

## **Examine the level of Public Participation in Environmental Impact Assessment Process: A case of MRT Project in Malaysia**

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**Abstract:** This study examine the important role that public participation play in environmental impact assessment process. The study uses the MRT project in Malaysia as a case study. As an internationally accepted requirement in EIA process, public participation is a key towards stakeholders' involvement in environmental management. This study identified various models that has been postulated by scholars and concluded that Arnstein model of public participation was the bases for all other model hence, the researcher used it to determine the level of public participation in the MRT project in Malaysia. The results of the study however show at which level participation was categorized.

**Keywords:** Public Participation; Environmental Impact Assessment; MRT Project; Malaysia

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### **I. Introduction**

Sustaining and managing of the world natural resources has become an issue of international discourse. The integration and involvement of the public and stakeholders by government establishment has open more opportunities for constructive debate on how best to manage the environmental degradation that may arise from utilization of its resources. The integration of the public came when traditional system of government were overwhelm with the challenges of social problems given room to negligence of sustainable utilization and management of environmental resource that the world is blessed with [1], [2]. According to [3] , public participation is define as “any form of interaction that exists or takes place between government, corporate actors and the public as identified by EIA policy and process”. Public can be consulted for the purpose of inquiry, hearing, consultation or in public decision making[4]

Government responsibilities and challenges in terms of good governance have reached a higher level, making it difficult for them to respond to individual needs. The distance in interaction experienced with public due to these big challenges affects public opinion and views on issues that shape their lives. The concepts of trust elucidates the ability of the public in supporting government policy [5] . Achieving results by government through its policy requires building collaborative relationship with the public and this is subjected to the level of trust that is exhibited by both parties [6]. Since natural resources are limited, management becomes all collaborative effort between government and its citizens. [5] posited that interaction between government and the public with distributive justice will clearly ameliorate fears and challenges insinuated by the citizen. However, all concerns agree that sustainability is all encompasses but does the situation across the world now shows collaboration? Given the extensive and exhaustive discussion on the important of collaborative responsibilities in managing the environmental resources, is the world experiencing an improve integration of all stakeholders? Why it is that public participation is seen as an administrative procedure? And at what stages could be accepted as adequate public participation in Environmental Impact assessment. All these are some fundamentals issues that is affecting standardization of Public participation in the world. It is against this background that this study examines the level at which public participation in environmental impact assessment can be categorized using established models by various authors in the world.

### **II. Review of Literatures on Participation Models**

#### **1.1 Theories of Public Participations**

Just like any other discipline, the interrelation experienced in development of theories have an effect in the field of public participation, this resulted into an intertwined philosophy with other field theoretical work. According to [7], the Marxism scholar propagated the theory of public participation through the Marx's view on involvement of public in governance. The interwoven can also be noticed in the work done by political theorist who developed theme in participatory democracy with public participation principles[8] [9]. Many literature on siting and risk communication also dwells in public fairness process using theories that revolves round public participation [10] [11][12] .

Arising from several authors and theorist, different views on public participations emerged. [13] proposed a normative theory of public participation that considers fairness and competency using Haberma's

speech and competency concepts. This in his view will unify thought and philosophy in public participation. However, involvement of the public in environmental decision making has been subjected to two schools of thought[14] . The author identified these two to be *process perspective* and *substantive perspective*. The latter which is substantive perspective posited that public participation improves the outcome of decision making while the process perspective support those democratic process that is experienced in substantive perspective. Within the context of these two schools of thought are several theorists who identified several role of public participation. The *rational elitism* school is one that believes in the philosophy of existence of complexity and technicality in environmental policy formulation and implementation. The group believes more in the decision of expert with little participation of the public [15] . The expected results from expert technicality and cost-benefit analysis on project suggest the favourability of this group from government[16]. The second school of thought is label *liberal democratic*. This group believes in the right of individual to consultation and also their voice in decision making process. The weakness of electoral legitimacy in the global world affected procedural legitimacy thereby affect the philosophy behind *liberal democratic*. Public participation in decision making facilitates community involvement in developmental project at the same time help in environmental monitoring. The power of ownership and sense of involvement encourage commitment and support toward government policy on environmental monitoring. The challenges associated with *liberal democratic* gives birth to another school of thought with the philosophy of *deliberative democracy*. The process empower citizen based on ethic and social values [17].

Among all these style of public participation discussed so far, the *liberal democratic* enhanced the power of the public to contribute on policy formulation and implantation that are germane to the environmental sustainability and also allows proper developmental process within a democratic nations hence the model of this study would be based on liberal democratic theories of [14]. However, all the school of thought believes in the power of public participation in sustainability of a project but defer on the form of participations and who should participates.

## **2.2 Ladder of Public Participation**

Going by the concept of public participation, the issues of the degree at which public participation and also involve have prompted up several models adopted by scholars. The level at which the public participate in Environmental Impact Assessment and any other process depends largely on the kind of information and opportunities that are available to the public. Several scholars have come up with stages on how public participation can be measured and these have become a model in today academic cycle. The most prominent among all these models are [18] [4] [19] and [20].

Leading in this direction is sherry Arnstein. In her ladder of citizen participations, Arnstein proffer eight rungs where she explained level of citizen participation in decision making process. The author sees citizen participation as a means of distributing power to those public who do not have political or economic power to influence decisions that affect their way of life [18]. The eight rungs include manipulation which is at the bottom end of the ladder and citizen control at the top which explains the degree of freedom and contribution of citizen to decision making process. The ladder was segmented into three stages; the first stage includes manipulation and therapy; the second segment includes informing; consultation and placation and they are categorised as degrees of tokenism. The last segment which is referring to as degree of citizen power gives more power to the public. This stage includes partnership; delegated power and citizen control. The ladder elucidates the gradation in citizen participation and how powerless citizen can be graded in terms of participation.

The[4] believe public institutions represent public participations. The group believes that public participate when there is general information and knowledge about the subject matter though with little influence in the decision making. Their ladder encourages little direct influences in decision making at the last stage of the process. The defects that are pointed out by the scholar in this model are the double role played by the government agency. The agency is responsible for provision of information and data that are supposed to serve as informative point to the public in order for them to make their judgement and at the same time have the sole responsibilities in decision making, it means that the process is not democratic and also not people oriented. [19], also came up with eight level of public involvement in decision making with an increase level of participation at every stage of the rungs through influence and commitment. The scholar sees the lowest level of involvement at the stage of informing and educating. This they believe that for any participation to be meaningful, the public needs to be properly informed on issues as well as educate them before they can seek for their involvement as the highest point of participation. They also believe that the process of public participation can change with any given decision making process. Unlike Arnstein, the scholar did not see the stages of informing and educating as a manipulation rather they see it as a stage of informing and preparing for seeking the public consensus. [20], published his finding where he work on Arnstein ladder and came up with what he refers to as a new ladder of citizen participation. The scholar concludes that the eight rungs of citizen participation identified by Arnstein cannot solve the problems of participation in the real world of citizen

involvement level. This shortcoming noticed by Connor make him to develop another rung that indicates challenges that may be experience at location of program ranging from urban to rural area. He identified conflict resolution as the bases of participation and concluded that preventing and solving controversy that may result from issues inform the bases for consultation [21]. He came up with a new range of techniques in dispute resolution. Connor citizen participation model was based on how to avoid or resolve conflict that may arise when there are decisions that affect the public. Unlike the Arnstein he sees prevention as an important aspect than involving the public in the decision making process.

### 2.3 Comparing Participation Models

Going by the different scholarly work on participation model, it is clearly seen that all the proponents of the models have different views on which process that should be followed when public participation is mention by government or project initiator. [22] categorised some of these models discussed in line with the orientation of the authors and the spectrum it follows TABLE 1

**Table 1:** Comparisons of Participation Models

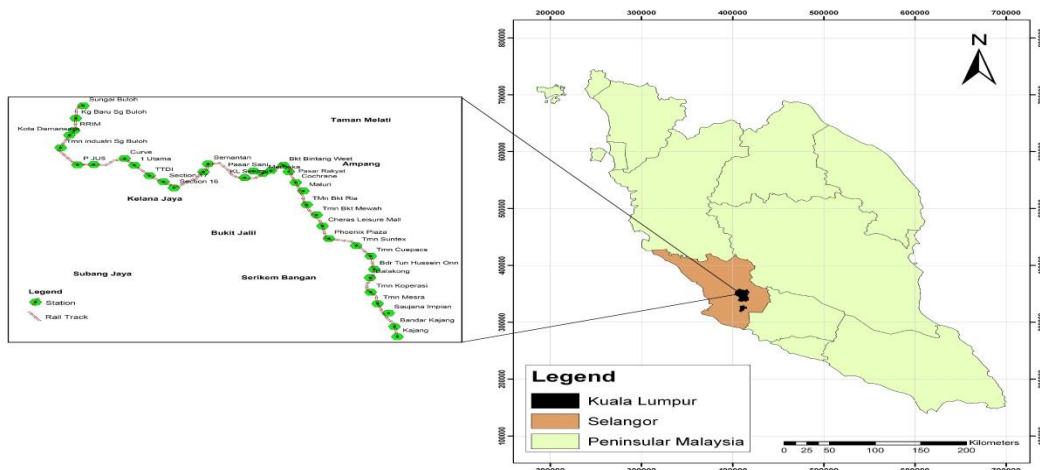
Author	Orientation	Spectrum
Arnstein	Power orientation	Manipulation → Citizen control
Wiedemann and femer	Administrative orientation	Education → joint decision making
Conner	Conflict resolution	Education → prevention
Dorcey et.al	Planning process	Inform → on-going involvement

Adapted from Schlossberg and Shuford (2005)

Arnstein model was viewed as power orientation with manipulation to citizen control as the spectrum, Wiedemann and Femer orientation was based on administrative purposes then the spectrum was from education to joint decision making. The Conner model dwell on conflict resolution and the spectrum spring from education also to prevention while Dorcey et al. developed planning process using information to on-going involvement as their spectrum. However many authors based their work on Arnstein model and her work has formed bases for many scholarly research works in public participation since it was propounded by her up till recent time [23][24][25][26][27][28][29]. Going by the simple understanding and consistently utilisation of the Arnstein model, this study therefore adopted the model in order to determine the level of Public participation in the EIA process of the MRT project in Malaysia.

### III. Case Study And Methodology

The case study method was used to examine the level at which Public participation in the Environmental Impact Assessment (EIA) process of the MRT project in Malaysia was conducted. The study used descriptive method of data analysis with quantitative methods of data collection. The project cut across five local authorities' area namely; Dewan Bandaraya Kuala Lumpur (DBKL), Majlis Perbandaran Kajang (MPKJ), Majlis Bandaraya Petaling Jaya (MBPJ) Majlis Bandaraya Shah Alam (MBSA) and Majlis Perbandaran Selayang (MPS) (fig 1). The train track is from Sg Buloh to Kajan passing through Kota Damansara, Badar Utama, the city centre, Cheras then connects to existing Kelana Jaya line LRT, Persiaran Seni station and star line LRT Maluri station.



**Fig 1.** Map of Malaysia showing route of the MRT train

According to profiling estimates (PE) of the EIA consultants[30], the estimated population within the corridors is 119,600. The population cut across Condo/ Apartments and flats that are within the receptive zone. The sample size for this study was determined by Cochran (1977) and it is 383 comprising people living around the sensitive receptor line of the MRT project. The study used proportional allocation techniques in selecting sample size across the sensitive receptor area. Out of the 383 questioner distributed, 310 were returned and 304 were valid given the return rate to be 81% and valid rate at 79% respectively. Based on the model of Arnstein participation which includes manipulation at the lowest level of the ladder and citizen control at the highest level of the ladder, continuous rating scale was developed. Continuous line or rating allows for internal measures and therefore gives the respondents the opportunity to determine their options freely without any bias from the researcher [31]. The continuous rating is represented with an 8 meter line with a thin dot to represent each of the rungs on the ladder. The study categorised the output based on the three typology level as posited by Arnstein. The gradation includes Nonparticipation (manipulation and Therapy), Degree of tokenism (informing, consultation and placation), and the last is degree of citizen power (partnership, delegated power and citizen control).

#### **IV. Results And Discussion**

From descriptive statistics output generated, out of 304 respondent 54% with frequency of 164 respondent believe their participation on the EIA process of the project fell within manipulation and therapy (nonparticipation). The result implies that above average of the respondents believes that they are not integrated into the participation process as such they see themselves as nonparticipation. The next stage of respondents fell within information and placation (degree of tokenism). The percentage generated under this degree of participation was 34% with 104 as the frequency level. The result generated under this group implies that respondents under this categories believes that they are only inform about the project with little or no contribution on the EIA process of the MRT project. The last group of respondent believe their participation fell within partnership and citizen control (degree of citizen power). This group was represented by 12% of the respondent with frequency of 36 within the 304 respondents that was used for this study.

**Table 2:** Level of Public Participation

Variable	Frequency	Percentages (%)
Partnership---Citizen control	36	11.8
Information ---Placation	104	34.2
Manipulation--- therapy	164	53.9

Going by the outcome of the results, it is clearly shown that majority of the respondents were not involved in the EIA process and this negate the guidelines as prescribe by the DOE in Malaysia. According to Neill (2014), several reason may be ascribe to this, this could be as a result from the public apathy due to their believes that there contribution may not change anything therefore they did not want to waste their time. The author also posited that many administrators are ambivalent about public participation on a project because they believe it may slow them down on achieving their set goals as such see it as problematic.

#### **V. Conclusion**

Participation and contribution of the public on any government development agenda cannot be overemphasised. Being the end-user, the custodian, as well as the guardian of government properties, the public input is as important as the provider or the proponent assessment of the project. However, for proper participation of the public in a project, the cause and effect of the project has to be articulated. Also access to proper information that is related to the cause and effect of the program has to be transparent. More so, public attitude need to change in order to partake on assessment and monitoring of their environment so as to build a transparent and confident level on the EIA process, achieving this requires understanding the objectives of participation[33].

In conclusion both public and government agency have a role to play in improving public participation. Environmental management is a complex issue that the world is contending with. Sustaining equilibrium where both renewable and non-renewable resources are managed required contributions of all the stakeholders therefore improving participation required attitude reformation within public as well as government establishment and transparency in information sharing.

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