



(REVIEW ARTICLE)



Challenges affecting public participation in environmental impact assessment in Sri Lanka

I.A.P. Nirmani *

Faculty of Graduate Studies, University of Colombo, Sri Lanka.

International Journal of Science and Research Archive, 2024, 13(02), 030–037

Publication history: Received on 19 September 2024; revised on 28 October 2024; accepted on 30 October 2024

Article DOI: <https://doi.org/10.30574/ijrsra.2024.13.2.2065>

Abstract

Environmental impact assessment (EIA), as a policy procedure, proved capable of promoting sustainable development by reducing or eliminating the adverse effects of development projects. Encouraging public involvement in the Environmental Impact Assessment (EIA) process is crucial for promoting sustainable development, which is arguably the main purpose of the EIA. There are a number of challenges that prevent the public from participating meaningfully in the EIA process. The primary objective of this study is to identify the challenges when they come within the domain of public participation in Environmental Impact Assessment. The paper focuses on identifying the most severe challenges experienced in Sri Lanka. The study is conducted by employing a mixed-method approach. After in-depth interviews with selected key informants and a sample survey of 240 participants representing all 9 provinces of Sri Lanka. This sample is selected using a purposive sampling process. The study revealed a number of challenges, like limited access to information and language barriers, education level, cultural norms and gender roles, institutional support and transparency, lack of awareness and knowledge, and trust among community members in the community. Identified all 6 key challenges that have a significant impact and positive correlation towards public participation in Sri Lanka

Keywords: Environmental Impact Assessment; Environmental Decision Making; Public Participation; Social and institutional Challenges; Sri Lanka

1. Introduction

The most traditional and often used environmental and risk assessment tool is the Environmental Impact Assessment (EIA), while there are several more tools available as well. By assessing the effects of large projects that could influence the natural and artificial environments, Environmental Impact Assessments (EIAs) serve as a tool for ensuring sustainable development. In response to growing public concerns about continuous environmental degradation, the US National Environmental Policy Act (NEPA) requires the preparation of Environmental Impact Assessments (EIAs) (Aregbeshola, 2009) (Dara, Reddy, & Gelaye, 2017) (Glucker, 2012). Promoting public involvement in environmental impact analyses public engagement is a crucial feature of the Environmental Impact Assessment (EIA) process. If any defects are found during or after the EIA process, the public has the right to submit a lawsuit, obtain relevant project or plan details, and provide input on the proposed plan. Many international agreements, such as the Rio Declaration, the Aarhus Convention, Agenda 21, the Universal Declaration on Human Rights, the International Covenant on Civil and Political Rights, the Vienna Declaration, and the Johannesburg implementation plan, recognize public participation as a fundamental right and set of principles.

Public engagement aims to increase openness and educate the public about EIA. The Coast Conservation Act of Sri Lanka allowed for the implementation of the first EIA in 1981. With the revision of the National Environmental Act No. 47 of

* Corresponding author: I.A.P. Nirmani

1980, the National Environmental Act (Amendment) No. 56 of 1988 laid the full legal basis for EIAs in Sri Lanka. Analyzing the Impact on the Environment the Central Environmental Authority is in charge of the project in Sri Lanka. Before making a decision, an organization uses the process of public participation to confer with organizations, government agencies, and individuals who may be impacted. To reach better and more accepted decisions, it entails "two-way communication" and "collaborative problem-solving." Without adequate public involvement, development initiatives may not succeed.

The main function of public participation is to encourage the public to put meaningful input into the decision-making process and public participation thus provides the opportunity for communication between "Agencies" making decisions and "Public". Public participation provides early project stages with opportunities for stakeholders to voice concerns and impact decision-making, thereby enhancing transparency and accountability in the decision-making process. The foundation of good governance and a key to sustainable development is acknowledged to be public participation. It is a procedure to inform and acquaint stakeholders with projects and their potential effects on the environment. Local and traditional hidden knowledge can be gained through appropriate public involvement, and the EIA report and final decision lead can make informed decisions by considering potential negative consequences and mitigating actions. Stakeholder conflicts can be lessened and public trust in the EIA process can be increased through public participation. Furthermore, public involvement provides a venue for enhancing the values, information, and abilities required to take control of one's life, so enabling community empowerment. It also offers a forum for the government to communicate with different stakeholders in order to gather their opinions on how to best meet their demands. Additionally, public involvement makes the process of implementing policies more efficient. cultivates a sense of responsibility and ownership for the process's result. Therefore, if the public is adequately and effectively involved in the country's environmental impact assessments, there will be fewer conflicts between stakeholders, protests will be under control, and development projects will be postponed. Therefore, public feedback must be sought throughout the EIA process to address these challenges and ensure that environmental concerns are taken into consideration in the project. This study is carried out to identify the challenges in the public participation process in Sri Lanka and overcome them for successful environmental decision-making.

1.1. Research Problem

EIA is sometimes viewed as an "anti-development activity" because of misunderstandings and disputes. Project developers and investors believe that the Environmental Impact Assessment (EIA) adds needless delays to the project approval process because of public intervention and the public perception that developers and investors pollute and harm the environment to profit. Conflicts amongst stakeholders may result from those opinions. Therefore, miscommunications and disputes result in low involvement. Due to public and environmental group pressure, certain recent environmentally sensitive development projects in Sri Lanka are challenging to complete or start-up, even after receiving EIA approval. Therefore, it is essential to identify the challenges that may affect public participation and ascertain how they relate to it.

1.2. Research Objectives

This study's main goal is to determine the challenges to public involvement in environmental impact assessments and the connection between these obstacles and the intention of the public to participate. Apart from that the secondary objectives are to identify the concept of public participation and Environmental Impact Assessment, understand the Environmental Impact Assessment process in Sri Lanka and suggest possible suggestions to overcome the challenges and increase the level of public participation in Sri Lanka

2. Literature Review

An EIA has no predetermined definition. Several academics have defined it according to their perspectives and beliefs. Environmental impact assessments are the procedures used to analyze how a project or plan would affect the environment. Before deciding whether or not to approve the project, the local planning authority can use it to better understand and assess the environmental implications of development (Mokhtar, 2016). Additionally, an EIA provides developers with a framework for decision-making when they are modifying an activity to lessen or eliminate recognized environmental effects. In addition, an EIA may be conducted about building or development projects, as well as strategic plans and policies. Large-scale building projects with the potential to have major environmental effects are frequently required to submit a thorough EIA report (Peterson, 2017).

The legal foundation for the EIA process of Sri Lankan regulations were established by the National Environmental (Amendment) Act No. 56 of 1988, which updated the National Environmental Act No. 47 of 1980. Environmental impact assessment (EIA) reports and international environmental examination (LEE) reports are the two types of studies that

must be submitted as part of the Act's project approval process (Weerasinghe, 1997). These reports are the most important ones. The NEA offers a thirty-day public inspection and comment process in accordance with the Act for "prescribed projects Included In a Schedule In an Order published by the Minister of Environment" after the submission of a LEA or EIA report.

A public hearing may be held to give any member of the public who has submitted comments the opportunity to voice their support. Next, the PAA will have to decide whether to accept the project or not based on how important it is to the public interest. Only projects that have been pre-approved must go through the EIA process; these projects cannot be completed until they have received approval from the designated project-approving authorities (PAAs). The pre-approved projects list is decided upon by the environment minister, who also appoints pertinent state agencies as PAAs.

Many authors have provided definitions for the phrase "public participation". The endeavor to include different publics in the decision-making process in order to obtain broad support and acceptance for the specific action is known as public participation, stakeholder involvement, or citizen involvement. Before making a decision, an organization engages in public participation, which is the process of consulting with interested or impacted individuals, groups, and government authorities (Kanu, Tyonum, & Uchegbu, 2018).

It has been believed that public involvement in issues and decision-making procedures that affect the lives of the general public is both a fundamental right and a principle. Consequently, the Rio Declaration, the Aarhus Convention, Agenda 21, and the Johannesburg Implementation Plan are among the international accords, policies, and planning instruments that embody these rights and concepts (Kanu, Tyonum, & Uchegbu, 2018). Dara,Reddy & Gelaye(2017) stated that the number of international agreements like the Rio Declaration Principle 10, Universal Declaration on Human Rights and International Covenant on Civil and Political Rights, Agenda 21 , The Vienna Declaration affirmed the fundamental principle of public participation.

The Aarhus Convention 1998 stated that Every citizen of the country is entitled to participate in decision-making and have permission to justice in environmental matters other than access to information (Okello, Beevers, Douven, & Leentvaar, 2012). Europe adopted this convention that effectively implemented principle 10 for that region with the exclusive objective of involvement of the public in environmental protection in creating a better environment for the citizens(Mokhtar, 2016). The Aarhus convention enhanced access to information and public participation led to public awareness of environmental issues and generated more opportunities for the public to express its concerns to relevant authorities in addition to enhanced quality and implementation of decisions (Okello, Beevers, Douven, & Leentvaar, 2012), (Mokhtar, 2016) ,(Atieno, Mutui, & Wabwire, 2019).

Principle 10 of the Rio Declaration 1992 emerged from the Earth Summit which is the United Nations Conference on Environment and Development. Three fundamental rights are outlined in Principle 10, which guides the creation of laws and policies pertaining to public involvement. Principles that have been recognized as essential foundations of sustainable environmental governance include access to information, public engagement, and fairness (Dara, Reddy, & Gelaye, 2017), (Atieno, Mutui, &Wabwire, 2019). Based on the second pillar public must be informed about the projects that are relevant for them to participate in decision-making process and legislative process. Because of that relevant authorities who are responsible for making decisions can take advantage of the public's knowledge, expertise and which will lead to improved quality of the environmental decisions, and outcomes and guarantee procedural legitimacy (Atieno, Mutui, & Wabwire, 2019). Furthermore, according to principle 10, environmental issues can be handled most effectively if the relevant citizens participate sufficiently. Everyone should have proper access to environmental information at the national level, including knowledge on any hazardous items and activities, and be able to take part in the decision-making process (Mokhtar, 2016).

The International Covenant on Civil and Political Rights and the Universal Declaration of Human Rights It is commonly acknowledged that participation and information access can be considered human rights. Article 19 of the Universal Declaration of Human Rights, article 19 of the International Covenant on Civil and Political Rights and article 21 of the Universal Declaration of Human Rights provide the basic right to participation (Dara, Reddy, & Gelaye, 2017).

According to the United Nations Conference on Environment and Development, implementing Agenda 21 successfully requires the dedication and genuine participation of all social groups. According to Dara, Reddy, and Gelaye (2017), chapter 23 of Agenda 21 states that individuals, groups, and organizations must learn the EIA technique and participate in environmental impact assessments and decision-making processes. The Vienna Declaration, which was approved by the 1993 World Conference on Human Rights, placed a strong emphasis on the value of democracy and participation.

"Democracy, development, and respect for human rights and fundamental freedoms are interdependent and mutually reinforcing," the Vienna Declaration declared. The foundation of democracy is the people's freely expressed desire to choose their own political, economic, social, and cultural structures as well as their complete involvement in all facets of life (Dara, Reddy, & Gelaye, 2017).

Nadeem & Fishcher(2011) argued that for effective public participation ,publics objectives of participation need to be satisfied. Different Scholars identified different objectives of involving the public in EIA. Public participation in EIA is crucial for integrating economic, social, and environmental goals like ego beyond sustainable development, according to Kanu, Tyonum, and Uchegbu (2018) and Mnengwane (2014), because it acts as a tool to increase and deepen public awareness of the harmony between economic and environmental tradeoffs.

Nadeem & Fischer (2011) took the Beierle & Cavford(2002) , as well as GOP(1997) identified objectives of public participation, Give stakeholders enough chances to voice their concerns and have an impact on decision-making early in the project life cycle; educate and inform them about the project's specifics and potential environmental effects; handle disputes between project stakeholders; gather local and traditional knowledge; improve decision-making's accountability and transparency; and foster trust with proponents and government agencies, among other things. Nine goals were identified by Glucker, Driessen, Kolhof, and Ranhaar (2013). These include influencing decisions, strengthening democratic capacity, social learning, empowering and emancipating marginalized individuals and groups, generating legitimacy, resolving conflict, reflecting, utilizing local knowledge and information, incorporating experimental and value-based knowledge, and testing the reliability of information from other sources.

According to Wasserman (2012), the biggest obstacle to public engagement is that each affected interest or public member may have a different preferred or successful communication technique. This could impede the development of the EIA due to issues with language, representation, and access to communications technologies (Kanu, Tyonum, & Uchegbu, 2018).

The identified challenges are limited access to information, time, language barrier, education, gender, political and institutional decision-making culture, and power imbalance. The public perceives their participation in environmental impact assessments (EIAs) as needlessly time-consuming, resulting in an instant financial and human cost. Furthermore, it's possible that the public won't have easy access to pertinent project or EIA-related information. The lack of necessary materials in local language translations is one of the main communication obstacles keeping the public from taking part in the EIA process. Second, it could be extremely challenging to successfully participate in an EIA due to the technical nature of many development-related issues and poor educational attainment.

Due to people's traditional behaviors and beliefs, communication barriers may occur when the public participates in the EIA process. One of the main obstacles to effective public involvement is gender issues, particularly the lower position that women are given in decision-making in many regions of the world. Furthermore, government agencies may react defensively to public involvement since it is sometimes perceived as a challenge to their power (Kakonge, 2012).

According to kakonge (2012), identified several challenges that affect public participation.

Absence of Consultation-Project documents are frequently written in technical terms, making it impossible for anybody other than the highly educated few to grasp them. Government officials who want to make sure that project implementation isn't excessively delayed may benefit from this ignorance since it allows them to restrict participation to feedback from knowledgeable

Insufficient communication between the local population and the government- Projects are developed without the government providing the local population with the information required to avoid any misunderstandings regarding the projects.

Absence of Openness-There are insufficient provisions for public education in the EIA process for large projects. For instance, designating documents as confidential may hinder their public distribution, and meaningful public engagement is challenging to accomplish in the absence of transparency. Furthermore, a lack of transparency breeds mistrust and misunderstandings between communities and project officials.

3. Methodology

Sri Lanka is administrated under 9 provincial councils. They are Western, Southern, Central, North Central, Northern, Eastern, Sabaragamuwa, Uva, and Wayamba. The online questionnaire was developed based on the researchers' personal experience, data collected from the key informants, and an extensive review of the literature. The majority of the survey's questions are closed-ended and include Likert-type items; it is a structured questionnaire. Personal information is not included in the poll because respondents might be unwilling to provide it. Avoiding this will increase the response rate and reduce the likelihood that the questionnaire will not be submitted. Due to unavailability, it is hard to examine the entire population; instead, the questionnaire's sample was chosen using non-probability technique, and purposive sampling methods. The questionnaire is distributed online as well as through environmental Officers representing all 9 provinces. 240 responded to the questionnaire. The questionnaire was pre-tested on a group of 15 people from different backgrounds, who were not a part of the survey. Collected data is analyzed using the SPSS software.

4. Results and Discussion

4.1. Demographic Analysis

The largest proportion of the sample, constituting 38.33%, falls within the age group of 35-44 years, while 24.58% belong to the 45-54 age group. Conversely, the age bracket with the fewest participants is age above 65 years, comprising only 2.5% of the sample. Additionally, 12.08% fall within the age below 25 years, and 10% are aged 55-64.

Among the participants 65% of the participants are males and the other 35% are women. Additionally, for this survey, most of the participants participated from the western province which is 29.17% and the least participants were from Northern Province which is 2.92%.

4.2. Chi-Square Analysis and Correlation Analysis

Table 1 Table of Pearson correlation and p value of respective hypothesis

Hypothesis	Pearson Correlation Value	P value
H1: Limited access to information and language barriers negatively affect the public participation intention in EIA process.	.364**	0.000
H2: Higher levels of education among community members positively correlate with increased public participation intention in the EIA process	0.154*	0.017
H3: Cultural norms and gender roles significantly impact the level of public participation intention in the EIA process, with marginalized groups experiencing lower levels of engagement.	0.311**	0.000
H4: Strong institutional support and transparency from government authorities positively influence public participation intention in EIAs.	0.164*	0.011
H5: Implementation of capacity-building initiatives (e.g., training, awareness campaigns) significantly enhances public participation intention in the EIA process	0.229**	0.000
H6: Trust between community members and government authorities mediates the relationship between public participation and project outcomes in EIAs	0.361**	0.000

The first hypothesis of the study is that Limited access to information and language barriers negatively affect the public participation intention in the EIA process have a Pearson correlation value of 0.364 and Pearson chi-square value (p-value) of 0.000. Because the p-value is less than 0.05, the alternative hypothesis can be accepted and the null hypothesis rejected. So we can conclude that limited access to information and language barriers negatively affect the public participation intention in the EIA process at 95% level of significance and there is a positive moderate relationship between the 2 variables.

The second hypothesis of the study is that Higher levels of education among community members positively correlate with increased public participation intention in the EIA process having a Pearson correlation value of 0.154 and Pearson chi-square value(p-value) of 0.017. Because the p-value is less than 0.05, the alternative hypothesis can be accepted and the null hypothesis rejected. So we can conclude that higher levels of education among community members positively correlate with increased public participation intention in the EIA process at a 95% level of significance and there is a positive weak relationship between 2 variables

The third hypothesis of the study is that Cultural norms and gender roles significantly impact the level of public participation intention in the EIA process, with marginalized groups experiencing lower levels of engagement having a Pearson correlation value of 0.311 and Pearson chi-square value(p-value) of 0.000. Because the p-value is less than 0.05, the alternative hypothesis can be accepted and the null hypothesis rejected. So we can conclude that Cultural norms and gender roles significantly impact the level of public participation intention in the EIA process, with marginalized groups experiencing lower levels of engagement at a 95% level of significance and there is a positive moderate relationship between 2 variables.

The fourth hypothesis of the study is that Strong institutional support and transparency from government authorities positively influence public participation intention in EIAs have a Pearson correlation value of 0.164 and Pearson chi-square value(p-value) of 0.011. Because the p-value is less than 0.05, the alternative hypothesis can be accepted and the null hypothesis rejected. So we can conclude that Strong institutional support and transparency from government authorities positively influence public participation intention in EIAs at a 95% level of significance and there is a positive weak relationship between the 2 variables

The fifth hypothesis of the study is that the Implementation of capacity-building initiatives (e.g., training, awareness campaigns) significantly enhances public participation intention in the EIA process has a Pearson correlation value of 0.229 and Pearson chi-square value(p-value) of 0.000. Because the p-value is less than 0.05, the alternative hypothesis can be accepted and the null hypothesis rejected. So we can conclude that the Implementation of capacity-building initiatives (e.g., training, awareness campaigns) significantly enhances public participation intention in the EIA process at 95% level of significance and there is a positive moderate relationship between 2 variables.

The sixth hypothesis of the study is that Trust between community members and government authorities mediates the relationship between public participation and project outcomes in EIAs have a Pearson correlation value of 0.361 and Pearson chi-square value(p value) of 0.000. Because the p value is less than 0.05, the alternative hypothesis can be accepted and the null hypothesis rejected. So we can conclude that Trust between community members and government authorities mediates the relationship between public participation and project outcomes in EIAs at 95% level of significance and there is a positive moderate relationship between 2 variables

5. Conclusion

This study aims to identify and assess the challenges that affect public participation in the Environmental Impact Assessment process in Sri Lanka. The public participation process in EIA is recognized as essential for fostering accountability, transparency, and informed decision-making. It also promotes sustainable development by addressing community matters and incorporating local knowledge. Despite the significant benefits, public participation often creates significant challenges like communication barriers, low levels of access to information, and shortcomings of institutions.

The study's conclusions showed that there are significant variables that will affect public involvement in Sri Lanka's Environmental Impact Assessment process.

These factors include limited access to information and language barriers, cultural norms, gender roles, level of education, and trust between government authorities and community members. These results emphasized a significant relationship between the mentioned factors and public participation intentions, suggesting that improving these key significant areas will enhance community engagement in the EIA process.

5.1. Key Findings

Limited access to important information about projects as well as materials absence in local languages are significant challenge to public participation. This study proved a moderate relationship between these factors indicating that overcoming communication challenges is crucial

Level of Education: Higher education levels of community members are positively correlated with public participation intention. However, it shows a weak relationship, suggesting that though education is important it is not the sole determinant of public participation

Gender Roles and Cultural Norms: Especially gender norms play a crucial role when limiting community engagement. The low level of participation of marginalized groups especially women shows the need for more strategies that are inclusive.

Institutional Transparency and Support: Strong support and transparency from authorities of government positively impact public participation. Inadequate strength in institutions and lack of clarity impede trust and cooperation between the general public and the management of the profession.

Capacity Building: Public participation is greatly enhanced through the use of training and awareness programs, which emphasize the importance of skills required to participate in the EIA process and emphasize the community

Trust as a mediating factor: Trust between government authorities and community members mediates the correlation between public participation intention. Trust is key to successful EIA in Sri Lanka

Recommendations

Increase access to information: Project managers should ensure that all relevant EIA information is readily available and provided in the local language. This facilitates improved communication and can encourage greater community engagement.

- **Promote training and consciousness:** Workshops and academic programs must be prepared to grow public recognition approximately the significance of the EIA process. The cognizance of those packages needs to be on all groups, however specifically deprived companies.
- **Removal of cultural and gender boundaries:** Special mechanisms for the participation of marginalized organizations, especially girls, ought to be developed. This may additionally include assisting gender equality in choice-making processes, admiration for network customs, and promoting participation.
- **Enhance institutional support:** Government agencies should exhibit accountability and openness throughout the EIA process. Building trust and enhancing cooperation can be achieved through forums for open dialogue and continued community engagement.
- **Capacity building:** Citizen participation can be enhanced by funding training programs for community members and state employees. Equipping communities with the necessary skills and tools will enable them to make greater contributions to the EIA process.

Strengthening public participation in EIA, addressing these issues, and implementing the proposed strategies will lead to effective environmental governance and sustainable development regular results in Gampaha District and beyond

Compliance with ethical standards

Disclosure of conflict of interest

No conflict of interest to be disclosed.

References

- [1] Aregbeshola, M. (2009). PUBLIC PARTICIPATION IN ENVIRONMENTAL IMPACT ASSESSMENT: AN EFFECTIVE TOOL FOR SUSTAINABLE DEVELOPMENT A South African perspective (Gautrain). South Africa: University of South Africa.
- [2] Atieno, O.L., Mutui, F.N., & Wabwire, E., (2019). An Analysis of the Factors Affecting Public Participation in Environmental Impact Assessment: Case Study of Selected Projects in Nairobi City County, Kenya. European Scientific Journal, 284-303
- [3] Dara, P., Reddy, T., & Gelaye, K. (2017). Public Participation In Environmental Impact Assessment-Legal Framework. International Reserach of Journal-Granthaalayah, 270-274.

- [4] Glucker, A. (2012). Public participation in Environmental Impact Assessment (EIA) –An investigation into theory and practice in Costa Rica and Nicaragua. Germany: Utrecht University.
- [5] Glucker, A. N., Driessen, P., Kolhoff, A., & Runhaar, H. (2013). Public participation in environmental impact assessment: Why, who and how? *Environmental Impact Assessment Review*, 104-111.
- [6] Kakonge, J. O. (2012). PROBLEMS WITH PUBLIC PARTICIPATION IN EIA. *Impact Assessment*, 309-320.
- [7] Kanu, E. J., Tyonum, E. T., & Uchegbu, S. N. (2018). PUBLIC PARTICIPATION IN ENVIRONMENTAL IMPACT ASSESSMENT (EIA): A CRITICAL ANALYSIS. *Architecture and Engineering*, 7-12.
- [8] Mnengwane, J. (2014). The effectiveness of public participation in Environmental Impact Assessment in selected South African case studies. North West University.
- [9] Mokhtar, N. (2016). A Comparative Study On Public Participation In Environmental Impact Assessment (EIA) In Malaysia and European Union. Tilburg University.
- [10] Nadeem, O., & Fischer, T. B. (2011). An evaluation framework for effective public participation in EIA in Pakistan. *Environmental Impact Assessment Review*, 36-47.
- [11] Okello, N., Beevers, L., Douven, W., & Leentvaar, J. (2017). The doing and un-doing of public participation during environmental impact assessments in Kenya. *Impact Assessment and Project Appraisal* , 217-226.
- [12] Peterson, J. (2017). Public Participation in Environmental Impact Assessment of Hydropower plants in Nepal:A context specific Approach. Colombo: International Water Management.
- [13] Weerasinghe,S.,(1997),Existing Legal Framework for Environmental Impact Assessment.In S. K. Hennayake, A. Hewage, M. S. WIJeratne, & S. E. Yasaratne, *Environmental Impact Assessment:The Sri Lankan Experience* (pp. 17-25). Peradeniya: The Centre for Environmental Studies.