

Public Participation for Urban Infrastructure Development

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Abstract

Public participation is the involvement and collaboration with public to get their ideas and opinions, for decision making to bring a positive and sustainable development in the community. This research focuses on government initiatives to bring together the citizens of the community for discussions on the necessary consideration for the sewerage and drainage and road infrastructure development as per the STIUEIP project. The working mechanism of the government to complete the project in a community rapidly without fully understanding the community through the public perspective led to the project being withheld temporarily as it misses the necessities of the local citizens and the surroundings. The research explores the citizens of the community, their activities, behavior, and willingness to support the government. Mixed methods for case study is used to understand the different initiatives carried out by the Birgunj Metropolitan City for increment in participation during the planning and policy making stages. Along with literature study, paper survey was distributed among 80 residents, semi-structured interviews were conducted with 7 officials affiliated with the project. The activities and action of the government or the public explored and found during the research help us to determine the gap between the public and the local government for working collaborating with each other. The willingness for participation and contribution in infrastructural development among Adarshnagar residents is very high. However, this is contrasted by low sense of ownership among the residents which is contributed by less effective participatory approaches by the local government leading to ineffective information relay and top accumulation of decision making power.

Keywords

Public Participation, STIUEIP, Government Initiatives, Public, Willingness

1. Introduction

Rapid urbanization is a major factor for development of numerous urban cores and cities leading to the development of urban infrastructures i.e., physical, and social infrastructure. For the development of urban infrastructure within a community, involvement and interaction among the people along with their observational sentiments plays an important role. According to Nations, a city is composed up of people and families with various origins, cultures, interests, and ambitions [1]. Social values reflect the expressions of the public and their responsible nature for the community which is an influential behavior necessary for the development of the community and its people. These expressions majorly put emphasis on the nature of the focus of public, culture, interest, and desires. Cities, an area with numerous challenges in the surrounding community can be planned with major focus on the vision of the people leading towards a

prosper, peaceful, and a cooperative community. The important factor is to solve such problem through heterogeneous and participative design collaboration appears to be the best alternative for problem solving [2]. The top-down model approach followed by the central and local level government considers the participation process as a passive element where all the members of the community are not incorporated arising a challenge to inspire and make aware the silent and marginalized group for getting involved an active participation approach [3] In Nepal planning at local level begun during the panchayat regime as a part of rural development programs with the idea to collect local needs and demands. The local Self Governance Act, 1999 introduced participatory democratic governance at local level along with the decentralization approach to promote bottom-up approach, focus on demand-driven governance and tying the local and central government systems together setting a trend which gave rise to the existing

style of participatory planning. The seeding of a perspective process which allows representation of group of participants to critically analyze and resolve the problem either by forming new public policy or planning a new proposal with the major focus for increment of community participation seems to be lacking. People's participation in decision making has been highly prioritized during planning phase or policy making phase by the government, policymakers, scholars etc. to boost up the awareness about participation and enhancement of participatory approaches. For a sustainable development of infrastructure, participation should begin from the community level and its residents. The socio-economic background, necessary infrastructures, and its development challenges etc., of the community are much more known by the residents. The major consideration is to give opportunities to the people of the community for getting involved from the grass root level of planning or policy making [4]. The positive or negative opinions of the participants or of the local citizens upon the projects or policies plays a major factor which exponentially increase the rate success of the project. The citizens living in a community share their ideas, perspective of the individuals leading towards for a more effective and acceptable project as per the choice for the community. The initiatives and approaches followed by the local government during the planning process and policy making phases for involving the residents, their opinions and interest will be a major factor to be considered for a sustainable infrastructural development of roads and sewage. The citizens of the community are the prominent players to develop the road and sewage infrastructure. The cooperation and understanding between the residents and the surrounding urban infrastructure is a prime important condition for properly executing the different planning process and policy making phases considered by the government, planners etc., during the project. The study of the behavioral change of the citizens, their willingness to collaborate with each other as a responsible citizen or with the governmental institutions, stakeholders etc. is major research to be conducted [5]. Public and their Participation are the two undetachable components for the urban infrastructural development in the community. The citizens living within the community along with the collaboration of the government can play a major role for the development or deterioration of the urban infrastructures. Public must be given opportunities,

have their voices heard, provide authoritative power for decision making and alterations. These different activities are a crucial process for the determination of the impact caused by the involvement of the public during the development different planning process and policies. These decisions and the results can be modified both chronologically and spatially as per the necessity and considering the best condition for the community in present context as well as in future context. Adarshnagar, a business hub in Birgunj where proliferation of population has pressurized the limited available infrastructure to fulfil the basic needs of the citizens. The Top-Down approach guiding the government is a major limiting factor constraining the participation of the public during formulation of planning process or policy making. The willingness and behavior of the people living in the community is a major factor for inadequate and unsustainable infrastructural development. The research additionally explores possibilities of different participatory approaches for a project followed by the local institutional organization for better coordination with the public, to understand their queries and for the development and betterment of the livelihood of the citizen and the community. This study assists in determining a feasible planning technique for developing the participation approach and develop the opportunity to change decisions and feel sense of ownership over the community plan, in an economic hub like Birgunj metropolitan city.

2. Research Objectives

The main objective of this research is to understand the importance of public participation for the development of urban infrastructure within the community. For achieving it, the specific objectives are:

1. To analyze different government initiatives influencing willingness of people for participatory approaches.
2. To understand how sense of ownership improves participatory approach in a community.
3. To explore different participatory approaches which are the major factor leading to urban infrastructural development.

3. Study Area

Birgunj metropolitan city is the leading trade hub in the central terai region of Nepal which consists of

major economic and industrial zones of Nepal. The Integrated Action Plan 1998 of Birgunj metropolitan city aims to enhance the municipality in all aspects, including physical, economical, and institutional development. Physical (Roads, Drains, Sanitations) Development Plan and Multisectoral Investment plan were listed as the top priority project which seems to be exactly major recommendations in present context [6]. A trade hub and metropolitan city, the scale of infrastructure development is found to be lagging considering the proliferation of the population in Adarsh Nagar. It represents itself as a mixture of planned residential and commercial area. The inadequate infrastructure for the proliferated population of Adarsh Nagar reflects the inefficiency of the government to acts and understand the infrastructural needs of the citizens living in the community. This research analyses the behavior and acts of the citizens for the development of the existing and necessary infrastructure and tries to analyze the infrastructural development gap that exists there. The study also focuses on the residents of the area and their degree of willingness of voluntary participation or collaboration with the local level government and the different development committee present in the locality.

4. Methodology

The research was carried out to understand the necessity of public participation for the overall infrastructural development in Adarshnagar, Birgunj. The research followed qualitative approach within the post-positivist paradigm. Overt observation is used where the observer can directly interact with the public and collect data following formal procedure, social events. This helps us to visualize and understand the interest, necessity infrastructure required and gives us proper ideas about the willingness of the citizens. Focused group discussion was carried out using closed ended questionnaire survey to grasp the perception of the local government bodies and its representatives about the importance of participatory approaches and the different initiatives by them for influencing the public leading to the increase of the awareness and willingness of the public to collaborate them for the urban infrastructural development of the community. The open-ended interview with the public helps us to give proper information about their level of awareness about necessity of participation and collaboration with the

government and vice versa. The interviews helped us to understand the interest and willingness to participate in different events, training programs, etc. organized by the Local government for the infrastructural development of the community. Secondary data were collected using different reports of STIUEIP¹ project, SMEC survey report etc. The STIUEIP project began in the year 2010 to develop the sewer and drainage management system in Birgunj. It developed as a project agreement between Birgunj Metropolitan City, Town Development Fund, Nepal Government and Asian Development Bank. The minute of participatory program also helped in collecting relevant information for the research. Finally, Data interpretation and analysis was carried out from the available reports and data collected form the survey. The population of the study area i.e. ward nos. 7, 8, and 13 is 32,158. For this population, a sample size of 80 is needed for 95

5. Data Analysis

5.1 Current condition of Road and Sewage Infrastructure

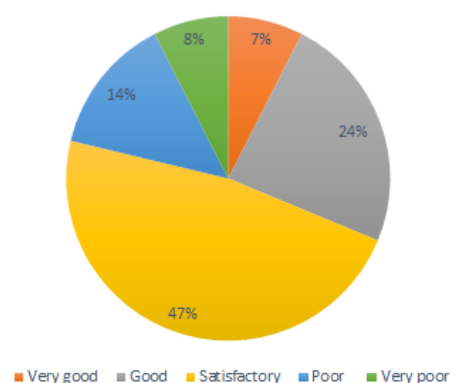


Figure 1: Current Road Condition

¹Secondary Town Integrated Urban Environmental Improvement Project

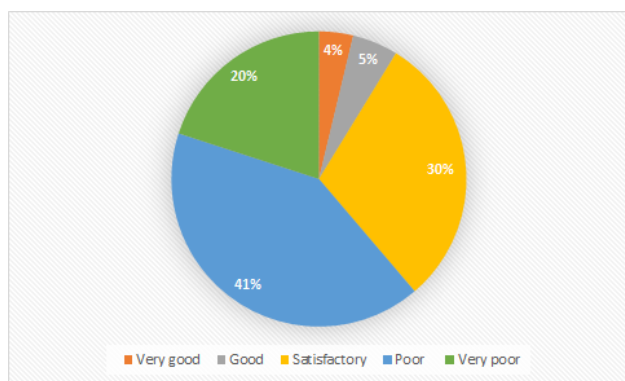


Figure 2: Current sewer and drainage condition

- More than 70% of the respondents find the current road conditions in the neighborhood to be either satisfactory or good, however, more than half of the respondents indicated that they find the current condition of sewer drainage and waste management condition to be either poor or very poor.
- It is seen that the education level of the residents doesn't make any significant difference in their awareness of the status of road and sewerage infrastructure related development activities conducted by the local government.
- Majority of the population between age group 15-45 rated the current road conditions to be satisfactory and much more repairment work must be carried out by the government.
- Majority of the people were not having any idea about the STIUEIP project and was carried out by the local government bodies.

5.2 Initiatives from local government and Collaborators

The Government initiated Secondary Towns Integrated Urban Environmental Improvement Project (STIUEIP) in Birgunj. The government conducted survey hiring SMEC as a consultant to determine the outfall of the sewage and Drainage. The government was majorly focused to connect each household to the sewer line, but the process is going slow as it has been affected by external factor like 2015 Earthquake, Strike on Madesh, etc. The STIUEIP project focused on development of sewer and drainage management and development of 10 proposed outfall out of which six are now functioning. The government established social development committee under Project Implementation Unit (PIU) to execute public awareness campaigns, host interactive focus group

talks to boost up the awareness and interest of the citizens and make them ready for mobilizing in the project. The project constructed a secondary drain as a diversion drain to distribute the load of the Main Drain which is blocked due to the construction of the infrastructure above it.

5.3 Public Participation

5.3.1 Project awareness

- Overall, majority (60.8%) of the respondents didn't know about the STIUEIP project while majority (63.7%) of the respondents knew about the solid waste management training conducted by Birgunj Metropolitan City.
- Public with bachelor or master's degree are much more aware about the STIUEIP project
- Majority of people between age group 26-45 have knowledge about public participation.

5.3.2 Information Relay

- An overwhelming majority (95%) responded that they are not informed of budget allocation for any road nor sewer infrastructure development in the neighborhood, while around 70% indicated that they never get informed about such projects.
- Improper information flow by the government. There is no proper mechanism followed by the government to give information about the project at the beginning or in case of pre-project scenario.

5.3.3 Government Approach

5.3.3.1 Stage

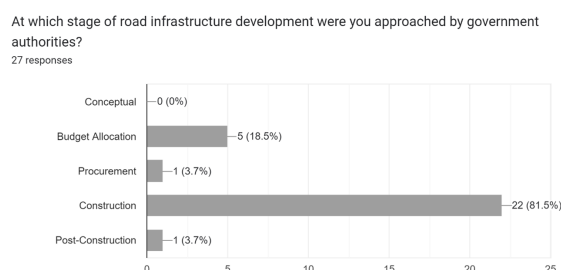


Figure 3: Approach made by the Government for road infrastructure

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At what stage of sewer, drainage and waste management infrastructure development were you approached by government authorities?
18 responses

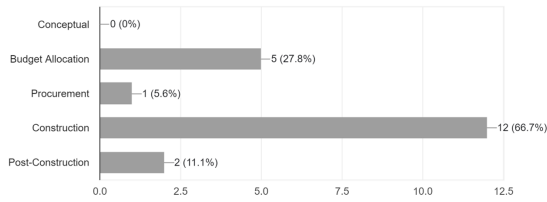


Figure 4: Approach made by the Government for sewer and drainage infrastructure

- 81.5% of People are mostly aware after they have visual observation during the construction of a road project, while 67% of a sewer management project.

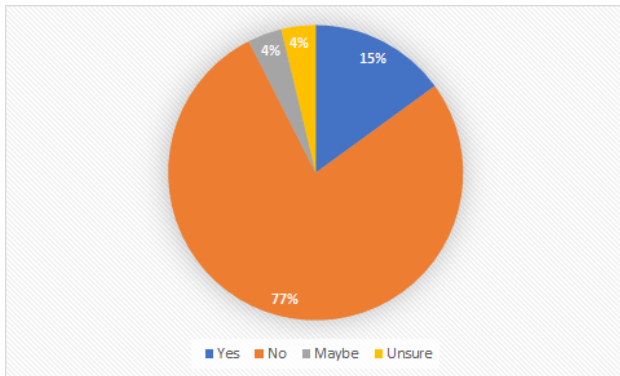


Figure 5: Training provided by the Government for road infrastructure

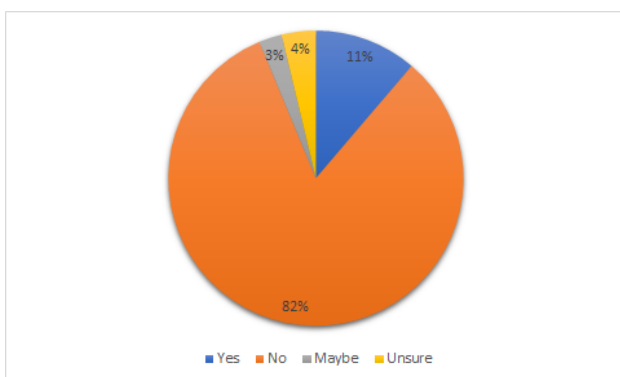


Figure 6: Training provided by the Government for sewer and drainage infrastructure

- Although 15% of the people were approached by the local government and/or other agencies for training programs related to road infrastructure development, almost 78% said they were never approached. Likewise, only 11% of the people

were approached by the local government and/or other agencies for training programs related to sewer infrastructure development, and almost 83% said they were never approached.

- The response of the citizens to the STIUEIP project for Sewerage and road development is satisfactory.
- The local government major focus is to bring the project to completion rather than involve the public for discussion on coming up with better ideas for the STIUEIP project.

5.3.3.2 Meetings

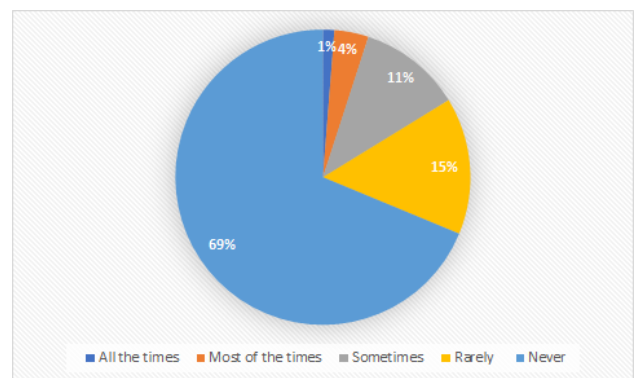


Figure 7: Meeting between elected representative and the citizens for road information

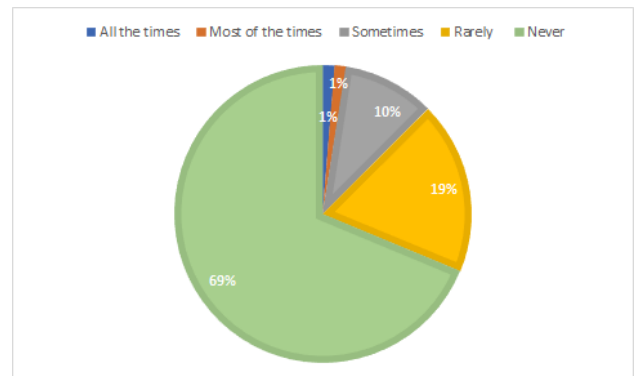


Figure 8: Meeting between elected representative and the citizens for sewer and drainage information

- Almost 70% of the respondents indicated that there are never any meetings between the elected representatives and the citizens held for discussion on road nor sewer infrastructure. The government is not much concerned on approaching the citizens to interact, hear their voices and ideas, and improve their understanding through different events and training.

- Most of the people feel that their ideas and opinion regarding road infrastructure development are never considered/heard by the government.

5.3.3.3 Individual Approach

- Majority (84%) of the Public are willing to participate in events/programs for infrastructural development. And 85% are willing to participate for sewer infrastructure.
- Education helps public to share the problems in the community to the concerned department.

5.4 Perception of the public

- Majority are very positive for the development activities being carried out in the community and are eager to get involved by themselves.
- The voice, ideas, or opinions of the public of the community are rarely taken into consideration by the local bodies.

5.5 Willingness to participate

5.5.1 Individual's Contribution

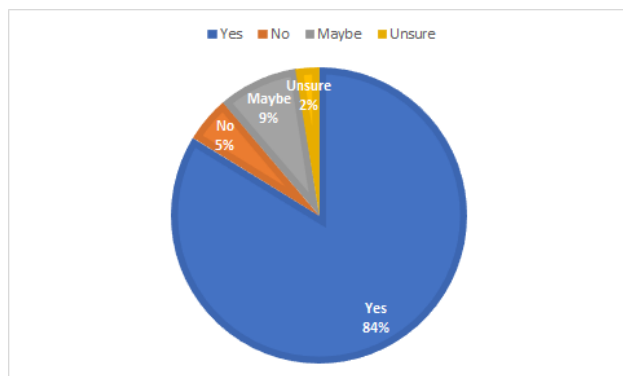


Figure 9: Willingness to participate for development of road infrastructure

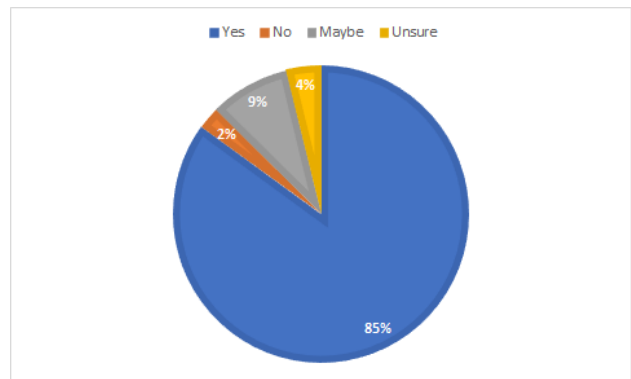


Figure 10: Willingness to participate for development of sewer and drainage infrastructure

- Majority of the respondents indicated that they would contribute their time and technical skill for road and sewer infrastructure development in the community. People with proper knowledge, awareness and understanding about necessity of the individuals for the community are willing to contribute their time and technical knowledge.
- Willingness of the people of different age group are high to actively get engaged with the government to work for the development of the road and sewage infrastructure of STIUEIP project.
- Majority of the people are not much concerned on contacting the government as government are not much concerned for listening to the opinions of the public.
- People lack the consideration to discuss the decision made by the government. The social active group of the community thinks giving opportunity and power to the public will lead to a smooth and collaborative development of the different communal space along with the public actions and leading to the infrastructural development.

6. Findings and Discussions

Public Participation is majorly influenced by the different initiatives carried out by the Government being concerned to aware the citizens and increase their involvement in any urban infrastructural development project. The flow of information between the government and the citizens from the beginning to the end is must for making the citizens aware and boost up their awareness and willingness to contribute on their will, giving opinions, ideas and collaborate for the successful and sustainable

development of the project in the community. The study focusing on the government approaches to execute awareness campaign for the increment of citizens participation seems to not affective as stated in the minutes of the STIUEIP project. The study highlighted that the government failed to deliver the information about the STIUEIP project to the citizens of the community. The government showed less enthusiasm to approach the citizens for showing their active participation on the Community development project with major focus on the completion of the project as the government doesn't have any interactions with the public. Government activeness for its people and the community plays an important role for bringing together the public in a community. The public living in the Adarshnagar area is familiar to the term public participation but seems they don't have proper understanding about the importance of public and their opinions in any project for the development. The citizen's willingness is higher to get themselves engaged in different events/ training program collaborating with the local government to get involved by give their technical or physical skills for the development of the infrastructure. The study also shows people think that their voices, ideas, and opinions are not considered by the local government. They are not willing to contact the local government for sharing or giving information about different problems in the society because they are from the minority group or are certain group of public handing overall responsibilities to the government. In this way, the high willingness for participation and contribution in infrastructural development among Adarshnagar residents is contrasted by low sense of ownership among the residents which is contributed by less effective participatory approaches by the local government leading to ineffective information relay and top accumulation of decision making power. The study also shows the interest of the certain citizens to have power to make decision and alter the decision in collaborating with the local bodies can lead a sustainable project for the present and the future.

7. Conclusion

Public Participation in a society, community is a necessity for the development of the physical and

social amenities with a neighborhood. In Nepal, Participatory approaches are emerging, the formation of three tiers of government had given opportunity to the citizens to express the problems of the community, discuss and analyze the problem and collaborate with each other to come up with a feasible solution for the betterment of the community. The information relay process by the government is ineffective making the citizens look for the community, The government conducts the project hindering the necessity of the community and expectations of support for the urban infrastructural development in the community. The local government bodies should initiate different campaign, awareness programs to increase the involvement of the public and conduct interaction to understand ideas, opinions, and necessity of the community on the different projects. Most of the public are aware about participation and its importance for the successfullness of the project. The citizens living in the community are eager to collaborate for the development projects in the community but due to lack of flow of information people are unknown about the project and its activities or the citizens thinks it's the duty of the government to implement the project. The lack of power to make decision or to overtake the decision and make changes collaborating with the government seems to impact the participatory approach on the community.

References

- [1] United Nation. Goal 11: Make cities and human settlements inclusive, safe, resilient and sustainable. 2018.
- [2] Daren C. Brabham. Noticing design/recognizing failure in the wake of hurricane katrina. 2006.
- [3] Thomas Ng, Terry S.Li, H.Y.Wong, and James M.W. Rethinking public participation in infrastructure projects. *Proceedings of the Institution of Civil Engineers: Municipal Engineer*, 165:101103, 2012.
- [4] Abiodun M Shittu, Ayodele I Musbaudeen. Public participation in local government planning and development: Evidence from lagos state, nigeria. 2015.
- [5] Thanesar Bhusal. Examining citizen participation in local policymaking: An analysis of nepal's participatory planning process. 2018.
- [6] SMEC. Secondary towns integrated urban environmental improvement project (stiueip) birgunj, 2005.