costly. The costs of searching for partners and making and policing contracts are reduced by combing rights within a unitary legal trading entity.

In the context of growing and managing urban neighbourhoods, the cost of cooperating over shared resources, local public goods and externalities via individually negotiated agreements is excessive (Simon and Webster, 2005). It appears more efficient therefore to pool resources and rights either through traditional municipal governments or through co-ownership tenure and community or private governance in the form of Homeowners Association (HOA), Gated Communities or even the informal Street/Neighbourhood Associations. It must however be noted that at some point in time, the size of the organisation may become too large resulting in organisational costs exceeding individual expected gains compared to the alternatives. Different types of organisation may therefore replace each other over time through a process of institutional competition.
However, the collective action problem in large groups is not necessarily insurmountable. Olsen (1965) suggested four (4) strategies: privileged group, federal group, coercion and positive inducements. The following below, provide more detailed insights on these strategies:

- A privileged group is a group in which members, or at least some or one of them, has an incentive to see that the collective good is provided, even at the expense of bearing the full cost;
- A federal group is one of a number of smaller groups, each of whom has a reason to join a federation representing the large group as a whole;
- Coercive incentives induce collective action by threat of punishment;
- Positive inducements give incentives to members of a latent group to become active, with benefits greater than the perceived costs, with inducements being either material or non-material.

3. GOVERNMENT PROVISION OF URBAN PUBLIC GOODS IN NIGERIA

While there have been attempts in recent times to reform the system of public goods and service provision in the countries of sub-Saharan Africa, following the promptings of the World Bank and the IMF (Larbi (2000); Calderon and Servin (2008), the provision of public goods in the countries in the region, is still dominated by agencies of government in various forms. In a typical Nigerian urban area, for example, about half a dozen or more government agencies are responsible for the provision of one or the other public good. Thus you may find the Water Corporation, the Ministry of Works and Transport, the Waste Disposal Board, the Ministry of Health, the Ministry of the Environment and the Open Spaces Commission. Besides these essentially state (regional) agencies, there are also Federal (central government) agencies such as the Power Holding Company of Nigeria (PHCN), the Federal Ministry of Works and the Nigerian Police Force (NPF).

These government agencies are responsible for the provision of a wide range of urban public goods from: water supply, electricity provision, solid waste, parks and open spaces and security. However the level of performance of these agencies may best be described as pathetic. Thus we may be having a case of ‘government failure’ rather than ‘market failure’ in the cities of Nigeria as demonstrated below:

- Less than 45% of Nigerians had access to public power supply in 2005 (Akande and Owoyemi, 2008). In a study conducted at Anyigba a town in Benue State, Nigeria, Akande and Owoyemi (2008) noted that more than 70% of the respondents possess electric generators and use them
to provide domestic and commercial power in the absence of supplies from the public power supply agency. Besides, except in official government residential neighbourhoods, the majority of urban residents live without street lights;

- Nigerian roads have been found to be the lowest in density in Africa, with only 31% of the roads as paved as compared with 50% in the middle income countries. Even where roads are paved, only 40% can be said to be in good condition (Alabi and Ocholi, 2010);

- Private security companies (PSC) are rapidly proliferating in the cities and towns of Nigeria while vigilante and militia groups are spreading rapidly throughout the urban areas. In the city of Kaduna, Kaduna state, Nigeria, the number of clients subscribing to the private security companies, tripled between 1997 and 2001 (Muggah and Frate, 2007). Vigilante and neighbourhood militias usually consist of volunteers organised at the community level to protect communities and are often provided with modest stipends from amongst residents of the subscribing neighbourhoods.

Street/Neighbourhood Associations

A discernable phenomenon across Nigeria’s urban neighbourhoods therefore, is the growth of what is referred to as Street/Neighbourhood Associations. These are spontaneous reactions by urban residents to tackle what are conceived as ‘common collective’ problems faced by the neighbourhoods (Egbu, 2007). These associations make arrangements for the provision of urban public goods (security, waste collection, provision of recreation and maintenance of neighbourhood roads and other facilities). These are apparent reactions by residents of the neighbourhoods to perceived failures in the supply of these services by government agencies responsible for their provision (Webster, 2000). The Street and Neighbourhood Associations in Nigeria are not legal entities but informal arrangements by residents to overcome common public good problems and thus governed by informal rules, codes of behaviour and other hybrid arrangements (Sandler, 2010).

Methodology and Data Analysis

A quantitative approach was adopted to obtain numerical data, rankings and comparisons between variables for the empirical aspect of the study. The leaders of Street/Neighbourhood Associations in three urban areas of Nigeria: Lagos, Abuja and Aba, representing three different geographical zones of the country; south, north and eastern parts of the country were randomly selected for a more representative coverage of the activities of Street/Neighbourhood Associations in Nigeria.
A two way sampling approach for data collection was adopted in the absence of a published frame of leaders of Street/Neighbourhood Associations. First a reconnaissance survey was employed at random in three areas of Lagos (Epe, Ikorodu and Ojo), and two each in Abuja (Kubwa and Kuje) and Aba (Ovom and Ohanku), to first identify the Street/Neighbourhood Associations and then the addresses of the leaders of the Associations. Second a one on one interview approach using fully structured and standardised data collection instrument (questionnaires) was employed to elicit data and information on specific constructs and variables on the activities of the Street/Neighbourhood Associations from the respondents, the leaders of the Street/Neighbourhood Associations. Data obtained from the administration of the questionnaire was analysed using Friedman non-parametric test technique in SPSS to obtain mean ranks on the samples. The technique used also provided ordered ranks, made it possible to compare relationships between variables and helped determine levels of significance for more definitive inferences to be drawn from the analysis.

Results

The mean number of years since the formation of the Street/Neighbourhood Associations is 8 years. Analysis of the data obtained from the leaders of the Street/Neighbourhood Associations show that the associations are led by two main types of executive structure. In the first instance about 47% of the associations have an executive structure elected from a forum of households in the area; another 42% indicated that other associations are led by volunteers living in the area, while 11% indicated that some associations are led by representatives of households living in the area. From this it is possible to discern a situation where the associations may be going through a process of institutional experimentation, competition and developmental growth. Whatever approach that is adopted most of the executive members are not remunerated financially (83%). Just about 11% indicated that members of the executive are paid while only 6% indicated that only the Chairmen are rewarded financially. Table 1 below provides the breakdown as to the reasons for the formation of the associations, showing a strong role by the landlords and property owners in the neighbourhoods. This may explain the apparent success of the associations since landlords may be seen as residual claimants in the neighbourhoods since the value of the properties will be affected by actions in the neighbourhood. They thus have an incentive to make sure that activities likely to enhance the value of their properties such as improved security, provision of a variety of public goods in the neighbourhoods are encouraged and supported and provided.
Table 2 below shows the means and rank order of public goods provided by the Street/Neighbourhood Associations with security coming first followed by solid waste disposal and electricity facilities.

<table>
<thead>
<tr>
<th>Public Goods Provided</th>
<th>Rank</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do Not Provide Anything</td>
<td>7</td>
<td>1.58</td>
</tr>
<tr>
<td>Security</td>
<td>1</td>
<td>5.82</td>
</tr>
<tr>
<td>Recreational Facilities</td>
<td>6</td>
<td>2.49</td>
</tr>
<tr>
<td>Educational Facilities</td>
<td>4</td>
<td>4.22</td>
</tr>
<tr>
<td>Water</td>
<td>5</td>
<td>3.58</td>
</tr>
<tr>
<td>Electricity Facilities</td>
<td>3</td>
<td>4.65</td>
</tr>
<tr>
<td>Solid Waste Disposal Services</td>
<td>2</td>
<td>5.65</td>
</tr>
</tbody>
</table>

Table 3 provides an outline of the arrangements by the Street/Neighbourhood associations in providing urban public goods indicating that a system where the associations’ contract out to government agencies is the most preferred option and thus ranked first. It might appear curious that associations contract out to government agencies that are statutorily tasked to provide public goods, however, there is a well thought out rational behind this. Lacking any form of legal recognition, working with statutorily recognised government agency is one sure way of staying on the right side of the law and avoiding unnecessary harassment by law enforcement agencies. Typically, for example, where a neighbourhood electricity transformer has broken down or needs replacing in theory, the government agency responsible for the repair or replacement of the transformer is the Power Holding Company of Nigeria (PHCN). In practice however, the agency may fail to repair or replace the transformer for weeks or even
many months, leaving residents in darkness and making them run their generators to provide domestic power to the households and for small businesses in the neighbourhood.

This is where the associations step in presenting the problem to members at a meeting and funds raised if any action is to be taken. The Street/Neighbourhood Association then contracts out the task to the government agency responsible, to execute the job under the supervision of a task force of members selected from the neighbourhood. Funds are raised through levies imposed on households, donations received from members. Similar approaches are adopted for the provision of other public goods such as neighbourhood security provided by vigilante groups whose members have to be checked and clearance to bear arms obtained from the local Chief or Divisional Police Officer (DPO) responsible for the area.

The Street/neighbourhood Associations employ a variety of methods to enforce decisions reached by members especially in attempts to collect funds from defaulting members. Table 4 clearly identifies the various approaches adopted by the associations to enforce decisions on raising funds from defaulting members.

<table>
<thead>
<tr>
<th>Enforcement Arrangements</th>
<th>Rank</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant Harassment of Defaulting Households</td>
<td>7</td>
<td>1.83</td>
</tr>
<tr>
<td>Do nothing</td>
<td>5</td>
<td>3.22</td>
</tr>
<tr>
<td>Task Force of Residents sent to Defaulters to Enforce Payment</td>
<td>3</td>
<td>4.71</td>
</tr>
<tr>
<td>Task Force of Non-Residents sent to Defaulters to Enforce Payment</td>
<td>4</td>
<td>4.04</td>
</tr>
<tr>
<td>Stigmatisation of Defaulters</td>
<td>6</td>
<td>2.47</td>
</tr>
<tr>
<td>Appeals to Relatives of Defaulting Households</td>
<td>1</td>
<td>6.07</td>
</tr>
<tr>
<td>Invite the Police</td>
<td>2</td>
<td>5.65</td>
</tr>
</tbody>
</table>

The most effective payment enforcement option adopted by the Street/Neighbourhood association and which ranks first is the ‘Appeals to Relatives of Defaulting Households’. This would appear to be an informal approach. This may also indicate the use of local informal codes of behaviour to enforce payment agreed upon by the associations. However, the associations also employ’s formal institutions with invitation of police as the second ranked option. On the whole however, the associations tend to employ mostly local informal codes of behaviour. The use of task forces made up of local residents and non local residents appear to be attempts to use force informally to obtain agreed funds from defaulting members of the association. It is equally important to note that Street/Neighbourhood Associations rarely harass defaulting households to obtain payment agreed upon by members, an option ranked 7 in Table 4. Relating the approaches used in the empirical study in Nigeria on overcoming the free rider problem and those highlighted earlier as noted by Olsen (1965) it would appear that the approach
adopted in the Nigeria comes closest to the coercive incentive induce collective action by threat of punishment. Appeals to relatives of defaulting households as an approach to obtain funds from defaulting association members may give the impression that associations incur a lot of costs in trying to obtaining agreed funds, however, the approach apparently is more effective because of the social pressures that are placed on families by other community members to cooperate with the association and not to bring family names to shame in the event of a default.

On trying to improve the effectiveness of the Street/Neighbourhood Associations evidence from the study suggests that there is a strong belief of the enormous potential inherent in the associations as a form of local urban governance and a credible alternative to the current local government system. The growth of the associations is also evidence of the ‘failure’ of government’s current system of urban public goods provision in Nigeria. Table 5 shows that the improvement option that rank’s first is creation of a system of elected governance.

<table>
<thead>
<tr>
<th>Association Improvement Options</th>
<th>Rank</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Government. Legal Recognition</td>
<td>2</td>
<td>4.54</td>
</tr>
<tr>
<td>More Responsibilities for Association</td>
<td>3</td>
<td>3.81</td>
</tr>
<tr>
<td>Improved Collection of Levies</td>
<td>4</td>
<td>3.33</td>
</tr>
<tr>
<td>Have a Permanent Secretariat</td>
<td>5</td>
<td>2.75</td>
</tr>
<tr>
<td>Increase Levies on Residents</td>
<td>6</td>
<td>1.53</td>
</tr>
<tr>
<td>Create a System of Elected Governance</td>
<td>1</td>
<td>5.04</td>
</tr>
</tbody>
</table>

It is interesting to note that the improvement option to create a system of elected governance has the first rank followed by government legal recognition. Ordinarily and going by the assumption that officials of organisations would want to increase their areas of responsibilities and funds available to them (Niskanen (1996), the options on government legal recognition and those for more responsibilities and funding should have had higher means and thus ranked higher. However, another view is to see the rankings as a further criticism of the current system of local government administration and governance in Nigeria especially at the urban level. Another conclusion to be drawn from Table 5 has to do with the belief in the future development of the Street/Neighbourhood Associations as a gradual evolution of the system of local governance from the present informal nature to a vibrant efficient and democratic institution spontaneously emerging from local desires to improve urban governance in the cities of Nigeria.

A number of points have emerged from the above study of Street/neighbourhood Associations in Nigeria. First they arose as spontaneous reaction by residents in the different urban neighbourhoods across the country to overcome what may be regarded as common collective problems faced by
residents. The emergence of these associations and their ability to provide members with a range of urban public goods represents a collective vote of failure of the current government system of public goods provision in Nigeria. While these associations lack legal recognition they however enjoy enormous good will among residents. Their informal nature has however affected the efficiency of their operations especially in their relationship with government agencies, statutorily responsible for providing urban public goods. At the same time there are untapped potential in the ability of the Street/Neighbourhood Association to evolve into a more efficient and democratic system of urban governance. The associations also appreciate the role government can play to influence this evolutionary process. Table 5 clearly shows that this could be achieved through government legal recognition which is ranked highly among the measures to improve the activities of the associations.

The Street/Neighbourhood Associations may not exactly compare with other privately governed communities such as Homeowners Associations, Condominiums and Gated Communities across the world; however they have demonstrated that urban public goods could be provided effectively and even more efficiently by other institutional arrangements outside government, with appropriate institutional and governance mechanism to overcome the problems of free riding.

4. CONCLUSIONS

In addition to the management of externality problems, one other justification for government land use planning is found in the provision of urban public goods (open spaces, parks security, electricity, etc.); goods that may be under produced because it is difficult to exclude non-payers from the benefits of these goods. As a result, a market failure situation arises in the form of under supply of these goods by private providers, a deficiency that needs to be corrected through the traditional government provision of public goods. Theoretically, it is assumed that the correction of the free-rider problem excludes alternative institutions except that of government for public goods provision. In developed and developing countries public goods have long been provided by government agencies. In Nigeria evidence from the urban areas of the country shows that these government agencies have often ‘failed’ to provide these public goods. However, insights from collective action theory on appropriate incentives, club goods and acceptable governance structures make it possible to provide public goods outside the institution of government. Examples of successful provision of urban public goods under alternative institutions include Homeowners Association (HOA) and Gated Communities in the developed cities and the informal Street/Neighbourhood Associations in the developing countries as demonstrated with the empirical evidence from the cities of Nigeria.
REFERENCES


