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Beyond Decision-Making: Unveiling the Transformative Role of Participatory Planning Tools for Community Empowerment

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1.0 Introduction

Community engagement can be considered as a "purposeful process which develops a working relationship between communities, community organizations and public and private bodies to help them to identify and act on community needs and ambitions" (Geekiyanage et al., 2020). This process is very important as it allows one to have a bottom-up approach rather than a top-down one and through this, one can actually identify the needs of the communities and the interventions that will work for them. Many community engagement sessions are done by including representatives from the community along with other stakeholders in the decision-making process leading to a participatory process. Some argue that the degree to which the recipients of a decision are involved in making the decision is the degree to which the decision will be accepted by the public. Conversely, the degree to which the decision-makers are involved in the citizen process is the degree to which the conclusions will be implemented with ease and speed. The greater the range of alternative futures considered in the process, the more likely it is that the conclusions will have a positive and lasting impact. Hence, the purpose of participatory processes is to improve decision-making. Such processes can also educate participants and build consensus for action (Glenn, 2003).

As important as this process sounds, its practical implementation is equally valuable. To conduct a fruitful participatory engagement process, one should have a basic understanding of the context of the problem, the community that is facing it and the social, political and economic factors affecting it. This preliminary information can help in building and creating better participatory tools for fruitful engagement. Participatory tools are essentially methods and techniques used to promote public participation by involving the public in decision-making processes through activities and various engagement methods. These tools have helped in understanding the needs of the communities and presenting them in a more articulated and concise manner. Conducting surveys, interviews and focus group discussions are some of the ways through which government organisations, development practitioners or NGOs have been able to capture the opinions of the people. However, these conventional participatory tools have shown certain limitations. Cilliers and Timmermans (2014) pointed out that reality reveals that participatory planning is often neglected by developers and planners or conducted in a standard questionnaire format that lacks

creativity and innovation. This also results in limited engagement, which often leaves behind many important details that could be crucial for the decision-making process. To address this challenge, innovative participatory instruments, characterized by their creative and meticulous design, offer a unique avenue for individuals and communities to embark on a more profound exploration of issues. They facilitate the identification of root causes, comprehensive impact assessments, and the subsequent dissemination of awareness regarding these matters. These tools, if designed meticulously, can also enable participatory action as a result of participatory engagement. The paper will elaborate on this method of engaging people using unconventional participatory tools by presenting two case studies of different tools created and developed to engage informal communities on issues related to urban development and access to basic facilities.

Based on the author's involvement in the design and facilitation of engagement using these tools, the paper argues that these unconventional participatory tools, which are developed meticulously after studying and analysing the context, communities and the issues, can yield outcomes of far greater significance beyond merely improving the decision-making process as compared to the conventional participatory tools. The paper briefly explains the context of Delhi's informal settlements and the need to develop these unconventional participatory tools, namely Engagement Game Kit: Kaun Hai Master? Kya Hai Plan? and Community-Based Vulnerability Assessment Toolkit (CBVAT), to conduct a participatory engagement in these informal settlements. The paper presents the case studies of these two unconventional participatory tools used in four informal settlements in Delhi focusing on their issues related to urban development and quality of the city's infrastructure. These case studies showcase key findings derived from sessions and capture their respective impacts on the community. The impact of these unconventional participatory tools has been captured using participatory action research (PAR), which is a qualitative research method that involves researcher and participants who are facing issues to collaborate in order to understand the social issues and take action to bring about the change, through informal interviews/dialogues and ethnographic observation. In the end, the paper also conducts a comparative analysis of the conventional and unconventional participatory tools highlighting their significant features while also proving the greater significance and

enhanced role of unconventional participatory tools.

2.0 Literature Review

The concept of public participation and its application has become more prevalent nowadays and has evolved with time. Many people in the 1990s have tried to come up with multiple techniques or methods for citizen or public participation in different fields. This is especially true in public administration and local governance. As per Foutz (1993), citizen participation is defined as "citizen's attempts to influence policy decisions and as a means by which citizen input is incorporated into the decision-making process." His study examines a variety of citizen participation techniques and analyses their relationship with city population size and form of government by using Rosener's 1975 study concerning citizen participation techniques and the functions/goals they serve. The results of this assessment revealed the forms of government and cities of varying sizes that are taking advantage of the benefits of citizen participation. Simultaneously, people have also explored other modes of public participation in decision-making processes. In 1991, the need for enhancing the techniques of public participation occurred. Even though by that time, the component of public participation was accompanied by nearly all local governments and policymakers, most citizen participation techniques have been judged to be less than adequate tools for informing policymakers about the people's will (Kathlene & Martin, 1991). Their paper proposes a better model of participation that can help overcome most of the inadequacies of traditional techniques. It introduces the concept of having citizen panels by randomly selecting community members and having planners and policy analysts work closely with them.

Adding to this, Renn et al. (1993) mentioned that the need for a model that combines technical expertise with public values and preferences is crucial. Their paper acknowledges the consensus on involving the public in decision-making but interestingly also notes the ongoing debate over the structure and procedures for participation. It introduces a model for public participation in policy making, developed in the 1970s by R. Dienel and modified by O. Renn. This model aims to integrate expertise, stakeholder concerns, and citizen preferences to generate consensus-based policy suggestions. It has been applied in various contexts, including urban planning and

technology regulation. The conceptual model for participatory decision-making is outlined in three steps: first, identification and selection of concerns and evaluative criteria, involving stakeholder groups to reveal values and criteria; second, identification and measurement of impacts of different decision options, operationalizing criteria and involving experts to judge option performance; and third, aggregation and weighting of expected impacts by randomly selected citizens, allowing citizens to evaluate options based on their values and preferences. So far, these authors have tried to talk about various techniques for including the public in local governance decision-making processes, their corresponding impacts in different areas and fields and some ways to improve them. But in the late 1990s, Plein et al. (1998) introduced a new way of looking at public participation through 'Organic Planning'. Organic planning reflects a new attitude towards the interaction between citizens and the policymaking process. Ideally, it seeks to involve citizens earlier in the issue and policy development process. Notably, it often is motivated outside and can be independent of established governmental or institutional arrangements. Finally, it seeks to embody an ongoing dialogue among citizens and between the public and officials.

In the 2000s, there have been significant efforts by several people to explore the field of public participation in various areas to enhance the conventional ways in order to improve its impact. One another type of community engagement was explored in 2006 to identify indicators that helped in monitoring progress towards sustainable development and environmental management goals. As per Fraser et al. (2005), the identification and collection of sustainability indicators not only provide valuable databases for making management decisions, but the process of engaging people to select indicators also provides an opportunity for community empowerment that conventional development approaches have failed to provide. This paper explores the methods for selecting "sustainability indicators" used to measure progress towards social and environmental goals, with a focus on the integration of top-down and bottom-up approaches. To explore the balance between these approaches and assess the impact of community participation on environmental management projects, the paper critically examines three case studies where external agencies facilitated stakeholder engagement in selecting sustainability indicators. Despite differing socio-economic and environmental contexts in these case studies, all

demonstrate a shift towards integrating participatory bottom-up approaches with conventional top-down systems that had previously failed to achieve sustainable environmental management. This was a significant development in the area of participatory engagement.

However, building on the same, in 2007, Innes and Booher tried to reframe public participation to demonstrate how alternative methods can better meet public participation goals and how they make moot most of the dilemmas of more conventional practice. Their paper highlights that traditional participation methods in the United States have limitations and pathologies, and it proposes a new model of participation based on collaboration. This collaborative participation model involves not only citizens but also organized interests, profit-making and non-profit organizations, planners, and public administrators. In this model, all stakeholders interact, influence each other, and act independently in a multi-dimensional framework. This approach aims to overcome the current dilemmas associated with traditional participation practices and scholarship by fostering innovation and capacity-building in addressing complex societal problems which was another significant development in the areas of participatory engagement. In the mid-19s, many authors discussed different schools of thought behind the purpose of public participation, one of them being focused on 'administrative' participation and the other being focused on 'substantive' participation. As per Selznick (1949), the former transformed the citizen ". . . into a reliable instrument for the achievement of administrative goals . . . ," while the latter provided citizens with ". . . an actual role in the determination of policy . . ." (p. 220). Building on the same, Glass (1979) questions the role and purpose of public participation and talks about the importance of establishing a relationship between the objectives of public participation and the techniques to achieve them. Their paper touches upon a very essential point that while the practice of public participation has become very common, their results have been largely unsatisfactory due to the improper design of participatory programs and the gap between the participatory techniques and the objectives. Their paper highlights several techniques which can be used to achieve certain objectives under different administrative or substantive purposes of participation.

On a similar point, Head (2008) touches on the importance of citizen participation and

involvement in democratic theory, with a clear distinction between a top-down or managerial orientation and a bottom-up inclusive approach. The paper elaborates that while managerial approaches have often dominated, there has been a shift towards greater citizen engagement and public consultation in recent years, aiming to bridge the gap between government leaders and the citizenry. Their paper discusses the perceived benefits and impacts of participatory democratic theory and citizen involvement in decision-making processes by highlighting the positive outcomes from participatory involvement on both individuals and society as a whole and significantly emphasizing the 'Third Way' ideology (introduced by Reddel and Woolcock 2004) that talks about the value of citizen empowerment and the revitalization of civil society.

As the public participation techniques, methods, tools or programs became more prominent, researchers also started to understand its place in social or environmental impact assessment. As per Freudenburg & Olsen (2019), programs and policies to encourage 'public participation' have a natural and important place in Social Impact Assessment (SIA). Their paper emphasises the importance of local residents' involvement as experts on their own communities in the context of social impact assessments (SIAs) by also discussing the potential problems of this process. Because SIAs seek to project the effects of specific acts on communities, the perspectives of local residents are critical for accurate assessments. At the same time, the paper also mentions that there can be significant issues associated with involving the public in social or environmental impact assessments like opinion vs. social consequences, resource allocation, dominance, higher income, participants being overrepresented etc. Hence, it raises an important point that while public engagement programmes have benefits, they must be implemented wisely and cautiously. Their benefits and drawbacks should be acknowledged, and they should not be used to perpetuate existing power disparities. So far, it can be concluded that public participation, its tools, methods, and techniques have evolved greatly over the last two decades, but there is still much room for development and improvement. In 2021, Kanyamuna and Zulu discussed the achievements and developments in the area of public participation and its significant positive impacts, such as increased efficiency and sustainability of development interventions, empowerment of people, increase in achieving development goals etc. However, the paper also highlights the limitations of participation in development practices. It discusses that participatory

processes often do not effectively address power relations and conflicts of interest among different groups of stakeholders and often might result in unequal decision-making. In light of these limitations, the paper provides several recommendations that include acknowledging the participatory method's limitation, setting up boundaries regarding what can and can't be achieved, encouraging a two-way learning process between communities and development agencies, and recognizing that local knowledge is valuable. Lastly, the paper highlights that participation has its benefits but should be used judiciously, with a clear understanding of its limitations and the need for careful management.

3.0 Context, Cases and Methods of Engagement

3.1 Context

Indian cities are usually described as 'congested', 'chaotic', and 'messy' because around 60–80% of the areas are 'unplanned' or 'informally constructed' (Shahdadpuri, 2021). The capital city, New Delhi, has a population of 32.9 million, of which more than half live in informal settlements and unplanned colonies (World Population Review, 2023). It is marked by different settlement types, defined by diverse degrees of formality, legality, and tenure. In the paper, I will be discussing the case of three types of settlement in Delhi, namely, Unauthorised colony, JJ Resettlement Colony and Urban Village.

Unauthorised Colonies

Unauthorised colonies are residential settlements built in contravention of zoning regulations, developed either in violation of Delhi's master plans or on 'illegally' subdivided agricultural land. Living in an unauthorised colony has two significant consequences for residents: they do not own the land on which they live—and they cannot legally transfer it—and service provisioning is generally insufficient (Centre for Policy Research, 2014).

JJ Resettlement Colonies

Residents of Delhi's JJCs (Jhuggi Jhopdi clusters) have experienced at least three waves of eviction and resettlement since the 1960s. At the time of their eviction from a JJC, those found eligible are allotted plots in settlements categorised as JJ Resettlement Colonies. The policy that

established these resettlement colonies was designed to impose a measure of planning, providing basic services and shaping settlements in contrast to the JJCs they replaced. Despite this intention, these colonies remain clearly outside the ambit of 'planned colonies', and most have received basic services only years after resettlement (Centre for Policy Research, 2015).

Urban Villages

From time to time, rural villages are notified under Section 507 of the Delhi Municipal Corporation Act 1957, shifting the settlements into the urban ambit and designating them as 'urban villages', also sometimes referred to as 'urbanised villages' in policy documents. Upon declaration as 'urban', the 'Lal Dora[1]' area in a village ceases to exist and the provisions of the Master Plan, Zonal Plan, or relevant Area Development Plan and Building Bye-laws become applicable (Centre for Policy Research, 2015).

Amongst many such informal settlements in Delhi, this paper will talk about four informal settlements—Seemapuri and Raghubir Nagar which is an unauthorised colony, Bakkarwala which is a JJ resettlement colony, and Mubarakpur Dabas area which contains two typologies, an unauthorised colony and an urban village—and how they were involved in different participatory engagement using participatory tools, specifically designed while keeping in mind the urban issues and challenges faced by them.

3.2 Introduction to the Field

3.2.1 Seemapuri

Located in the northeastern part of Delhi, Seemapuri is an unauthorised colony with a majority of the population working in the waste picking and segregation sector. The waste pickers in Seemapuri have a system of working. This involves a set pattern of work which includes collecting, storing, and segregating waste in the colony in order to sell it to earn money. However, since it's an unauthorised colony, there is very limited space for waste pickers to

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[1] In 1908-09, parts of the rural areas were officially designated for "abadi" (population), or non-agricultural activity, with a red thread; these boundaries were reflected in red ink on village maps. Unlike the agricultural land outside of these boundaries, parcels of land included within the '*Lal Dora*' line are not assessed for land revenue. Ownership of '*Lal Dora*' land is only by way of possession and is not recorded in land revenue records. The authority for certifying the boundary of the village '*abadi*' is the Revenue Department of GNCTD. (Centre for Policy Research, 2015)

practice their livelihood. Moreover, the houses are so small (about 10–21 sqm) that cannot accommodate a family of 5–6 members, let alone provide space for work. There is a need for better housing and water facilities in the area. Engagement game kit- Kaun Hai Master? Kya Hai Plan? was used to include the voices of waste pickers in the planning process by engaging them in understanding the master plan and the impacts of city planning on them in order to share their objections for the new master plan 2041.

3.2.2 Raghubir Nagar

Raghubir Nagar is another unauthorised colony located in the north-western part of Delhi. The common occupations of people here are utensil vendors, glass crockery vendors, mobile cover vendors, food stall vendors, vegetable vendors, momos vendors, etc. Lack of proper housing, better transport connectivity, and utilities like improper and unequal distribution of water supply and water infrastructure are some of the major issues faced by the community. The community was involved in the participatory engagement to understand the master plan using Kaun Hai Master? Kya Hai Plan? Toolkit.

3.2.3 Bakkarwala

Bakkarwala is a resettlement colony located on the western periphery of Delhi. People from all across Delhi, living in different slums, were resettled here in the 2000s by the Delhi government. People here are mostly informal workers, such as construction workers, factory labourers, street vendors, security guards, daily wage labourers, domestic workers, etc. They don't have land ownership and live in precarity. One of the most common issues faced by them relates to water, sanitation, and hygiene. The paper will talk about the impacts of the CBVAT participatory tool in Bakkarwala and how it helped the community build its capacities and become the agents of change.

3.2.4 Mubarakpur Dabas

The Mubarakpur Dabas area consists of unauthorised colonies and an urban village alongside[2].

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[2] Mubarakpur Dabas is a suburban town in the western periphery of Delhi. The area contains 2 housing and informal settlement typologies- Mubarakpur village which is an urban village and Meer Vihar & Roop Vihar which are unauthorised colonies.

Both unauthorised colonies, Meer Vihar and Roop Vihar, and an urban village, i.e., Mubarakpur village has different populations in terms of socio-economic background and history, but the common issue that they are facing is related to water, sanitation, hygiene, a lack of proper transport connectivity, and the lack of proper public green spaces. Just like Bakkarwala, the paper will capture the outcomes of using CBVAT participatory tool in Mubarakpur and how it helped communities to create a positive impact.

3.3 Methods of Engagement

This section of the paper will present the reasons behind developing a particular unconventional participatory toolkit and its components, the process followed to develop it and how it was used with the various underserved communities, mostly informal settlements across Delhi. It will also talk about the process of approaching and engaging communities based on the author's involvement in both the design and facilitation of two unique unconventional participatory tools.

3.3.1 Unconventional Participatory Tool I: Engagement Game Kit- Kaun Hai Master? Kya Hai Plan?

The master plan of Delhi is created every 20 years. The development of the next master plan for Delhi (2021–2041) was started in 2021. To make planning in Delhi more representative and inclusive by engaging citizens in the 2041 Master Plan process, a people's campaign called 'Mai Bhi Dilli Campaign' was created to start a discussion on what kind of city the people of Delhi want and how to make it more just and equitable (Mai Bhi Dilli Campaign, 2021). To help engage the city with its own development vision, it was important to make sure that people were able to understand the master plan. For this purpose, the Social Design Collaborative developed an urban interactive participatory toolkit called 'Kaun Hai Master? Kya Hai Plan?' (Who is Master? What is the plan?) to deconstruct the technocratic language of the Master Plan and spread awareness about it (Shahdadpuri, 2021).

This interactive participatory toolkit was designed to spread awareness about the Master Plan of Delhi and improve public participation in the process of creating a new master plan for 2041 in 2021. This toolkit contained different themes of the Master Plan of Delhi, including housing,

transport, utilities, livelihoods, social infrastructure, and public space as six different activities and map-based games printed on a large canvas to accommodate 15-20 members of the communities. The toolkit also contained resource flash cards to share typical information about different elements of each theme like typical house sizes in government housing in Delhi, typical housing typologies, standard price of water tanker, amount per consumption of water, typical commute fares using several public transports etc. After incorporating suggestions from different civic society organisations who were part of the campaign and a few pilots with different communities, the tool was finalised and shared with different organisations and NGOs to conduct a participatory session with their communities to enable them to analyse what the draft master plan is saying about issues relevant to the community member's lives and help them to articulate their objections accordingly. After around 250 such workshops across Delhi, people from different informal settlements filed over 25,000 suggestions and objections to the Delhi Development Authority (DDA) physically (Sinha et al., 2022). This toolkit was used in Seemapuri and Raghubir Nagar.

3.3.2 Unconventional Participatory Tool II: Community-Based Vulnerability Assessment Tool (CBVAT)

Under the Australia-India Water Security Initiative (AIWASI, 2022), which is being implemented in Bakkarwala and Mubarakpur Dabas, the aim is to transform the two disadvantaged communities into more water-sensitive communities by following the principles of water-sensitive cities and water-sensitive urban design. To come up with an implementation plan that works for both the communities individually, it was important to understand water-related challenges faced by the communities and their aspirations for the development of their community. To give communities a platform where they can discuss their issues related to water and sanitation, Mahila Housing Trust (MHT, 2013) designed a unique participatory tool called Community-Based Vulnerability Assessment Tool (CBVAT). The tool was designed to engage community members to recognize, acknowledge, and understand their vulnerabilities with respect to access to basic resources and socio-economic barriers. The toolkit is a set of seven activities that takes communities through a longer and deeper process of identifying their issues related to water and sanitation, understanding their vulnerabilities, analysing the root

cause and the impacts of these issues on their lives over the course of 2 days and eventually building their understanding and empowering them to co-create an action plan for the resolutions by the end of the 3rd day.

The tool consisted of multiple activities like the Moser Framework, which helped in assessing the impact of several water-related issues like water scarcity, poor water quality, water flooding, etc. on a community's everyday activities, including both domestic and productive. Impact Matrix, another activity, helped in understanding the impact of water-related issues on different livelihoods, followed by root cause analysis in the end, which helped in identifying the major root causes and impacts of the main water-related issues in that community. Following two days of activities that enable the community to identify and delve deep into the issues that they face, they spend the third day co-creating solutions for the same. the communities spent the third day co-creating an action plan called 'Community-Based Resilience Action Plan (CBRAP)' under which they created a plan of solution for each issue related to water and sanitation like poor water quality, irregular water supply, an increase in vector-borne diseases, etc., by mentioning a feasible solution that can be implemented at the local level through their collective efforts, a timeline to take action, and preparing a list of necessary government stakeholders who will play a major role in the implementation of the solutions. The communities then started approaching these government officials to start a dialogue on the issues they faced and discuss feasible solutions. In the course of a few months, because of the communities' collaborative actions, many issues were resolved at the local level.

3.4 Participatory Action Research (PAR)

According to Cornish et al. (2023), PAR involves the participation and leadership of those people experiencing issues who take action to produce emancipatory social change through conducting systematic research to generate new knowledge. This methodology works well in my case of working with communities that are facing issues, and are getting empowered so that they can work towards solutions for the development of their areas.

The core of this idea introduces six building blocks for PAR project design: building relationships; establishing working practices; establishing a common understanding of the issue;

observing, gathering, and generating materials; collaborative analysis; and planning and taking action (Cornish et al., 2023). A similar process was followed while working with the communities, understanding their issues and designing appropriate participatory tools based on their issues that also helped in imparting knowledge about the impacts and causes of the issues and the next steps that can be taken to work towards the resolutions. The process of community engagement begins with constantly engaging with the communities through meetings, building trust and relationships with them, and then identifying community leaders who expressed interest in working in collaboration to identify issues and take necessary actions for them. MHT follows this community engagement process and the group of community leaders formed are called 'Community Action Groups' (CAGs).

In the case of the engagement game kit, the process involves collaborating with organisations that already have a good relationship with communities and have identified community leaders and representatives who are constantly working towards the development of the area. Then these community leaders were involved in participatory planning sessions using these unconventional participatory tools, which helped them delve deeper into their vulnerabilities and challenges related to infrastructure and access to basic resources. This knowledge helped them come up with an action plan that also involved approaching government officials to discuss potential resolutions and demand their rights.

4.0 Findings and Discussions

4.1 Participatory Tools and Methods for Participatory Engagement

4.1.1 Role of Participatory Tools

It has been established by many authors that participatory engagement in decision-making processes have turned out to be quite impactful (Yet et al., 2022; Aboelata et al., 2011; Bada, 2011). Participatory planning processes, known for uncovering issues often overlooked in traditional planning, prioritise user input, support, and end-product success through a bottom-up approach. This strengthens social cohesion, fostering greater social capital and local ownership (Cilliers and Timmermans, 2014). In simpler terms, it enhances strategy development and communication among stakeholders, leading to effective planning and improved outcomes, while

also enhancing public awareness. Participatory tools, in essence, thus become tools, methods and techniques used to involve communities, any user group, or other stakeholders in better decision-making. For an effective participatory engagement, fundamental knowledge of the user group, their context, and other social, political, and economic aspects that may have an impact is necessary. Such information can be useful in the development and creation of participatory tools for conducting a successful engagement session. It is also vital to remember that the impact and outcome of participatory engagements significantly depend on the interactive tool and method employed in the process. However, it has been identified that, in addition to enabling effective decision-making and collaboration, some participatory tools can also serve as a knowledge-building module, assisting communities in enhancing their understanding and awareness of various topics that conventional tools seem to not achieve.

The author calls such tools as unconventional participatory tools. Such tools can enable communities to learn how to solve some of their problems on a smaller scale on their own, which is empowering for them. Essentially, these tools aid in the long-term sustained development and resilience of communities, which continues even after participatory engagements end, because they are better informed and aware of their concerns, causes, impacts, and solutions. In simpler terms, the engagements conducted using unconventional types of participatory tools can enable participatory action if designed and facilitated effectively.

The next section will talk about the impacts and outcomes of using two different unconventional participatory tools- Engagement Game kit: Kaun Hai Master? Kya Hai Plan? (used in Seemapuri and Raghubir Nagar) and Community-Based Vulnerability Assessment Toolkit (CBVAT) (used in Bakkarwala and Mubarakpur Dabas).

Case Study 1: Engagement Game kit- Kaun hai master? Kya hai plan? Toolkit: *Results from Engagement in Seemapuri and Raghubir Nagar*
The toolkit helped in immersing communities into a deeper conversation about each entity[3] of our city's infrastructure in the form of different activities and how their present situation in the

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[3] Housing, Transport, Livelihood, Utilities, Social Infrastructure and Public Space

city is impacting their lives. The tool also helped in capturing the stories and narratives from people's lives as they participated in various activities and discussed different layers of social, political, and economic factors that are responsible for shaping their experience in the city of Delhi.

Taking the example of one activity, some insightful narratives came out of the engagement with the community in Seemapuri from their participation in the activity on **'Housing'**. Each house area in Seemapuri ranged approx. 20 sq m, with 5–6 family members living under the same roof. The activity included a short discussion through which community members calculated the space used by a single member of their family in their household. Many people's results were 3-4 sq m, which is far less than the minimum habitable area required by a person in a dwelling according to the Unified Building Bye-laws, which is 15 sq m. Using different information and resource cards in the toolkit on housing typologies, sizes, and their respective costs, it was also realised that housing is not affordable in the area. This led to people being dependent on rental housing. Rental housing provides the opportunity to rent a house at an affordable rate. Also, since it is difficult to buy another house, most of the families were involved in incrementally expanding their house vertically when their family needs change. For a lot of people, this also provided an opportunity to rent an extra space for extra income. All these details and conversations were the outcomes of the activity, which helped them realise the need for adequate and affordable housing and ultimately helped them articulate their objections for the master plan draft of 2041. In another activity conducted on **'Transport'**, a participant of Seemapuri, Mumtaz mentioned that she earns Rs 200 a day and spends Rs 80 just for commuting to work to collect waste. She said, "Participating in Kaun hai Master? Kya Hai Plan? session helped me understand that I am spending a huge amount on transport every day, according to my daily wage income, and the activities made me realise the importance of better public transport connectivity, which can help me save a lot of money". She later submitted an application demanding better transport connectivity for the next master plan.

In Raghubir Nagar, while conducting the activity on **'Utilities'**, specifically focusing on access to clean water, one participant shared that they have access to regular water supply and they don't

even get water bill because the water is free upto 20 KL under free water scheme in Delhi (Livemint, 2021). To this, another participant mentioned that they face a lot of issues when it comes to water supply as they dont have a water meter and their household is also not connected to the water pipeline supply. Since these informal settlements house people who are mostly economically weaker, a lot of people are unable to get water meters and also remain uncovered by pipeline supply. Even within the same settlement, there is an unequal distribution of water as some households are not covered by piped water supply, due to which they have to pay for the water while those who have piped connections get water for free until a certain consumption amount. In the same area, after the session on Housing ended, a participant from the group, Ravita said, "I have four people in my family, and we live in a 20-square-metre house. The activity helped me understand that according to the bye-laws, 15 sq m is considered a minimum habitable area for a single person, whereas we have only 4 sq m of space per person, which is very low. There is a need for better affordable housing."

It is because of the nature of the participatory toolkit that it was able to capture these nuanced details within the same neighborhood through the stories of the people which helped in enhanced understanding of the issues and its impacts.


Fig. 1: Kaun Hai Master? Kya Hai Plan? session in Seemapuri

Fig. 2: Information cards on typical house (Source: Author with Social Design Collaborative)

areas in Delhi (Source: Anchal Sayal with Social Design Collaborative)

Case Study 2: Community-Based Vulnerability Assessment Toolkit and Community-Based Resilience Action Plan (CBVAT and CBRAP): *Results from Engagement in Bakkarwala and Mubarakpur Dabas*

After spending 2 days in understanding and analysing different issues related to water and sanitation and creating an action plan by the end of the 3rd day, the communities started to take action on them based on the timelines prepared by them. In Bakkarwala, the three major issues that came out through the activity were poor water quality, lack of solid waste management and vector-borne diseases. The community action groups (CAGs which is a group of identified women leaders elected by the community) started taking action by visiting government officials in the Delhi Jal Board (DJB) to discuss the issues relating to the poor quality of supplied water. The government officials addressed their issues and assured them to take action on it. Due to the irregular arrival of garbage collection vehicles by the Municipal Corporation of Delhi (MCD), there was no space for people to dispose of their household waste as a result they started dumping waste in open grounds, roads etc.
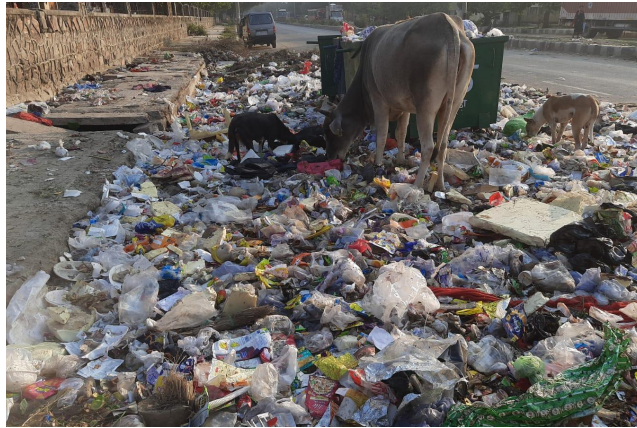
Fig. 3: Macchi Chowk, Bakkarwala- Before action (Source: Mahila Housing Trust)

Fig. 4: Macchi Chowk, Bakkarwala- After community's (Source: Mahila Housing Trust)

After understanding its ill effects on people's health and hygiene, our CAGs decided to visit the MCD office to submit an application requesting the regular arrival of the garbage collection vehicle. After a few follow-ups, the garbage collection vehicle started to visit Bakkarwala regularly leading to a significant reduction in garbage dumps in open spaces. An example of one of the major changes that was possible because of the community's collective action was the cleaning of Macchi Chowk. Macchi Chowk is the entrance of the Bakkarwala JJ resettlement colony which used to be a major garbage hotspot ground. After CAG's constant efforts as part of CBRAP activity, they were able to get it cleaned. As a part of CBVAT activity, communities were also trained to file applications in government offices by submitting written applications at their offices and by digital apps as well. A resident of Bakkarwala, Saroj mentioned, "Through

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this training, I also learned how we can use apps and technology to get our issues resolved. The MCD 311 app was very useful for us; we filed complaints regarding the cleaning of drains, roads, street lights, garbage dumps, etc. There were many spots in our area that were waterlogged and filled with garbage. Through the app, we filed complaints for these issues, and within 2-3 days, someone from MCD came and fixed these problems. I felt empowered and realised that I could contribute to the change."

In Mubarakpur Dabas, the major issues that came out were poor water quality, water flooding, and a lack of solid waste management. Just like in Bakkarwala, due to the absence of a garbage collection unit or facility, people were dumping their waste in open lands and in the two adjacent lakes, thereby polluting the water bodies as well. Here also, the CAGs decided to visit the MCD office to file a complaint regarding the issue, as a result of which the regular arrival of the garbage collection vehicle started. Out of these three major issues that came out of the various activities under CBVAT, water flooding has the most severe impact on the community. Due to the lack of a proper drainage system in the area, the water used to accumulate on the roads and lanes, leading to severe commuting issues faced by the community. With regular and constant discussions with the MLA by the community members for months, they were finally able to receive a letter of sanction of funds from the government for the construction of the new drainage system which will begin soon. A resident of Mubarakpur Dabas, Vikram shared, "We were dealing with a number of serious water-related issues here. After joining MHT and participating in CBVAT, women in our area, including myself, felt empowered, and we realised that now we are able to create our own identity. I recently filled out an application for the installation of a water meter, and it was installed at my house within a week. We have worked on many issues in the area with the CAG, including getting the drains cleaned, solid waste management, and so on."

The tool not only helped communities understand the root cause of the issue and its impact, thereby informing better design strategies, but also provided communities with the necessary information about different government departments, officials, and their procedures that they could follow or visit in order to file a complaint or discuss their issue. In total, 10 action plans

were created in both areas, and our Community Action Groups (CAGs) and communities took action on them, which included filing complaints in DJB for new water pipelines and regular water supply, using the MCD 311 app to get drains cleaned, filing complaints in MCD for antimalarial spray in open spaces, etc. The toolkit not only helped in building communities' knowledge and awareness about the issue but also empowered them to become leaders of their communities and advocate for change for the betterment of the communities.

Fig. 5: CBVAT training in Bakkarwala (Source: Mahila Housing Trust)

Fig. 6: CBVAT training in Mubarakpur Dabas (Source: Mahila Housing Trust)

4.2 Conventional and Unconventional Participatory Tools- A Comparative Analysis
It is already established that both tools have greatly helped in bringing community members

together to discuss their needs, objectives, values, etc., which can better inform the implementation or decision-making process. Conventional tools have helped in capturing the opinion of the public about a certain development plan or the impact of an issue that they are facing. In the context of urban development, these tools definitely helped in doing a detailed qualitative analysis of the situation based on responses from the stakeholders. However, they sometimes miss out on capturing the quantitative aspect of it in a more nuanced manner. This has been achieved by unconventional participatory tools like carefully designed and tailor-made interactive toolkits and visual and map-based activities followed by constructive discussions on the findings. These tools have helped in simplifying the technical urban issues in great depth, which has enabled more active participation of people from these underserved communities and informal settlements. Designing tools like maps, information cards, visuals, and pictures in a manner that is accessible to our audience (communities) greatly helped in holding their interest and keeping them involved. Above everything, these tools helped in capturing many narratives, stories, and conversations in a nuanced manner that resulted in bringing out many deeper causes and impacts associated with a particular theme.

Unlike conventional participatory tools, which were limited to only capturing what was asked, unconventional tools provided a platform for a 'discussion' that informed the facilitators about many other aspects that the tool was not designed to ask directly. Lastly, these tools enabled participatory action. After delving deeper into the process of realising, understanding, and analysing the issues they are facing and their significant causes and impacts, communities took collective action. In the case of the engagement game kit (Kaun hai master? Kya hai plan?), people from different informal settlements submitted their recommendations and objections to the Delhi Development Authority (DDA) for the Master Plan of Delhi 2041. The Community-Based Resilience Action Plan (CBRAP), co-created by the communities themselves as a part of the Community-Based Vulnerability Assessment, allowed them to list down their major issues and create an action plan together to work towards their resolutions. They spent months working on these issues at the local level by filing applications with government departments and working with local government officers, which eventually helped in the development of the area.

	Conventional Participatory Tools	Unconventional Participatory Tools
Strength	- Enable public participation in implementation or decision-making process - Makes people's voices heard - Bridge the gap between public and policy - Inform about on-ground realities - Helps in coming up with a solution that works for every stakeholder - Can act as a knowledge building and educational tool	- Helps in capturing the feedback and responses from the participants with crucial details - Capture the nuanced information shared in the sessions through quotes and story narratives - Empower people and communities through knowledge sharing and awareness building - Enable participatory action for the development - Tools are mostly interactive which helps in better engagement
Weakness	- Don't capture the nuanced discussion and details - Unidirectional - Does not effectively work on complicated themes - Unable to provide solutions - Does not support in enabling action - Not very engaging	- Engagement process can be very long and lengthy - Stakeholders might not be able to give time for the entire sessions - Some people take more time in getting used to the tool and its interface - If not carefully designed according to the audience, the tool might not work as intended.
Opportunity	- Can be redesigned to address a particular issue in greater deal - Can be made interactive to hold people's interest	Tools can be designed to be simpler along with being unique and interactive

	● Converting conversational engagement into activity can make the session more fun and enjoyable (Hill et al., 2020)	● These tools can also be designed for short length of engagements
Threat	● People can lose interest with time ● The disagreement between the stakeholders can led to a dispute	● The disagreement between the stakeholders can lead to a dispute ● Too complicated activities can result in less participation from people ● Longer sessions lead to people losing interest in the engagement process

Table 1: Conventional and Unconventional Participatory Tools- SWOT Analysis

5.0 Conclusions

This research shows that community engagement and public participation processes can significantly contribute to better decision-making processes. Conventional tools like surveys, interviews, and focus group discussions have greatly helped bring community voices to the table that can feed into the discussions. However, unconventional participatory tools, like tailor-made interactive activities or games, not only resulted in a better decision-making process but also contributed to transforming participatory engagement into participatory action. These tools have also empowered communities by informing and building their capacities through the engagement process. Through various case studies and stories from the field, it was evident that people, particularly residents of urban informal areas, who are typically not included in the city planning processes, have the knowledge and ability to share their vision for their settlement and the city and have the eagerness to understand how they can contribute to the city planning. Meticulously designed interactive, participatory tools can better facilitate this process where people can be involved in a deeper understanding and analysis of the urban issues impacting them while also enabling them to work towards the positive development of their areas collectively.

The comparative and SWOT analysis in the last section shows that while conventional tools

capture public opinions and qualitative details, they often miss quantitative aspects. On the other hand, unconventional tools simplify the technicalities behind the urban challenges that exist in the settlement and help capture the participants' responses and opinions with nuanced details. This information helps communities better understand the causes and impacts of these issues on their lives. Unlike conventional tools, unconventional tools encourage broader discussions and inform facilitators about unanticipated aspects. This also leads to participatory action, where communities collectively address issues, such as submitting recommendations to authorities and creating action plans for resolving significant problems, ultimately contributing to local development. However, the interface of unconventional tools like visual maps and games can sometimes take time for people to understand or get used to. This sometimes results in creating gaps in understanding the issues. That is why it is essential to carefully design the interactive participatory toolkits while keeping the user group in mind. Although the mode of conventional tools is usually simple and basic, for example, a conversation-based interview, which is not as engaging as unconventional tools, it helps facilitate participatory sessions in a shorter time, unlike unconventional tools, which usually take 3-4 hours to 1-2 days. Longer sessions make it difficult for communities to participate till the end, as it affects their daily activities and livelihoods. Both tools have their strengths and weaknesses, and it is essential to consider these points while creating a participatory toolkit.

Finally, the research provided an opportunity to explore the socio-spatial challenges present in our built environment, their specific effects on disadvantaged communities more profoundly, and how, as an urban practitioner, I could contribute to their enhancement. Engaging with participatory tools, involving the design and facilitation of participatory sessions, aided in comprehending the most effective methods to convey the technical aspects of urban development to the communities most impacted. This experience facilitated my contribution to narrowing the divide between communities and planning policies.

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