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Human Intervention for Protecting Urban Green Cover: Case of Nagpur, India

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Abstract

The important roles played by green spaces are social, economic, cultural and environmental aspects of sustainable development. Indian urban areas are developing at a very fast pace; simultaneously there is a rapid growth in population too, which impacts the ratio of demand and supply of basic services resulting to sustainability issues. This influences the interfaces between urbanization, population and the environment, as the surroundings are at the receiving end, leading to overexploitation of natural resources especially breathing spaces as parks, gardens and small forests on the name of infrastructural development. The situation augments due to absence of citizen participation in urban governance especially Urban Local Bodies (ULB). Though the 74th Constitution Amendment Act in India has given this opportunity to strengthen the links between the citizens and local democratic governance by way of public participation, the ground realities are different reducing the transparency of accountability of ULB. Based on this, the paper presents the case study of city of Nagpur, 2nd capital of state of Maharashtra, India, how environmental NGOs and citizens fought an eleven month struggle, venture to save a green patch of Nagpur, the Bharat Van from the clutches of local government bodies saving the ill effects on environment. This study is an attempt to highlight the necessity of an integrated approach regarding that the planning, monitoring, designing and maintaining of urban green spaces is required for improving the environmental sustainability in cities in different countries.

Keywords

Urbanization, ULB, Governance, Participation, Sustainability

1. Introduction

Urban sustainability has become a strategic issue in today's rapid urbanization scenario all over the world. Especially in India, due to migration of rural popula-

tion, this has resulted into a threat to sustainable development of cities. The ever increasing population adds to the woe, burdening the supply of basic services like sanitation, housing, water etc. [1]. The urban local governance faces challenges to fulfill these demands. The biggest threat is to the breathing spaces like green pockets in urban areas which are depleting fast due to the over ambitious outlook of politicians and developers in the name of development.

There is no adequate provision for public involvement and participation in policy development and decision making in improving urban governance. In India, the 74th constitutional amendment act (1993) has given powers to urban local bodies (ULB) as the lowest unit of governance in cities and towns, mandated to give power to people via the Municipal Corporations. Good governance here refers to decision making that is participatory, inclusive including the views of disempowered, egalitarian, accountable and transparent, where corruption is minimized [2].

Taking this as a base, the paper presents a case study of an eleven month struggle of citizens of one neighborhood to save green cover of city of Nagpur, Maharashtra, India. The process involved governmental and non-governmental agencies following an elaborate judicial procedure. It was noted to be one of the longest protests that have happened in city's history. This is an example of inclusive community engagement and equitable neighborhood and public space planning to promote just people environment relationship.

1.1. Public Involvement in Urban Governance

Citizen's participation can be understood as a forum wherein people can participate in the decision making process and are involved in local affairs. United Nations has defined "It is the creation of opportunities to enable all members of a community to contribute to and influence development process and to share equitably the fruits of development" [3]. The current perspectives of "Citizen Participation is citizens" can govern themselves by influencing decision making processes that affect their lives, their livelihoods, their communities, their environment and their societies [1]. There are four different significant meanings of participation referring to the history. First is; "participation from below" in 1960s and early 1970s. With the rapid growth of development in all sectors in the early 1980s, here participation was viewed as an approach for project delivery. The third perspective was developed during early 1990s; a new terminology came in to picture "Stakeholders in development discourses". Participation emerged as a larger trend in the end of 1990s, where it began to be viewed as "right of citizens" rather than beneficiaries.

1.2. Urban Governance in Indian Context

Historically, India has had a strong local government [4]. However, in developing nations like India, due to rapid urbanization cities are becoming the centers for social, economic and political development. With such exponential growth,

mechanisms should be developed to ensure that cities grow in an inclusive manner. The essential basic services should be made available to all the sections of the society in an impartial way. The challenges for the urban governance are manifold, particularly the participation of citizens in decision making in planning and designing processes. Especially for the marginalized and vulnerable ones who are mostly neglected in these endeavors. Considering the above said factors, in India the 74th constitutional amendments acts (CAA) was sanctioned in 1993 for urban areas extending constitutional status to urban local governing bodies (ULB) like municipalities and municipal councils [5]. It paved way for people participation especially the marginalized citizens to contribute in sustainable development of their communities. The amendment also provided setting up of ward committees having a population more than 300,000 or more, consisting of one or two wards, helped the citizens to participate and put forward their concern. To further the institutionalization of people participation in urban governance, in 2006 government issued a model law "The Nagara Raj Bill" (NRB) or "Public Participation Law". Under Jawaharlal Nehru National Urban Renewal Mission (JNNRUM), provision for fund for community participation (CPF) was also initiated (Figure 1).

Despite of these reforms and amendments as CAA, the ground reality communicates that participation of people in governance and decision making has its own set of challenges. Citizens are rarely included or involved in decision making especially the marginalized ones who indeed are the most affected by emerging crises of urbanization [6]. The reasons attributed are, varied factors as improper coordination between the implementation of policies and overall laid-back attitude and skepticism amongst citizens towards entire governance system.

1.3. Rapid Urbanization in India

Sustainability of Indian cities is threatened by climate change. The reasons are population explosion, generation of urban heat islands, waning of green cover, and increase in air pollution and carbon emissions resulting in to deterioration in living environments [7]. The unplanned urban growth, rapid urbanization
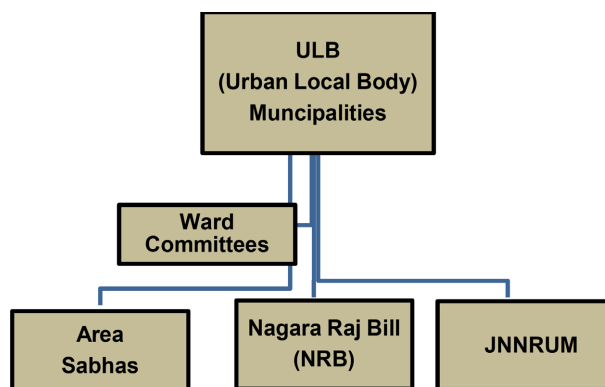

Figure 1. Flow chart showing constitutional status of ULB. Diagram by the author.

and widespread urban sprawl have depleted green cover and increased urban vulnerability to climate change. Lack of public participation in urban governance adds to the anguishes and constrains the effectiveness of policy decisions. The shrinking of residential gardens and green cover on the name of development adds to environmental degradation. The observed change in lifestyle at the expense of garden space indicates devaluation of urban green cover. The consumer greed, policy makers and political intrusion in development of cities are indifferent about the drastic reduction in quantum of green cover resulting in to reduction in the ratio of open spaces to built spaces. Dearth of policies on urban afforestation and greening of built up spaces has affected the balance of built-up spaces and green cover in urban development leading to unsustainable development.

Based on the case study of city of Nagpur, Maharashtra, India, discussed in detail in this paper suggests that a combination of leaders willing to pioneer good governance, capable third party facilitators, and strong organic participation groups working through the structured approaches of deliberative democracy can effectively integrate the public into civic decision-making. It is one of the best examples of public participation in urban governance of how the policy makers, urban planners and urban local body had to bow down to the public pressure for saving a huge patch of green cover with thousands of trees in the center of the city and saving the micro climate of the region from the lashes of heavy construction.

2. Research Objectives

- To understand public participation and engagement in urban governance in India.
- Study of the relevance of the 74th Constitution Amendment Act of 1993.
- To analyze and evaluate participative local area planning practices in India at local urban planning level.
- What are the challenges and factors responsible for weak interplay between policies and practices and absence of citizen participation in urban governance?
- To substantiate this theory, study of a case of public participation for saving Bharat Van, Nagpur from the government agencies.

3. Methods

3.1. Pioneering New Routes to Achieve Good Governance - Instituting Deliberative Democracy in Nagpur, India: Case Study

About Nagpur: The paper offers an empirical case study of how the citizens of a neighborhood of city of Nagpur stopped the construction of proposed road through a dense forest with nearly 1000 old trees by deliberative democracy following judicial path and got justice after a prolonged battle. It has also focused on the public participative approach in urban governance by involving the Local Urban Body like the PWD, Nagpur Municipal Corporation, and Maha Metro.

Nagpur is the third largest city and the winter capital of the Indian state of Maharashtra. Nagpur is projected to be the fifth fastest growing city in the world from 2019 to 2035. The city was adjudged the 20th cleanest city in India and the top mover in the western zone as per Swatch Sarvekshan 2016. It has been proposed as one of the Smart Cities in Maharashtra and is one of the top ten cities in India in Smart City Project execution. Nagpur is located at the exact center of the Indian subcontinent. The city has the Zero Mile Stone locating the geographical center of India. Nagpur city is dotted with natural and artificial lakes. The largest lake is Ambazari Lake. Other natural lakes include Gorewada Lake and Futula lake. All major highways NH-6 and NH-7 and major railway trunk routes pass through the city. Nagpur has tropical savannah climate with hot and dry conditions prevailing most of the year. Max. Temp. is "27.7°C". And mean min. temp. is 14°C. May is the hottest month with mean daily max. Temperature is "42.7°C", which may reach up to "48°C" [8].

3.2. Development of Futala Lake and PDKV Land under Local Urban Government

Nagpur is administered by Nagpur Municipal Corporation (NMC) and carries out activities under various committees like public works, roads, sanitation, education etc. Nagpur Improvement Trust (NIT) is a local planning authority which works with the NMC and carries out the development of the civic infrastructure and new urban areas on its behalf. Being second capital of state of Maharashtra, central location and declared as a smart city, Nagpur came under political patronage and has seen tremendous infrastructural development in recent years. The development started with widening and concretization of roads in various parts of the city. Another project conceived was Nagpur Maha Metro Rail under the banner of Nagpur Metro Rail Corporation Limited proposing Metro Rail service, Nagpur being the city more than 2 million populations. One of the most prestigious and expensive project was the beautification of Futala Lake and an under tunnel with a viewing gallery. Concretization of road abutting to the lake was also included in the plan. Public works Department (PWD) engaged Maha Metro to execute the work. The other side of the lake is a lush green land of Dr. Panjabrao Dehmukh Krishi Vidyapeeth (PDKV) as a thick forest, serene surroundings and one of the biodiversity hotspot remaining in city of Nagpur. The wheels started rolling when the Maha Metro officials told one of the leading news daily of city, Times of India (TOI) that the stretch along Futala Lake will be closed for redevelopment for one year. The new road was proposed through the lush green land of PDKV to be used for diverting traffic during construction (Figure 2).

The lake covers sixty acres of land and built by Bhosle kings of Nagpur and declared as Grade One Heritage Structure of Nagpur (Figure 3). In 2003 beautification was done on the banks of Futala Lake [9]. PDKV land in the heart of the city of Nagpur and stretches nearly 1.8 km from the lake side and 1.5 km from the side of NH7. The land is very serene and is covered by trees which are
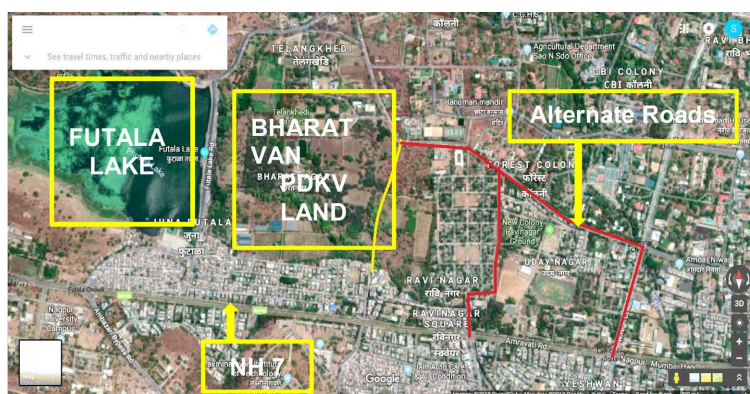
Figure 2. Location of Bharat Van and Futala Lake (21st May 2018) Public domain image from google.com/maps, Nagpur, Maharashtra, India.

Figure 3. View of Futala Lake (15th September 2019). Public domain image from https://www.tripadvisor.in/LocationPhotoDirectLink.

"50 - 100 years old". A meandering stream is flowing through the land carrying the overflowing water of Futala Lake and sewage water of nearby residential areas. Many birds are sighted in the exotic forest. The ground is covered with thick biomass, which acts as water absorbing sponge to the ground. The land creates micro climate and reduces the atmospheric and as well as soil temperature maintaining the sustainability in surrounding areas.

3.3. Protests of Environmental Activists and Citizens of Nagpur

The citizens got the attention of the news published in prominent news dailies of the city, TOI and The Hitavada, about the construction of proposed road from a small forest surrounding the Futala lake and crossing a lush green patch of PDKV land located near a neighborhood viz. Bharat Nagar, published on 27th October 2018. Many environmental NGOs and citizens who were worried about the climate of Nagpur started protesting against the decision taken by the Government funded big shot constructors of the city. Irrespective of the strong sentiments of people against the proposed road through the forest, Maha Metro had decided to go ahead with the project. The protestors had to approach the High Court. On November 7 2018: The suo motu PIL was filed based on a letter by environmental activist Jaydeep Das, Honorary Wild Life Warden where he cited

TOI reports highlighting respondents' plans to construct a temporary road, which would pass through a lush green patch on the Panjabrao Deshmukh Krishi Vidyapeeth's (PDKV) land, but involves felling of over 558 fully grown trees. Maha Metro had proposed to construct 18 MT wide and 500 mt long Development Plan (DP) road from Mother's Dairy in Bharat Nagar to Maharashtra Jeevan Pradhikaran office in Telangkhedi.

The handful protestors in the initial stages of the nearby wards started getting support of various Green Organizations from city as well as from nearby towns and cities. This was in fact one of the longest protest against any development project in city as it would have impacted generations to come. This protest eventually became a movement initiated by Bharat Nagar residents and christened as "Save Bharat Van (forest land of PDKV) movement" (**Figure 4**).

The protestors' resorted to diverse means of protests as receiving 1500 objection letters from NGOs, other organizations, cooperators and prominent citizens and politicians of the city to be submitted to NMC and Maha Metro [10]. The other strategies were Chipko Movement, forming a human chain in front of Futala Lake, conducting various activities in the environs of Bharat Van and many more to pressurize the government agencies and to make it more perceptible to public at large. The momentum caught the attention of actor producer Dia Mirza, who is United Nations Goodwill Ambassador of India and supported the campaign through social media.

3.4. Public Litigation Process

The offices of Urban Local Governance like Mayor of the city, Deputy Commissioner of Police, Vice-Chancellor of PDKV and National level Government agencies like Managing Director, Maha Metro and Ministry of Environment, Forest and Climate Change were also roped in through correspondence. The prayer was "Unnecessary cutting of 500 trees in the heart of the city for construction of temporary alternate concrete road, by the Nagpur Municipal Corporation (NMC) and Mahametro in consonance with Punjabrao Deshmukh Krishi Vidyapeeth (PKDV), between Bharat Nagar square on Amravati Road to Maharashtra Jeevan Pradhikaran office at Telangkhedi Hanuman Mandir Road, Nagpur". The plea also mentioned: In this regard no consideration has been

Figure 4. Ariel view of Bharat Van. Reproduced with the permission of Dr. Jaydeep Das.

given to the already existing wide and ample alternate routes which will facilitate free and convenient move of vehicles from the proposed site.

There shall be environmental Impact on Nagpur's ecology. There are only a few green pockets in the city that have somehow managed to keep Nagpur on ventilator. This area is an environmental thermo regulator for the city of Nagpur. If these little ventilators are also removed, the population will face with various diseases ranging from lung infections to cancer, because these trees take in the toxins from the air and also help in reduction of green-house gases. Moreover, these green patches help absorb water during rains. The forest also provides home for numerous birds and animals maintaining the flora and fauna of the region.

On 5ᵗʰ December the High Court stepped in the issue as a suo motu PIL was registered. In the first hearing on 28ᵗʰ February 2019, the High Court stayed the chopping of trees bearing in mind the continued public protests which were well supported by the print media and social media, actively involved from day one of the protests. With increased demonstrations, the High Court issued notices to Chief Secretary, NMC and Maha Metro and other respondents included in the case. Despite of this, NMC issued a public notice saying that 101 big and medium trees and 457 small trees are likely to be cut down as they are interfering in the construction process. With the involvement of Union Ministry in conjunction with PWD and Maha Metro, an alternate road going through playground of nearby locality was proposed. Protesters and activists also stood against the survey by State PWD for the said road construction. The Nagpur bench of Bombay High Court on Wednesday orally warned the respondents that fines would be imposed if they failed to reply by next hearing scheduled after two weeks in the Bharat Van tree cutting case.

4. Results

The protest continued for nearly fourteen months of struggle, perseverance and patience of the citizens from all walks of life. The fight started by a small group of environmentalists against the Bharat Van road plan that might have resulted in to unnecessary felling of 550 odd fully grown trees disturbing the balance of environment. The protest witnessed various phases starting from suo motu PIL registered on a letter by Mr. Das, intervention of High Court, deliberations with NMC, Maha Metro, PWD authorities, involving Ministry, linking all the sections of the society of different age groups by conducting activities resulting in to a mammoth movement, "The Bharat Van Movement" for a period of fourteen months. The protest which started on November seven lasted till 1ˢᵗ January and 19ᵗʰ January 2020, wherein the plan of construction of road was dropped by Maha Metro and PWD during a meeting with Municipal Commissioner and request by Maha metro was rejected by NMC, formally respectively [11]. Commemorating the win of Bharat Van, the struggle and the longest protest held in Nagpur should be remembered as a proof that this city is not simply called as

one of the greenest cities in India. This movement has set an example of public participatory approach in decision making process and their involvement in local affairs with a fourteen months struggle to save a green patch of city of Nagpur from the clutches of city developers, government agencies and politicians and protected the chopping of nearly 558 fully grown 50 - 100 years old trees protecting the environment.

5. Summaries

Though the 74th Constitutional Amendment Act (CAA) has introduced the decentralized planning and creation of participatory institutionalized structures, along with other larger economic reforms, in India most of the states, these structures have been put in place through amendments in local government laws. Thus participation from being a localized project in small communities has now permeated institutional structures and planning processes, affecting decision making. There are many constraints on governments to undertake participatory processes due to availability of restricted resources and capacities of the people. Citizens have limited and inadequate information, communicating their requirements to the governing agencies making these planning processes highly questionable. This paper signifies the same sentiment of the citizens of the city of Nagpur, who got acquainted with the proposal of cutting of 558 trees including 101 big and medium trees of different species, and 457 small trees would be affected by the road construction due media coverage. The protesters had to resort to a yearlong litigation process and other method to get the desired results to win the battle.

This gives a clear indication that though spaces and opportunities for citizen participation in urban areas have been created through rules, policies and constitutional provisions often they are not implemented in letter and spirit and there is a huge gap in their execution. Citizens are left with no option but to find different ways and means to resolve their unheard concerns. Here the citizens have followed various measures to fight against all strata of the government authorities like the highest as Ministry of Environment, Union ministry, Maha Metro and local urban government like NMC and PWD and raised their voices to curb their intentions of constructing a road in the lush green patch of PDKV land. For this noble cause nearly 6000 citizens joined their hands despite of any caste, creed and marginalized status. Community participation should be used as a tool considering all three parameters. It is imperative to have coordination between the community, local authorities and built environment to achieve sustainability for better life of citizens.

6. Discussion and Conclusions

1) Public participation in India had been in existence since Town Planning and development acts in the form of objections and suggestions usually at the stage of preparation of existing land use plan preparation. Due to the enactment

of 74th Constitutional Amendment Act (CAA), in the last decade there is a remarkable change in the forms of public participation; many such changes are taking place through participatory mechanisms, of stakeholder consultations or through invitation of public views. Various non-governmental organizations and citizen groups are making use of these reforms for active public participation in urban governance. But the enquiry remains to be answered: what are the conditions that facilitate the process of citizen participation? What encourages citizens to participate and raise their voice and what hinders the same? Institutionally there are provisions for the citizens to participate as well as motivation and interest among the citizens to engage actively for their own good.

2) The process of engagement started in the case of Bharat Van when the matter of decision of constructing a road through PDKV land was published in public domain. It was the concern and anguish of the protestors about the non-involvement of the citizens in decision making process that has been witnessed in this particular resolution.

3) It has become a global issue to control climate change. India is one amongst 180+ countries that has ratified the Paris Climate Agreement, in which we have agreed to extend our green cover. PDKV opposes any sort of compulsory acquisition by the government; however, without any fight, this land comprising of almost one hectare is being handed over to the NMC.

4) Taking the base of Maharashtra Government letter of Urban Development Department, has published the draft regulation for conservation of historical and architectural buildings along with 204 buildings/natural features; they are declared as Grade 1 Heritage structures; there shall be no development considering the environmental aspects of the preserved locations. Even the skyline of such precincts shall be maintained. As mentioned in the paper, the Futala Lake is declared as Grade 1 Heritage structure. The Heritage Society permitted to make changes in the Development Plan and disturbing the precincts of such an old lake.

5) The proposed temporary road was only for one year as proposed by PWD and Maha Metro for traffic problems: was any traffic assessment done by the traffic commissioner for identifying whether there is any such need to create an alternate route? As this part of the city is sparsely populated with comparatively lesser density, there are many alternative roads available that will hardly make any major difference for commuters to pass through the other side.

6) The torch bearers of the city came forward as the environmentalists, print media and the local citizens and the Mother Nature would be thanking them all for their brave side and saving her from the lashes of heavy construction. The project had created uproar among citizens who joined hands to oppose plans to destroy Bharat Van. Citizens had formed a human chain to protect Bharat Van (Figure 5), stood tall with various slogans protestors of various age groups agitated against a not so clever decision to have implemented in the city.

7) From school going students to old environmentalist everyone had their

Figure 5. Chipko movement in Bharat Van. Reproduced with the permission of Dr. Jaydeep Das

(a)

(b)

Figure 6. Painting Contest and Human chain in Bharat Van. Reproduced with the permission of Dr. Jaydeep Das.

strength equally put forth to save Bharat Van. Similar activities like Open Mic, Poster and slogan competitions, Chipko movement (Figure 6(a), Figure 6(b)), missed call activity and innumerable meetings of protesters have proved that public participation in urban governance is an important tool to achieve sustainable development of community, city and world at large.

Conflicts of Interest

The author declares no conflicts of interest regarding the publication of this paper.

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