An aerial photograph of a river flowing through a city. A concrete bridge with a metal railing spans across the river. In the background, there are several multi-story buildings, some under construction with cranes. The foreground shows lush green vegetation and a small waterfall or dam structure in the river.

The use of creative and arts-based methods to overcome the barriers of public participation

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Preface

This report seals my final project for the Double Degree Master's programme Urban Planning, Society and Sustainability. This study was inspired by the work of my first supervisor, Gwenda van der Vaart, who helped me develop the aim of this research and gave me guidance on how to combine my interests of urban planning in the Netherlands and in Indonesia. I would like to thank Gwenda for giving me the opportunity and the freedom to conduct this research, given that it had a rather unconventional approach, and for thinking along during the decision-making processes of this study.

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I would also like to thank Ferry for joining 'my team' as a second supervisor. Throughout this study, Ferry has provided me with great ideas and feedback that helped me to look at my work more critically, and his insights helped me significantly with improving the structure of this report. Additionally, his enthusiasm for my topic and ideas gave me a lot of motivation throughout the process, and thanks to his efforts I did not have to worry about finding a new supervisor once Gwenda could not supervise me anymore.

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The empirical part of this study could not have been conducted without the people who were willing to participate in the interviews. Therefore, my appreciation goes to both the experts and the residents in Yogyakarta. Everyone was very welcoming and their, sometimes very personal, answers provided me with valuable information that are the basis for this report.

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Throughout my time in Indonesia, I have met a lot of amazing people who helped me feel home and gave me some of the best experiences of my life. I want to thank all of them for their friendship and their help during both my studies and my thesis, but there are two people who I would like to thank individually. First, I would like to thank Jochem for being the best person I can imagine to be 'stuck' with for a year. Together, we started our Indonesian adventure, together we discovered the country

and its culture, and together we came up with the idea to do our empirical research in Indonesia. Furthermore, I would like to thank Roy, who was one of the first persons I met in Indonesia, and who gave me some of the most fun, awkward, weird, and amazing memories.

Lastly, I would like to thank my parents for always supporting me, encouraging me to create something that I would be proud of, and for giving me a push in the right direction when things were not going as smoothly as I planned.

Mitchell Dani van Dijk

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Executive summary

Introduction

Throughout history, floods have been recognized as one of the most destructive natural hazards worldwide. Traditionally, these issues were solved by using structural (engineered) measures that were implemented in a top-down fashion. However, due to limitations of this approach, there has been an increased focus on using non-structural measures lately (Wehn et al., 2015).

Governments and organisations from all over the world are trying to promote the inclusion of citizens in the decision-making process of projects related to flood management and environmental issues in order to enhance community understanding of flood risks and to empower individuals to take proactive measures to improve their flood resilience (Dietz & Stern, 2008; Brink & Wamsler, 2019).

However, despite much research being done on the best approach for public participation, in practice, there are still some important challenges and barriers with regards to the use of public participation that prevent the practice from being effective in accomplishing its goal of improving the quality and the legitimacy of spatial interventions.

One innovative approach that is currently being studied for its ability to overcome certain barriers of conventional public participation processes is the use of creative and arts-based methods (CABM). This study aims to fill these gaps in the literature, by establishing whether it would be possible and effective to use CABM in public participation processes related to urban flood management, and whether there is a potential for applying these methods in Indonesia. The main research question for this study will be:

To what extent can creative and arts-based methods help with overcoming barriers of conventional public participation processes?

Literature framework

Projects related to spatial planning often require

changes to be made to a certain area or place. According to Van der Vaart et al. (2018b), this practice is called place change. Place change is often described as a negative conception, as it could lead to a disruption of local communities, due to people perceiving this place change as a threat to their own identity and the identity of the space they inhabit, which, thus, collides with their place attachment (Stuiver et al., 2012).

However, Van der Vaart et al. (2018b) state that the place change itself does not necessarily cause the negative conception, but that it is the way people perceive and interpret this change which actually affects their place attachment and feeling about the place change. Therefore, by giving local stakeholders the possibility to engage in the decision-making process through public participation, they could get a better understanding of the issue at hand and give their own input based on their needs and opinions.

For the past decades, public participation, which has been defined as “an umbrella term incorporating various forms of interaction with people, from informing and listening through dialogue, debate, and analysis to implementing jointly agreed solutions” by Hügel & Davies (2020, p.2), has been used by governmental institutions and planners to improve the quality and effectiveness of decision-making processes, increase the legitimacy of those processes, and to improve social justice in planning processes, by giving stakeholders the opportunity to voice their opinions and needs (Dietz & Stern, 2008; Fung, 2015).

However, even though public participation has been deemed as an ‘inherently good process’ by Hügel & Davies (2020), there are also challenges and certain ‘systemic barriers’ with regards to conventional public participation processes that prevent public participation processes from being used more, and more effective (Hügel & Davies, 2020; Zuhair & Kurian, 2016). These barriers can be categorised as institutional barriers (withhold institutions from using public participation more extensive and effective) and as individual barriers (withhold stakeholders from

participating). In order for public participation to have a positive influence on people's perceived place change, these barriers have to be overcome and public participation has to be used as a process where a wide variety of stakeholders with different backgrounds and power positions can be fully engaged in the decision-making process (Stuiver et al., 2012)

One toolset that has been proposed in the literature to make public participation processes more effective and which could help with overcoming the barriers of conventional public participation processes, is the use of CABM (Blomkamp, 2018; Cruz et al., 2022; Grenni et al., 2020; Stuiver et al., 2012; Van der Vaart et al., 2018a; 2018b; Wolff et al., 2021). The most important aspects of CABM are that the use of these methods can help with creating a better overview and understanding of the local narratives and help with creating a more inclusive and accessible environment during participation processes where stakeholders feel safe to voice their needs and opinions.

Research method

In order to get a better understanding of place attachment and place change, public participation, barriers in public participation, and the use of CABM, multiple literature researches were conducted. Google Scholar and the snowballing technique were used to find relevant literature in order to create the literature framework.

Additionally, in order to find out what the current state of public participation with regards to flood risk management in the Code river basin area is and what the local barriers for public participation are, and to determine whether, and to what extent, CABM could potentially be used in Yogyakarta to overcome the barriers of public participation found in the area, a case study has been performed in a flood-prone area along the Code river. This case study included in-situ (on site) interviews with 17 citizens who live in the flood risk areas and 5 expert interviews with people who were working in the local government, citizen empowerment groups, or in the cultural sector.

Results

In general, the answers from interviewed residents from all three villages were similar in the context of place attachment. Most of them stated that they liked living in the areas next to the Code river, and that they have a strong attachment to the place and their respective communities. All residents interviewed mentioned that they were tight with their respective communities, with some even stating that their communities felt like family.

It seems that there is a participatory system in place in the research area, where the community representative is the bridge between the village government and the communities. Whenever the village government wants to implement a certain plan, they will inform the community representatives, who will then discuss these plans with the local communities. Next, public participation can also be initiated by the community themselves. Usually, the community representatives (RT & RW) have regular meetings with the community, and during these discussions community members can voice their opinions and needs.

When asked about their experiences with public participation, most residents interviewed were positive about their influence in governmental projects with regards to flood management and spatial planning in general. One resident noticed that there was a clear improvement with regards to public participation in the past years. However, many residents mentioned that even though they like being able to voice their opinions and needs to the government indirectly via their community representative, they would rather have some form of direct participation.

The experts stated that using public participation during projects had a lot of benefits for both the local governments and the citizens in the area. First of all, it gave governmental institutions the possibility to educate citizens with regards to the problems at hand and measures they could take themselves, thus stimulating community resilience. Additionally, using public participation made it easier for the government to gather local knowledge from citizens who have lived in the area for years.

With regards to institutional barriers, experts

and residents gave examples for both the 'lack of diversity and inclusion' and the 'lack of influence' barriers. Individual barriers that were identified in the research area are 'time, costs, and effort', 'lack of trust', 'lack of information/understanding', 'complicated process', and 'feeling of helplessness'.

Even though CABM have not been officially documented in Yogyakarta, there have been various uses of these methods in public participation processes related to the Code river area. Based on the explanation of the use of CABM and their own experiences, the experts thought using these methods could have a significant number of positive aspects and benefits that would make the public participation process more effective, accessible, and attractive to a more diverse range of stakeholders.

However, some of the experts also voiced some concerns with regards to the use of CABM, such as the abstract nature of art which could lead to a false sense of understanding and the time and energy using CABM would consume. Nevertheless, most of the experts mentioned that they think CABM will be used more frequently in future projects in Yogyakarta and other places in Indonesia.

Discussion and conclusion

In conclusion, the findings from this study show that the inclusion of CABM could help with lifting public participation processes to a new level of engagement, where the barriers of conventional public participation processes could be significantly reduced. By harnessing this potential of creative and arts-based methods, organisers of public participation processes can give stakeholders a platform where they can freely share their ideas in a creative way that improves the inclusiveness and accessibility, fosters discussions and involvement, generates creative solutions through the imagining of future scenarios, and strengthens communities as a whole, which is in line with the principles of good governance.

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1. Introduction

1.1 Background information

Throughout history, floods have been recognized as one of the most destructive natural hazards worldwide. Historical records reveal staggering death tolls during the most devastating floods recorded, ranging from 40.000 to 2 million deaths per flood event (Wilson, 2023), emphasizing how catastrophic these events can be. However, despite extensive mitigation efforts, flood events have been projected to become only more extreme in the future (Aerts, 2018).

Research (e.g. IPCC, 2014; Wehn et al., 2015; Yamada et al., 2010) indicates a concerning trend: over the past two decades, both the frequency and severity of flooding events have surged globally, contributing to a third of financial losses and over half of all fatalities from natural disasters (White, 2000, as cited by Wehn et al., 2015). Not only does flooding cause a significant negative impact on the (sustainable) urban development of areas that are prone to flooding, it also greatly affects the communities that live in these areas (IPCC, 2014; Wehn et al., 2015). Out of the 387 natural hazards that have been documented worldwide in 2022, 176 were flood related, resulting in approximately 8000 deaths, affecting the lives of approximately 57.1 million people, and causing an economic loss of approximately 44.9 billion American Dollars (CRED, 2023).

Traditionally, flood related issues were often solved by using structural (engineered) measures that were implemented in a top-down fashion. However, due to limitations of this approach, there has been an increased focus on using non-structural measures lately (Wehn et al., 2015). These measures include better land-use planning, flood forecasting, early warning systems, and spreading awareness (Bradford et al., 2012, as cited by Wehn et al., 2015). Additionally, through international and regional laws and policies, like the Aarhus Convention (1999) and the European Flood Directive 2007/60/EC, governments and organisations from all over the world are trying to promote the inclusion of citizens in the decision-making process of projects related to flood management and

environmental issues. This participatory approach aims to foster awareness and generate a deeper understanding of local conditions, which is crucial for effective flood resilience measures (Wehn et al., 2015).

Moreover, participatory initiatives have the potential to enhance community understanding of flood risks and empower individuals to take proactive measures to improve their flood resilience (Dietz & Stern, 2008; Brink & Wamsler, 2019). By fostering collaboration between researchers, governments, and local communities, these efforts can lead to more contextually informed and sustainable flood management solutions.

1.2 Problem context

In the past decades, the use of these participatory approaches, or public participation as it will be referred to in this study, has been used in different, progressive, manners. When public participation was first introduced in the 1960s, it was mainly used to raise awareness amongst stakeholders. In the 1970s, governments started to incorporate local perspectives in their projects and in the 1980s, the importance of local knowledge got recognized. From the 1990s onward, public participation became the norm for sustainable development and since then researchers have been trying to reach a consensus with regards to the best practice (Reed, 2008, as cited in Wehn et al., 2015).

However, despite much research being done on the best approach for public participation, in practice, there are still some important challenges and barriers with regards to the use of public participation that prevent the practice from being effective in accomplishing its goal of improving the quality and the legitimacy of spatial interventions (e.g. Brink & Wamsler, 2017; Fung, 2015; Wehn et al., 2015; Hügel & Davies, 2020), with some researchers (Wehn et al., 2015, p. 226, based on Edelenbos & Klijn, 2006; Behagel & Turnhout, 2011) stating that:

“Although participatory approaches are commonly presented as antidotes for a lack of legitimacy of traditional policymaking approaches and as a means for leading to more informed and effective policies, several studies have also shown that many participatory approaches fail to do so.”

One innovative approach that is currently being studied for its ability to overcome certain barriers of conventional public participation processes is the use of creative and arts-based methods (CABM). These methods involve the application of creative tools, such as performance, film, visual art, and community art, due to their ability to actively involve stakeholders in the participation process in a creative way (Stuiver et al., 2012, p. 299).

Throughout the past couple of years, some researchers and practitioners (e.g. Stuiver et al., 2012; Van der Vaart et al., 2018a; 2018b; Blomkamp, 2018; and Grenni et al., 2020) have organised several (pilot) projects during which they explored the benefits and challenges of CABM. However, none of these studies have specifically linked these findings with the barriers found in conventional public participation processes. Additionally, most existing CABM studies are concentrated in European contexts, leaving a gap in understanding their applicability in diverse settings.

1.3 Research objective and research questions

This study aims to fill these gaps in the literature, by establishing whether it would be possible and effective to use CABM in public participation processes related to urban flood management, and whether there is a potential for applying these methods in Indonesia. Specifically, it will do so by conducting: A) a pragmatic literature research that will be used to identify barriers for public participation and describe how CABM can help with overcoming these barriers, and B) interviews with local experts and residents living in the Code river area, to ask about their experiences with flooding, public participation, and CABM.

Based on the literature framework and the interviews with experts and residents of the Code river,

hypotheses will be formulated regarding the usage and effectiveness of CABM in public participation processes in the Code river area in Yogyakarta. Additionally, based on the literature framework on barriers in public participation and the benefits of CABM, hypotheses will be made on whether and how CABM can help with overcoming the barriers in public participation.

The following research questions were formulated to provide further insights into the research subject and these will help with reaching the research objective. The main research question for this study will be:

To what extent can creative and arts-based methods help with overcoming barriers of conventional public participation processes?

Furthermore, the following sub-questions were formulated to give more structure to the research:

1. *What are barriers that prevent public participation processes from being successful?*
2. *What are the benefits of creative and arts-based methods in comparison to conventional public participation methods?*
3. *What is the current state of public participation with regards to flood risk management in the Code river basin area and what are the local barriers?*
4. *To what extent can creative and arts-based methods help with overcoming barriers of public participation processes in the field of flood risk management in the Code river basin area in Yogyakarta, Indonesia?*

2. Literature framework

In this chapter, I will use existing literature (see chapter 3 for the literature collection method) to create a framework that can be used to explain the function of public participation in projects related to spatial planning, describe the challenges and barriers of conventional public participation processes, and identify the benefits of CABM compared to conventional public participation methods and how these benefits could potentially help with overcoming the barriers identified in conventional public participation processes. This framework can, thus, help with answering the first two sub-questions of this study: “What are barriers that prevent public participation processes from being successful?” and “What are the benefits of creative and arts-based methods in comparison to conventional public participation methods?”

The chapter will start by explaining the concepts of place and space, place attachment, and place change, by using literature from Stuiver et al. (2012), Van der Vaart et al. (2018a; 2018b), and Wester-Herber (2004), as these concepts are important to understand the effects of spatial planning projects on the feelings of local residents. Next, the importance and use of public participation and the challenges and barriers associated with conventional public participation processes will be explained by using literature found during a pragmatic literature research, among which the most important are Brink & Wamsler (2017), Dietz & Stern (2008), Fung (2015), Hugel & Davies (2020), Lane (2005), Nita et al. (2018), Wehn et al. (2015), and Zuhair & Kurian (2016).

Based on literature from Blomkamp (2018), Cruz et al. (2022), Grenni et al. (2020), Stuiver et al. (2012), Van der Vaart et al. (2018a; 2018b), and Wolff et al. (2021), the use and benefits of CABM will be explained, including an overview of how these methods can help with overcoming the barriers of conventional public participation processes. Finally, the literature framework will be concluded with a conceptual framework.

2.1 Place and space

In the past decades, there has been a significant amount of research with regards to place and place attachment. In 1984, the philosopher De Certeau came up with a theory in which he described the difference between place and space. According to De Certeau (1984, as cited by Stuiver et al., 2012), place represents the abstract dimension of space, whereas space represents the lived environment that is created by those that use it on a daily basis. Stuiver et al. (2012) explain the relation between these two terms by comparing it to grammar and spoken language, where grammar defines the abstract rules of a language, and spoken language the way in which language is used by people in order to give meaning to the world.

According to Wester-Herber (2004), people do not simply observe their environment: they develop emotions and narratives around it, which are influenced by the local norms and values. Brown & Perkins (1992, p.284, as cited by Van der Vaart et al., 2018b) describe this process as place attachment, and define it as “*positively experienced bonds, sometimes occurring without awareness, that are developed over time from the behavioural, affective, and cognitive ties between individuals and/or groups and their sociophysical environment*”.

Usually, during projects related to spatial planning, there are changes made to a certain area, or place. Van der Vaart et al. (2018b) define this practice as place change, and note that the literature often describes place change as a negative conception, because it could lead to the disruption of local communities and negative feelings (such as grief, loss, and anxiety) that are associated with such disruptions. Stuiver et al. (2012) suggest that these negative feelings are caused due to people perceiving the changes as a threat to both their own identity and the identity of the space they inhabit, damaging their connectedness to that place. Furthermore, Wester-Herber (2004, as cited by Van der Vaart et al., 2018b) suggest that place change does not only include physical changes to an environ-

ment, but also non-materialistic ones, such as economic or population changes.

Even though place change is often described as a negative conception in the literature, Van der Vaart et al. (2018b) argue that it is not the actual place change, but the way the place change is perceived and interpreted by the local stakeholders that influences people's perception; in some cases, place change could even enhance people's place attachment (Devine-Wright, 2011, as cited by Van der Vaart et al., 2018b). By engaging local stakeholders in the decision-making process, the perceived place change could be altered due to the ability to give people a better understanding of the necessity of the place change and the ability to voice their needs and opinions. This process of engaging local stakeholders in the decision-making process can also be called 'public participation.'

2.2 Public participation

Since the 1960s, the role of citizens in the decision-making process has been changing towards a more participatory process and through various legislative decisions over the decades, citizen engagement has become the norm in many fields of governance (Reed, 2008, as cited by Wehn et al., 2015). Whereas the old top-down governance system excluded stakeholders from the decision-making process, the participative governance system was aimed at giving citizens and other stakeholders the opportunity to voice their opinions and needs (Ostrom, 2009; Robins et al., 2011, as cited by Nita et al., 2018).

Participative governance has since been studied increasingly, and a significant amount of literature can be found on the topic. Throughout this study, I will use the term 'public participation', even though other terms have been used to capture the practice of participatory governance, such as 'citizen engagement' (e.g. Brink & Wamsler, 2017; Wehn et al., 2015), 'citizen participation' (e.g. Fung, 2015), and 'public engagement' (e.g. Hügel & Davies, 2020). However, these terms all refer to the same practice and have been used interchangeably in the literature according to Dietz & Stern (2008).

Similarly to the variety of terms, many different definitions for public participation can be found throughout the literature. Most definitions have comparable elements though, as can be seen from the definitions given by Hügel & Davies (2020) and Dietz & Stern (2008): In their study on public participation, engagement, and climate change adaptation, Hügel & Davies (2020, p.2) define public participation as "*an umbrella term incorporating various forms of interaction with people, from informing and listening through dialogue, debate, and analysis to implementing jointly agreed solutions*". Dietz & Stern (2008) state that public participation is the process to engage the public in environmental assessment, planning, decision-making, management, monitoring, and evaluation by governmental agencies. For this study, I will use the definition of Hügel & Davies (2020), as it describes the different activities and levels of public participation in a more comprehensive manner.

According to Dietz & Stern (2008), the main goal of public participation is to improve the quality and effectiveness of decision-making processes, increase the legitimacy of those processes, and to improve the adaptive capacity of communities and other stakeholders that are included, resulting in resilient communities. Fung (2015), who developed a framework to understand the governance potentials for public participation, states that public participation cannot only contribute to the effectiveness and legitimacy of governance, but also to the social justice factor of governance. He continues with the statement that when public participation is designed to satisfy the local conditions, it can contribute to the accomplishment of the values of good governance (Fung, 2015).

Between all the main goals of public participation, Fung (2015) argues that enhancing the legitimacy is the most important driver for institutions to integrate public participation into their process. According to Fung, top-down decision-making processes can in some way be seen as 'democratic failures'. However, by including citizens in the decision-making process directly, solutions can be found that are more in line with the needs and opinions of the general public and other affected parties, resulting in less resistance and more effective outcomes (Fung, 2015;

Dietz & Stern, 2008).

In order to perform public participation processes in a way that leads to successful outcomes with regards to legitimacy, effectiveness, and social justice, there are some criteria that need to be taken into account. Dietz & Stern (2008) name 4 key points that are vital for public participation processes in order to be successful: first of all, a stakeholder analysis should be performed, where the norms and values of all the groups affected by the matter at hand should be identified. Secondly, based on the analysis, possible actions should be determined. Thirdly, a systematic assessment should be made of all these approaches and actions. Lastly, it is important that during the process, state-of-the-art knowledge and methods are used. Next to these 4 key points, Fung (2015, p.1) mentions that “*in order to engage citizens, practitioners should be clear about the intention for convening citizens and design engagement in a way that envisions a clear path leading from engagement to the satisfaction of that intention*”.

Fields that can benefit significantly from incorporating public participation in the decision-making processes, are the fields that deal with environmental issues and climate change adaptation (Dietz & Stern, 2008; Wehn et al., 2015; Hügel & Davies, 2020). In general, problems in these fields are complex (and wicked) problems, that often not only require physical or policy measures, but also a behavioural change among a diverse range of actors (Dietz & Stern, 2008). By engaging the public in the decision-making processes of these problems, it is possible to share information about the dangers and effects of certain issues more easily and increase the awareness about possible measures the public can take themselves (such as adaptive measures). Additionally, measures that are taken by the government can be more context-specific through the acquisition of knowledge about the local context and the incorporation of the needs and opinions from all the affected parties (Dietz & Stern, 2008).

Challenges for public participation

Even though public participation has many benefits, there are also those who criticize the use. Some,

believe that the costs and effort it takes to organize public participation processes outweigh the benefits (e.g. Rossi, 1997; Sanders, 1997; Sunstein, 2001, 2006; Collins and Evans, 2002; Campbell and Currie, 2006, as cited by Dietz & Stern, 2008). Additionally, despite most studies stating that public participation is inherently a good process, Hügel & Davies (2020) argue that in practice it is often used to give stakeholders a false sense of involvement which could lead to dissatisfaction and conflicts among stakeholders. This is due to the fact that during those processes, vulnerable stakeholders are not given the power to “*affect the outcomes of the process*” (Arnstein, 1969, p. 216), and that it is only the stakeholders that already are in power (the ‘haves’) who dominate the participation process (rather than the ‘have not’s’) (Sandercock, 1994, as cited by Lane, 2005).

Currently, most public participation processes are only focused on organising public hearings or informative meetings, where stakeholders are informed of the decisions that have been made, but are not actively included in the decision-making process itself (Fung, 2015). Fung states that in many cases where a ‘participation champion’ wants to include public participation in the decision-making process, they have to convince the people around them, proponents and opponents alike, of the benefits of including all stakeholders in the decision-making process. This is due to the fact that there are no solid agreements or policies of what public participation should entail and even though there is an increasing number of treaties and policies that state that public participation should be a mandatory part of the decision-making process (e.g. the Aarhus Convention in 1999 and the European Flood Directive 2007/60/EC, as stated by Wehn et al., 2015), often these do not specifically name the extent of public participation.

Wehn et al. (2015) argue that many participatory approaches fail to lead to effective policies and an increase of legitimacy, due to the fact that these processes “*do not take into account links between (i) the goals of involvement, (ii) those who actually participate and (iii) the ways in which they are invited to participate*” (p. 226), which they based on findings from Tritter & McCallum (2006). In order to improve the effectiveness of public participation, Fung (2006,

as cited by both When et al., 2015; and Fung, 2015) came up with the ‘democracy cube’, which describes three dimensions of public decision mechanisms:

1. *The scope of participation*: determine who will participate in the decision-making process. This includes all stakeholders, including governmental representatives.
2. *The mode of communication and decision*: determine the role of the participants and in what way they will interact with each other and the process.
3. *The extent of authority*: determine whether the goal of the participation process is individual benefit, by for example spreading awareness, or to generate more authority for the stakeholders.

Barriers for public participation

However, not only the way public participation is practiced contributes to the fact that in many cases public participation is still unsuccessful in achieving its goals. Hgel & Davies (2020) state that there are certain ‘systemic barriers’ that prevent public participation from being used more, and more effective. Through a literature research, I found that there are both institutional barriers (see Table 2.1), which are barriers that withhold institutions from using public participation in a more extensive and effective way, and individual barriers (see Table 2.2), which are barriers that withhold stakeholders from participating in public participation processes.

Institutional barriers

According to Hgel & Davies (2020), there are certain independent variables of public participation processes that can be ‘manipulated by democratic architects’ in order to reach a desired goal. These variables are the selection of participants and the amount of influence stakeholders have, including how they can communicate their opinions. Multiple studies show that decisions related to these independent variables can cause barriers that prevent the participatory processes from being successful in achieving their goal (Zuhair & Kurian, 2016; Fulu, 2007; Brink & Wamsler, 2017; Fung, 2015). Additionally, there are various studies that argue that the costs and effort that are required for successful public participation are often lacking during these processes, and cause a barrier for public participation to be used in an effective manner (Nita et al., 2018; Hgel & Davies, 2020; Zuhair & Kurian, 2016). In the coming section, these barriers will be discussed.

Time, costs, and effort

In their research regarding barriers that can prevent public participation in developing countries with regards to Environmental Impact Assessments, Zuhair & Kurian (2016) found that there is a political influence that is associated with public participation processes: governmental agencies pressurise projects to be done within a certain time period, and due to the fact that public participation processes usually take a significant amount of time compared to top-

Table 2.1. Overview of institutional barriers found in the literature.

Barrier	Description	Sources
Time, costs, and effort	<i>Public participation requires more resources compared to top-down approaches and requires a certain skillset for the coordinators.</i>	<i>Glucker et al., 2013; Nita et al., 2018; Zuhair & Kurian, 2016.</i>
Lack of diversity and inclusion	<i>Conventional public participation processes generally include stakeholders that have a high level of education and there is less investment in including vulnerable groups. Additionally, men are more likely to participate compared to women.</i>	<i>Brink & Wamsler, 2017; Fulu, 2007; Fung, 2015; Hgel & Davies, 2020; Zuhair & Kurian, 2016.</i>
Lack of influence	<i>During conventional public participation processes, it is usually people with power that have the biggest voice and other, less powerful stakeholders act as spectators.</i>	<i>Fung, 2015; Hgel & Davies, 2020.</i>

down projects, as a significant amount of time has to be allocated for debates, these time limits can reduce the effectiveness and scale of the public participation process (Glucker et al., 2013, as cited by Nita et al., 2018; Zuhair & Kurian, 2016).

Another resource barrier is related to constraints with regards to the financial and human capacity of certain countries or regions (Nita et al., 2018; Zuhair & Kurian, 2016). Public participation processes are more costly than top-down approaches and require people with a certain skillset to lead these processes. In many developing countries, at least one of these two capacities is lacking, resulting in a limited participation process or sometimes no participation process at all, even though there is a willingness among the government and other stakeholders to include such a process (Nita et al., 2018; Zuhair & Kurian, 2016).

Lack of diversity and inclusion

Next to the lack of support with regards to resource allocation, multiple studies found that there is often a lack of diversity and inclusion in public participation processes (Brink & Wamsler, 2017; Fung, 2015; Hügel & Davies, 2020; Zuhair & Kurian, 2016). Hügel & Davies (2020), for example, found that in a significant amount of projects, there is an uneven distribution of financial resources when looking at the inclusion of vulnerable and low-income communities.

Brink & Wamsler (2017) noticed that this often results in the exclusion of certain (vulnerable) groups in society, and that those who do participate often tend to have a good understanding of the problem at hand, possess good language skills, and have enjoyed a high level of education. This finding is similar to that of Fung (2015, p.3), who states that those who participate “*are frequently more socioeconomically advantaged than the broader population*”.

The literature has also identified differences between the participatory levels of women compared to men in the public participation process (Fulu, 2007, as cited by Zuhair & Kurian, 2016). In countries and/or regions with a conservative ideology, it is not unusual that women are supposed to care for the children, while the men go to work and represent their family.

Therefore, a significant amount of the participants in public participation processes in developing countries is male. This means that in these situations, the wishes of women could be misrepresented or left out altogether.

Lack of influence

Even though there has been an increasing number of public participation efforts in governance projects all over the world in the last few years, Fung (2015) argues that most of these efforts have been aimed at improving the legitimacy and efficiency of the projects, whereas an important aspect of public participation, namely social justice, has been overlooked. According to Fung (2015), during a majority of the public participation processes, certain (powerful) stakeholders, who already have an economic, social, or political advantage, use the process to influence new policies and projects to enhance their (already advantaged) positions in society.

When including public participation, governance projects often only organise information meetings and public hearings. Fung (2015) found that during these meetings, it is only a few stakeholders that voice their opinion while the rest of the stakeholders are mostly spectators. These practices, therefore, often result in a lack of influence among different groups of stakeholders, and the outcome seldom represents the opinion and needs of the majority of the stakeholders. Due to this reason, Fung (2015, p.3) argues that these kind of meetings and public participation practices are “*low on the scale of influence and empowerment*”.

Researchers, such as Hügel & Davies (2020, p.13), argue that in order to reach the full potential of public participation, politicians and scientists should become more serious about the involvement of all stakeholders, and emphasize on co-production rather than information sharing, thus considering stakeholders as local experts “*of their own lived experiences*” rather than spectators. However, Fung (2015) states that these kind of practices are often not considered by institutions, as they see participation as necessarily trivial due to their lack of experience and expertise with successful public participation practices.

Individual barriers

Next to institutional barriers that decrease the effectiveness of conventional public participation processes, there are also individual barriers that withhold citizens to participate in public participation processes. Some of these barriers are caused by people not being *able* to participate (time constraints, no trust, etc.) and sometimes because people are not *capable* to participate (not enough understanding of the problem, difficult to understand the process, etc.). These barriers, or ‘demoters’ (Palerm, 2000, as cited by Zuhair & Kurian, 2016), can not only negatively influence the willingness of citizens to participate, but they can also affect the capacity of citizens to participate. In this section, these individual barriers will be described.

Time, costs, and effort

Similar to the institutional barriers, due to public participation processes requiring more time than top-down processes, due to time it takes to have discussions, finding participants, explaining the situation, ‘time, costs, and effort’ could also be a barrier for citizens to participate in the decision-making process (Glucker et al., 2013, as cited by Nita et al., 2018; Zuhair & Kurian, 2016). Some citizens might not join because they have jobs or other obligations that withhold them from spending time on public participation (Yulianti, 2021; Van der Vaart et al., 2018a). Choosing a suitable time for public participation

meetings, as suggested by Zuhair & Kurian (2016), is, therefore, essential.

Lack of trust

Another barrier for public participation found by Zuhair & Kurian (2016) is the ‘loss of community spirit’, or the willingness of a community to participate in the process due to a lack of trust in their community. This loss of community spirit can be caused by political tensions within a country or community, due to the fact that supporters from different parties can decide not to work together on certain initiatives as a result of their differing political ideologies. This could in turn lead to a feeling of distrust against those parties among citizens (Zuhair & Kurian, 2016).

Additionally, Davies (2001a, 2001b, 2005, as cited by Hügel & Davies, 2020) found that a lack of trust in governmental institutions and politics in general can decrease people’s willingness to participate during participation processes, as they are afraid to be manipulated. Hügel & Davies (2020), therefore, argue that successful public participation practices require experienced facilitators and transparent debriefing, co-producing, and evaluation meetings, as this will enhance the trustworthiness of the process.

Lack of information/understanding

Multiple studies found that in many cases, citizens are not participating due to a lack of awareness (Wehn et

Table 2.2. Overview of individual barriers found in the literature.

Barrier	Description	Sources
Time, costs, and effort	Public participation processes usually are time-consuming, which might demotivate citizens to participate due to them having other obligations.	Glucker et al., 2013; Nita et al., 2018; Van der Vaart et al., 2018a; Yulianti, 2021; Zuhair & Kurian, 2016.
Lack of trust	Citizens do not trust their community or the government, and do not want to participate in fear of being manipulated.	Davies, 2001a, 2001b, 2005; Hügel & Davies, 2020; Zuhair & Kurian, 2016.
Lack of information/understanding	Due to a lack of understanding or awareness of the issues at hand, people are less likely to participate.	Wehn et al., 2015; Zuhair & Kurian, 2016.
Complicated process	Due to the use of difficult language being used in complicated matters, people, especially those with a lower level of education, might be less prone to participate in conventional public participation processes.	Brink & Wamsler, 2017; Yulianti, 2021.
Feeling of helplessness	Traumatic experiences from the past could negatively influence people’s self-efficacy, reducing the likeliness of participating. Additionally, fear of the government or fear that the government cannot help could also reduce participation.	Grothmann & Patt, 2005; Hügel & Davies, 2020; Yulianti, 2021.

al., 2015; Zuhair & Kurian, 2016). Wehn et al. (2015), for example, found that people who have lower flood risk awareness or understanding, were less interested in participating in the decision-making processes.

This barrier was also found by Zuhair & Kurian (2016) in relation to environmental awareness, especially in developing countries. Due to the fact that people did not fully understand climate change and its effects on their environment, they often did not see the point in participating in environmental projects. This lack of awareness even led to a significant amount of stakeholders who were not even aware that they could participate in the decision-making process at all (Zuhair & Kurian, 2016).

Complicated process

Another barrier that keeps citizens from participating in decision-making processes is the fact that they find the issue at hand and the participation process itself too complicated. Yulianti (2021), for example, noted that people with a low-level of education had difficulties with understanding the problem, and the process of getting their vision aligned with other stakeholders took longer compared to citizens with a higher level of education.

Furthermore, Brink & Wamsler (2017) noticed that the language used in policy discussions and participation processes, is often too complicated for most citizens to understand completely. They argue that many citizens do not possess the administrative and language skills necessary to participate in the decision-making process, and that certain (vulnerable) groups in society were not able to voice their needs and opinions. When interviewing citizens, they found one person saying (p.91):

“I have stayed up many nights, to read about the planning process, how to write an appeal, what language to use reading other people’s appeals and you almost have to be a lawyer to learn how to articulate everything right”.

Feeling of helplessness

People that have experienced climate hazards, such

as floods, earthquakes, or volcanic eruptions, or other extreme events, might develop symptoms of post-traumatic stress disorder or depression (Moon, 2016, as cited by Hügel & Davies, 2020). Eventually, these experiences could even lead to violence among citizens. According to Hügel & Davies (2020, p.14), this could negatively influence the self-efficacy of those people, depending on their “*personal cognition, affect and motivation*”. This means that people will deem themselves less capable of for example adapting to certain issues or participating in the decision-making process (Grothmann & Path, 2005). Additionally, other feelings, such as fear for the government or fear that the government cannot help them, could also make people feel helpless and make them decide to not participate (Yulianti, 2021).

2.3 Creative and arts-based methods for public participation

In order to overcome the barriers of public participation and use it as a process where a wide array of stakeholders with different backgrounds and power positions can be fully engaged in the decision-making process, academics and practitioners alike have been experimenting with new methods for public participation (Stuiver et al., 2012). Pontee & Morris (2011, as cited by Hügel & Davies, 2020, p. 10), for example, stated that “*more creative and imaginative ways of engaging will be required to do this*”.

Stuiver et al. (2012) argues that in urban planning, it is important to understand the narratives of different stakeholders and the relationships between a local environment and its people’s identity, and that the use of CABM can provide the necessary tools to reach this understanding. In their study of linking spatial planning and place branding through cultural narratives in place, Grenni et al. (2020) found that there is an upcoming academic interest (e.g. Ameen, 2017; Merkus et al., 2014; Throgmorton, 1996) in putting more emphasis on narratives in urban planning practices, due to the variety of narratives, from a diverse range of stakeholders, that are related to these practices.

According to Stuiver et al. (2012), the identity

of a place is shaped through the reality that people observe on a daily base (lived space), combined with narratives that have been created through the way people relate to their environment (imagined space). Grenni et al. (2020), therefore, argue that because planning, and thus place change, is inherently a practice that reshapes this identity of place and restructures the local narratives, it is necessary to include those narratives in planning projects and create new collective narratives for the future through public participation. Grenni et al. (2020, p. 1356, based on Metzger, 2011; Pearson et al., 2018; Sandercock, 2005) continue by suggesting that CABM could prove to be a toolset capable of dealing with this multitude of narratives in planning, by “*reaching dimensions of knowledge and awareness that other methods are unable to*”.

In order to define these creative and arts-based methods, Grenni et al. (2020) used definitions from both Dieleman (2017) and Leavy (2009). In their words, CABM can be seen as methods that merge art, creativity, and imagination by drawing inspiration from the concepts and processes that play a role in the field of arts, in order to find creative new insights that would not have found with more traditional methods. Wolff et al. (2021), who did a study on the importance of creative practices in designing more-than-human cities, add to this that whereas conventional public participation methods can be seen as ‘cognitive and individual-based’ where answers are based on rationality, CABM are more focused on collective thinking and the use of imagination to come up with helpful questions to guide the process.

Based on existing literature (e.g. Askins & Pain, 2011; Coemans & Hannes, 2017; Cohenmiller, 2018; Dun & Mellor, 2017), Van der Vaart et al. (2018a) argue that using CABM in public participation processes could also offer participants a ‘safe space’ where they can openly express themselves and discuss sensitive or difficult topics, such as their lived experiences and their feeling towards their community. Metzger (2011, as cited by Grenni et al., 2020) elaborates on this by suggesting that art and artists can encourage people to use a ‘different language’ and a different way of thinking in order to analyse and discuss certain issues, compared to their usual ones. The

use of this different language and way of thinking can help with creating an environment where people can freely discuss and explore new narratives and place identities, by taking away the political constraints that can form a barrier for people to express their opinions (Metzger, 2011, as cited by Grenni et al., 2020). Grenni et al. (2020) argue that researchers and planners can take a similar role in public participation processes when they use CABM, where “*the main function of the artworks is not aesthetic but, rather, to provide a medium through which the participants can exchange their ideas and thoughts*” (Van der Vaart et al., 2018a, p. 11, based on Hamilton & Taylor, 2017).

Forms of creative and arts-based methods

According to Blomkamp (2018), who did research into the use of creative methods in the co-design process of public policy, the design aspect of CABM offers powerful tools that can foster creative insights and solutions among participants. Especially the visual and expressive characteristics of CABM can offer a more accessible way for participants with different backgrounds to generate a collective understanding of certain issues and narratives and to express their needs and opinions (Blomkamp, 2018; Wolff et al., 2021; Cruz et al., 2022).

Rather than conventional participation methods, which are mostly focused on information sharing through public hearings and informative meetings (Fung, 2015), this would, for example, mean using theatre to visualise the opinions of stakeholders (Stuiver et al., 2012), creating visual maps and collages with stakeholders to understand the current situation and visualise potential futures (Grenni et al., 2020), and/or organising walking interviews and an exhibition to understand the lived experiences of residents (Van der Vaart et al., 2018a).

Wolff et al. (2021) came up with a way to classify different categories of CABM. First of all, they mention the ‘*visual art*’, in which they include still images, moving images, and 3D artefacts. Other researchers (Van der Vaart et al., 2018a; Blomkamp, 2018; Cruz et al., 2022) have mentioned these categories of visual art as well, and named others in the form of

diagrams and sketching (Cruz et al., 2022), and social media, interactive mapping, and model building (Blomkamp, 2018).

The second category is ‘*performing art*’, which includes dance, music, theatre, and puppetry (Wolff et al., 2021). Other researchers (Van der Vaart et al., 2018a; Blomkamp, 2018) mention these categories as well, and have also named roleplaying as a form of performing art in CABM (Blomkamp, 2018).

Thirdly, Wolff et al. (2021) name ‘*live art*’ as a classification of CABM, in which they give writing on the body as an example. Other examples of live art are the use of card sets and gamification of the process (Blomkamp, 2018; Wolff et al., 2021) and the use of sculptures (Wolff et al., 2021).

Lastly, Wolff et al. (2021) made the class ‘*literary art*’, in which they named poetry, creative writing, and reader’s theatre as examples. Other researchers have also mentioned these examples (Van der Vaart et al., 2018a; Blomkamp, 2018; Cruz et al., 2022), and others, such as creating storyboards (Cruz et al., 2022) and writing diaries (Blomkamp, 2018).

Even though CABM can be as diverse as the researcher or practitioner can imagine, these examples give a clear overview of the various types of CABM that can be used during public participation processes. Additionally, the different classifications can also be used in a ‘*multi-method approach*’, where art of different classes are combined during one pro-

cess (Coemans & Hannes, 2017, as cited by Wolff et al., 2021).

Benefits of creative and arts-based methods

Not only can CABM help with creating a better understanding of the local narratives and create an environment where people can openly discuss these narratives, they can also help with making public participation processes more inclusive and accessible for a wider array of stakeholders, generate emotions and involvement during discussions, help with imagining future scenarios and coming up with creative solutions, and strengthen the community aspect of the local stakeholders (see Table 2.3). In this section, these benefits will be discussed and connected to certain barriers in the conventional public participation process.

Improve inclusiveness

Whereas many conventional public participation methods struggle with the lack of diversity of participants, Stuiver et al. (2012, based on Raven, 1993; Kwon, 2004) argues that CABM can be used to give vulnerable and ‘forgotten’ communities the chance to voice their needs and opinions. By using forms of community-based art, groups that otherwise do not have the (political) power or social status to convey their thoughts can now participate in public partici-

Table 2.3. Overview of benefits of creative and arts-based methods.

No.	Benefit	Related barrier(s)	Source
1.	<i>Improve inclusiveness</i>	Lack of diversity; lack of trust	<i>Blomkamp, 2018; Cruz et al., 2022; Grenni et al., 2020; Stuiver et al., 2012.</i>
2.	<i>Improve accessibility</i>	Lack of information/understanding; complicated process	<i>Van der Vaart et al., 2018b; Wolff et al., 2021.</i>
3.	<i>Foster dialogue & discussions</i>	Lack of influence; lack of information/understanding; lack of trust	<i>Blomkamp, 2018; Cruz et al., 2022; Grenni et al., 2020; Stuiver et al., 2012; Van der Vaart et al., 2018a; 2018b; Wolff et al., 2021.</i>
4.	<i>Stimulate emotions & involvement</i>	Lack of trust; feeling of helplessness	<i>Grenni et al., 2020; Van der Vaart et al., 2018a; 2018b.</i>
5.	<i>Imagine future scenarios</i>	Time, costs, and effort (inst.); lack of information/understanding; feeling of helplessness	<i>Blomkamp, 2018; Grenni et al., 2020; Van der Vaart et al., 2018a; 2018b.</i>
6.	<i>Generate creative solutions</i>	Lack of information/understanding	<i>Blomkamp, 2018; Grenni et al., 2020.</i>
7.	<i>Strengthen community aspect</i>	Lack of information/understanding; feeling of helplessness	<i>Blomkamp, 2018; Stuiver et al., 2012; Van der Vaart et al., 2018a.</i>

pation processes, due to the ability of CABM to act as a bridge between stakeholders of different cultures, social classes, and generations (Stuiver et al., 2012).

Different studies (e.g. Blomkamp, 2018; Grenni et al., 2020; Cruz et al., 2022) have shown that these claims are not only theoretical, but can actually be used in practice, bringing together people with a different background who can add different forms of knowledge to the decision-making process.

By bridging the gap between people with a different background and bringing them together for the creation of a collective narrative, the *lack of diversity and inclusion* barrier found at conventional public participation processes can be (partially) overcome. Additionally, by reaching out to vulnerable groups and including them in the process, the *lack of trust* barrier from conventional public participation processes can also be (partially) overcome.

Improve accessibility

Using CABM can also help with making the public participation process more accessible for a diverse range of stakeholders (children, elderly, low education, etc.), as it can creatively help with generating more awareness and enhance people's knowledge about their environment and the issues at hand (Van der Vaart et al., 2018b). Van der Vaart et al. (2018b) found during their case study in a Dutch village called Pingjum, that the use of CABM helped the local communities in better understanding of the history and value of their environment and stimulated them to think about possible place-changes in that environment.

Wolff et al. (2021) argue that CABM can stimulate participants of public participation processes to explore and visualise basic assumptions, and come up with creative alternatives. They continue by stating that these practices can make public participation more accessible and engaging for everyone.

Based on these findings, the improved accessibility for a wider range of stakeholders can help with (partially) overcoming the *lack of information/understanding* barrier found in conventional public participation processes, due to more people being able to share and receive information in a more un-

derstandable manner. This can in turn also help with overcoming the *complicated process* barrier of public participation.

Foster dialogue and discussions

Stuiver et al. (2012) argue that other people and organisations can have a great impact in the way people interpret place change, which is due the fact that people can influence the way other people think. Stuiver et al. (2012, p. 308) continue by stating that CABM can help with making "*intrinsic knowledge of citizens explicit*". Blomkamp (2018) add to this that by making this knowledge explicit, a certain level of trust will be formed between participants, and this can lead to constructive dialogues and discussions.

Wolff et al. (2021) argue that these dialogues are not necessarily lead to a 'comfortable consensus'. However, by using CABM, participants will more likely listen to each other's needs and opinions rather than just repeating their own. This form of collective brainstorming can eventually lead to a feeling of belonging and shared understanding between participants (Wolff et al., 2021; Cruz et al., 2022).

In practice, Van der Vaart et al. (2018a; 2018b) found that the use of CABM during the public participation process stimulated people to reflect on the meaning they and other participants gave to their environment, and this opened up a collective discussion about the community and their attachments to it. This was also found by Grenni et al. (2020, p. 1366), who found that "participants were able to express the values they attach to their town and to re-negotiate them in a collaborative exercise"

These findings suggest that the use of CABM can foster dialogue and discussions among all participants, where they listen to each other's needs and opinions. Eventually, this could help with overcoming the *lack of influence* barrier of public participation, due to the fact that participants are stimulated to listen to each other, even those who do not have a high social status or political power. Additionally, the collective brainstorming sessions could help with overcoming the *lack of information/understanding* barrier through collective learning. Lastly, as stated by Blomkamp (2018), the level of trust among participants can also be positively influenced through

CABM, thus helping with overcoming the *lack of trust* barrier.

Stimulate emotions and involvement

According to Van de Vaart et al. (2018b), place change can cause people that live in that area and shaped their identity on that place to feel deep emotions, such as love, fear, and sometimes even hatred, due to their place attachment. This is due to the fact that people associate their memories, beliefs, and even local knowledge on the environment they live in. In their research, Van der Vaart et al. (2018b) found that CABM can help with making people more aware of these connections and the reasons behind their emotions, sometimes even enhancing people's place attachment.

In another study, Van der Vaart et al. (2018a) argue that the use of CABM can stimulate people to talk about these emotions and verbalize their feelings of place attachment, place identity, and community during meetings, because the methods helped with creating an environment where participants felt safe. Grenni et al. (2020) found that by talking about their feelings in a collaborative atmosphere, people expressed that they felt positively towards the whole process and were excited to be involved.

According to Grenni et al. (2020), these findings could aid local governments in strengthening their communities, thus making them more resilient. This could in turn lead to more citizen engagement during projects and stimulate local communities to take initiative in spatial planning. Due to this enhanced community feeling, the *feeling of helplessness* barrier could be overcome, as community members can motivate each other to work through their past experiences and engage in the public participation process. Additionally, the safe space that is created through the use of CABM could help with overcoming the *lack of trust* barrier, as both Van der Vaart et al. (2018a; 2018b) and Grenni et al. (2020) have shown that participants were open to sharing their emotions and feelings with other stakeholders.

Imagine future scenarios

By focusing on people's narratives, Grenni et al.

(2020, p. 1361, based on Lichrou et al., 2017) state that CABM have the potential to not only the "*ability to reveal and challenge the assumptions underlying the existing structure and practices, but also a capacity to imagine alternative futures*". Van der Vaart et al. (2018a; 2018b) attribute this to the fact that CABM are able to enhance people's understanding of the place change and their evaluation of the presented solutions.

In practice, different CABM can be used to achieve these goals. Blomkamp (2018), for example, mentions the use of prototyping, which she derived from the field of industrial design. Prototyping in this case can be a model or paper or plastic, but it could also be in the form of other types of arts, such as video material, theater, or roleplaying. By using a low-cost version of an idea, and testing it out/showing it to the participants, they can better imagine how a plan would work on a larger scale in the future, and they can give immediate feedback (Blomkamp, 2018).

Another example is given by Grenni et al. (2020), who used a collage with 'future headlines' to give participants a stimulus to think about the future of their hometown and come up with creative new narratives about how they wanted their hometown to be. According to Grenni et al. (2020), participants indicated that this gave them the ability to come up with creative thoughts and different perspectives. Therefore, Grenni et al. (2020) suggest that the use of CABM could stimulate people to come up with creative and innovative thoughts and ideas.

These findings indicate that, first of all, CABM could help with overcoming the institutional *time, costs, and effort* barrier, as it gives governmental bodies the chance to let people think about their proposed plans and the future impacts (for example through prototyping). This would give people the chance to come up with things that they would like to change about the plans before the plans will be implemented on a big scale, potentially saving the government time and resources. Additionally, the ability to imagine future scenarios will give participants the chance to get a better understanding of future implications of proposed plans, which could help with overcoming the *lack of information/understanding* barrier. Lastly, by

showing people that are suffering from traumas due to past experiences and have a feeling of helplessness that things can change, and giving them the ability to discuss these changes, CABM could help with overcoming the *feeling of helplessness* barrier.

Generate creative solutions

Given the ability of CABM to let people imagine future scenarios, as discussed before, Grenni et al. (2020) argue that CABM can spark people's imagination and transform their mindsets to see things in a different perspective. Blomkamp (2018) adds to this that CABM in co-design could help with generating more creative and innovative thoughts, ideas, and eventually solutions.

In practice, Grenni et al. (2020) found that participants were indeed able come up with creative narratives and different perspectives that led them to generate creative solutions through the use of a collage. Additionally, Cruz et al. (2022) found that the use of CABM in a co-design project in Chile helped people with evaluating and analyzing alternative outcomes of their plans, and coming up with creative other solutions.

Similar to the benefits of imagining future scenarios, the ability to evaluate alternative outcomes and generate creative solutions shows that participants have a better understanding of the situation, and could, therefore, suggest that the use of creative and arts-based solutions could help with overcoming the *lack of information/understanding* barrier.

Strengthen community aspect

Lastly, as mentioned in the explanation of some of the other benefits, CABM can help with improving trust among participants and help with a better understanding between citizens and the local government (e.g. Stuiver et al., 2012; Blomkamp, 2018). According to Van der Vaart et al. (2018a), this enhanced trust between participants can aid in the strengthening of links between community members and creating a tighter community overall. In their case study, Van der Vaart et al. (2018a) found that community members from different backgrounds and age groups found them-

selves to be more connected and they suggest that this stronger connection could have potentially led to participants organizing community-based initiatives, which in turn enhances the community's resilience.

By strengthening the community feeling between citizens, CABM could help with overcoming the *lack of information/understanding* barrier, through collective learning. If the community is tight, people might help their community members by sharing information and helping them with understanding the issues at hand. Additionally, as mentioned by Van der Vaart et al. (2018a), strengthening the feeling of community could help with enhancing the community's resilience. This could give those with traumatic experiences, due to for example an extreme flood event, the ability to connect to their community members and ask for help. Therefore, CABM could help with overcoming the *feeling of helplessness* barrier.

Challenges and conditions for creative and arts-based methods

Even though CABM have many benefits compared to conventional public participation methods, both theory and practice have shown some challenges for these methods to be used effectively. First of all, organising public participation processes with CABM requires people with other disciplinary knowledge, specifically in the field of arts and culture, to join the process (Blomkamp, 2018). Blomkamp argues that this will most likely mean that governments need a cultural and structural reform through hiring people with both arts-based knowledge. Using CABM will also increase the complexity, and thus the need for extra coordination, of the decision-making processes, due to the design dimension being added (Blomkamp, 2018).

Additionally, in both the cases of Van der Vaart et al. (2018a) and Grenni et al. (2020), it was found that finding enough participants turned out to be a challenge. Van der Vaart et al. (2018a) suggested that the fact that the CABM they used were time-consuming could be one of the reasons for community members to drop out. Additionally, they found that certain participants were reluctant to participate due

to them being insecure about their creativity and the exposure to other participants. Thus, even though the long-term benefits of using CABM could outweigh the short-term costs, according to Reich et al. (1996, as cited by Blomkamp, 2018), these short-term costs might still be too demanding for some citizens to participate in the decision-making process.

Lastly, Stuiver et al. (2012, p. 203) state that “as an empowerment tool in planning processes, art is never neutral: when it seeks to engage and empower local people this in itself constitutes a political act”. Stuiver et al. elaborate on this by explaining that even though art can be used to give a voice to more vulnerable communities, it could also create a platform for people to protest against plans from the local government, which could be undesirable for both planners and (local) governments. It is, therefore, important to have open and transparent communication between stakeholders about the expectations in order to create trust, and to make sure that citizens do not get the sense that they are being used by planners or governmental institutions (Stuiver et al., 2012).

2.4 Conclusion

In this chapter, existing literature was used to create a framework that can be used to explain the function of public participation in projects related to spatial planning, describe the challenges and barriers of conventional public participation processes and identify how the benefits of creative and arts-based research methods can help with overcoming the barriers identified in conventional public participation processes. Additionally, the first two sub-questions of this research have been answered:

- “**What are barriers that prevent public participation processes from being successful?**”: see Table 2.1 & 2.2.
- “**What are the benefits of creative and arts-based methods in comparison to conventional public participation methods?**”: see Table 2.3.

This section will summarize the most important findings based on a conceptual model (see Figure 2.1).

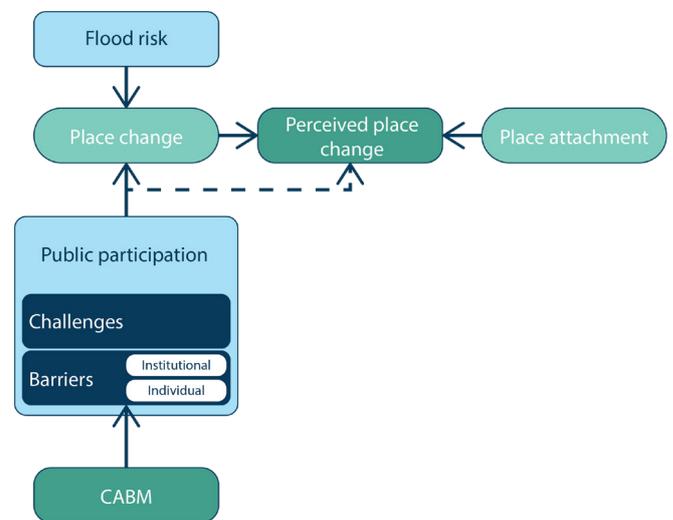


Fig. 2.1. Conceptual model based on literature framework. The conceptual model shows that creative and arts-based methods could influence the barriers in (conventional) public participation processes, and that this in turn could influence the place change itself and people’s perceived place change, because their opinions and needs can be taken into account. Other factors that influence the perceived place change are people’s place attachment and the actual place change (which could, for example, be necessary because of flood risk).

As discussed in this chapter, projects related to spatial planning often require changes to be made to a certain area or place. According to Van der Vaart et al. (2018b), this practice is called place change. Flood risk is one of the reasons why governmental institutions develop spatial projects that will lower the flood risk and create a more adaptive environment. However, local communities often develop emotions and narratives around their local environment through lived experience, resulting in a process called place attachment (Wester-Herber, 2004; Van der Vaart et al., 2018b). Place change is often described as a negative conception, as it could lead to a disruption of local communities, due to people perceiving this place change as a threat to their own identity and the identity of the space they inhabit, which, thus, collides with their place attachment (Stuiver et al., 2012). However, Van der Vaart et al. (2018b) state that the place change itself does not necessarily cause the negative conception, but that it is the way people *perceive* and *interpret* this change which actually affects their place attachment and feeling about the place change. Therefore, by giving local stakeholders the possibility to engage in the decision-making process through public parti-

cipation, they could get a better understanding of the issue at hand and give their own input based on their needs and opinions. Through this improved understanding among all stakeholders, place change could be perceived as something positive.

For the past decades, public participation, which has been defined as “*an umbrella term incorporating various forms of interaction with people, from informing and listening through dialogue, debate, and analysis to implementing jointly agreed solutions*” by Hügel & Davies (2020, p.2), has been used by governmental institutions and planners to improve the quality and effectiveness of decision-making processes, increase the legitimacy of those processes, and to improve social justice in planning processes, by giving stakeholders the opportunity to voice their opinions and needs (Dietz & Stern, 2008; Fung, 2015). However, even though public participation has been deemed as an ‘inherently good process’ by Hügel & Davies (2020), there are also challenges to public participation, such as the high costs with regards to resources and time and the fact that currently, stakeholders are often given ‘a false sense of involvement’, as it is mainly the stakeholders that are already in power (the have’s) who dominate the public participation processes (Sandercock, 1994, as cited by Lane, 2005).

Additionally, there are certain ‘systemic barriers’ with regards to conventional public participation processes that prevent public participation processes from being used more, and more effective (Hügel & Davies, 2020; Zuhair & Kurian, 2016). These barriers can be categorised as institutional barriers (withhold institutions from using public participation more extensive and effective) and as individual barriers (withhold stakeholders from participating). In order for public participation to have a positive influence on people’s perceived place change, these barriers have to be overcome and public participation has to be used as a process where a wide variety of stakeholders with different backgrounds and power positions can be fully engaged in the decision-making process (Stuiver et al., 2012). Pontee & Morris (2011, as cited by Hügel & Davies, 2020, p.10), therefore, state that “*more creative and imaginative ways of engaging will be required to do this*”.

One toolset that has been proposed in the literature to make public participation processes more effective and which could help with overcoming the barriers of conventional public participation processes, is the use of CABM (Blomkamp, 2018; Cruz et al., 2022; Grenni et al., 2020; Stuiver et al., 2012; Van der Vaart et al., 2018a; 2018b; Wolff et al., 2021). In this chapter, the various benefits of CABM, and how these could help with overcoming the different barriers of conventional public participation methods, have been discussed (e.g. see Table 2.3). The most important aspects of CABM are that the use of these methods can help with creating a better overview and understanding of the local narratives and help with creating a more inclusive and accessible environment during participation processes where stakeholders feel safe to voice their needs and opinions. Eventually, this could make public participation processes more effective, efficient, and socially just, and, thus, positively influence people’s perceived place change during projects related to spatial planning.

3. Research method

In this chapter, I will discuss the research methods that have been used for both my literature and empirical research. However, I will start with an introduction into the research area, which is the Code river basin area in Yogyakarta, Indonesia, as this will give a better understanding of the context and will help with understanding the justification for the research methods that have been used.

Based on three main sources (Heryanti, 2012; Suprayogi et al., 2020; Yulianti, 2021), this introduction gives an overview of the region itself including a general explanation of the governmental system in Indonesia, an overview of flood events and flood risk in Yogyakarta, an analysis of the state of public participation in Yogyakarta, and an identification of barriers

with regards to public participation in Yogyakarta.

Next, the research methods for the literature framework and the empirical research will be discussed, including an overview of the data collection methods and the data analysis methods. Lastly, the ethics and positionality with regards to this research will be elaborated on.

3.1 General information about the special region of Yogyakarta (DIY)

The special region of Yogyakarta

The Special Region of Yogyakarta (DIY) is located on Java in Indonesia (see Figure 3.1). It is called a special

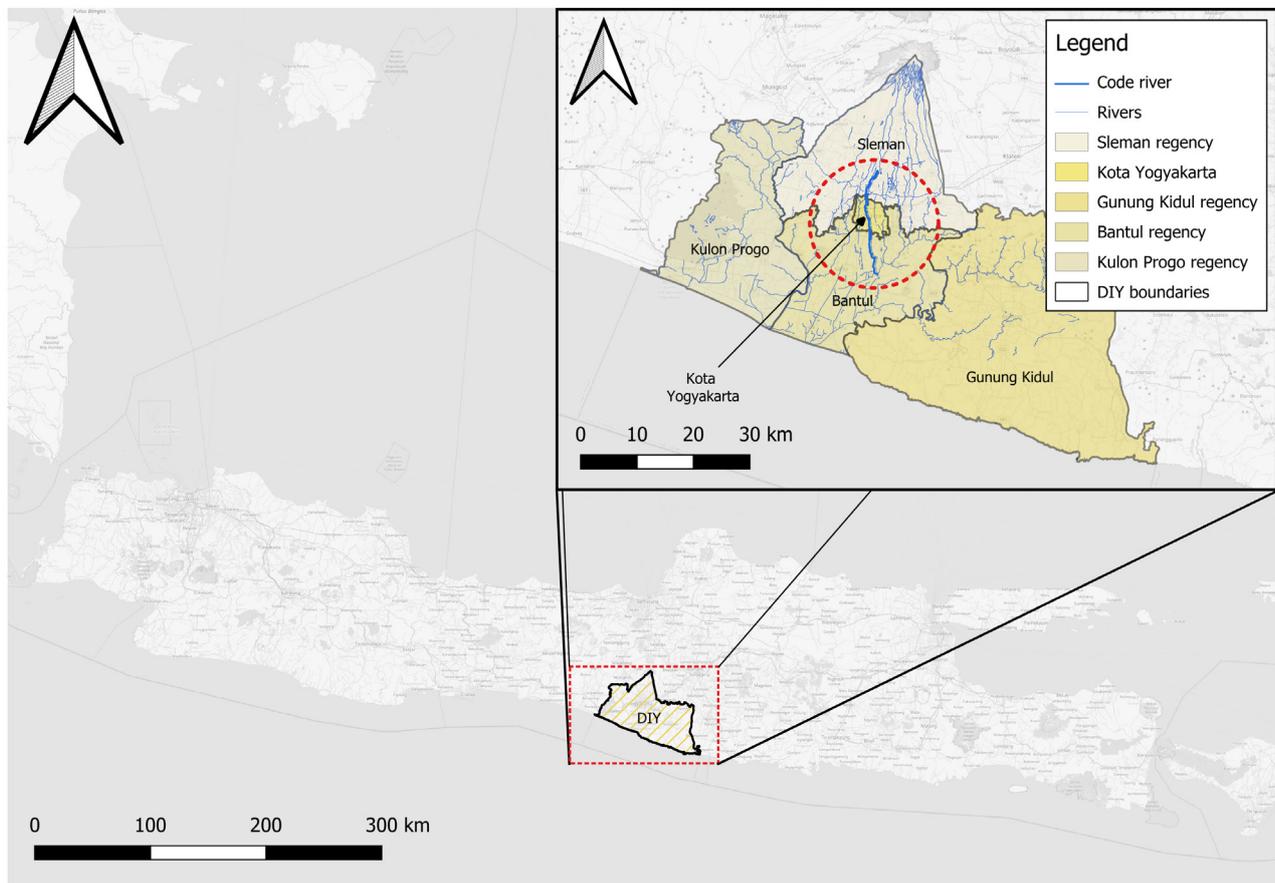


Fig. 3.1. Location of Yogyakarta, its regencies, and the Code river.

region because it is the only region in Indonesia that is still under the jurisdiction of a Sultan, who has a significant amount of governmental influence in the area. The Special Region of Yogyakarta is divided into 5 regencies: Kulon Progo, Sleman, Bantul, Gunung Kidul, and Kota Yogyakarta (Yogyakarta City).

In Indonesia, there are different levels of government, where the first level is the central government, the second level the provinces (or Special Region in the case of Yogyakarta), and the third level the regencies (Kabupaten) and cities (Kota). The difference between the regencies and cities is generally the size (regencies cover a greater land area), the demographic distribution, and the sources of income (cities are mainly dependent on urban economic activities, whereas regencies are mainly dependent on rural economic activities). Next, the regencies and cities are divided into districts (fourth level of government), or Kecamatan. However, in the Special Region of Yogyakarta, these districts are called Kapanewon for the districts of the regencies and Kemantren for the divisions of Kota Yogyakarta. These districts are then divided again into subdistricts (fifth level of government) that are called Desa (villages) and Kelurahan (urban communities) or Kalurahan in the case of Yogyakarta. In general, the Desa can be found in rural areas, and have more autonomy, whereas the Kelurahan can be found in urban areas (Wikipedia, 2023). The Desa and Kelurahan are also divided into smaller administrative areas, whose leaders are chosen by the community every couple of years, among which:

- *Pedukuhan*, which can be translated to hamlets or neighbourhoods and are residential areas bordered by natural borders, such as agricultural fields, rivers, or forests (Benjamin, 2019).
- *Rukun Warga* (RW) and *Rukun Tetangga* (RT), which are areas that were formed during the Japanese occupation between 1942 and 1945, during which the Japanese used these areas for military purposes. After the Indonesian independence, these areas were renamed to Rukun Warga and Rukun Tetangga for smaller administrative purposes (like community management, creating ID cards, and making statement letters) (Benjamin, 2019).

There is a significant amount of rivers that flow through the Special Region of Yogyakarta, but the three main rivers are the Gajahwong River in the Eastern part of Kota Yogyakarta, the Code River in the middle part of Kota Yogyakarta, and the Winongo River that runs through the Western part of the city (Heryanti, 2012). As mentioned in section 1.2, the Code River has been the source of some of the most significant urban flood events in Yogyakarta in the past decades, and will, therefore, act as a case area for this research.

The Code river finds its origin in the Southern part of Mount Merapi, where it starts as the Boyong river. The Boyong river is approximately 24 kilometres long, and splits into the Code river in the Southern part of Sleman. The Code river then continues for 17 kilometres and flows through Sleman, Kota Yogyakarta, and ends in Bantul (see Figure 3.1), where it joins with and continues as the Opak river that ends in the Indian ocean in the South (Heryanti, 2012).

Along the Code river, the population density is high and the income is low, due to the fact that many residents have jobs in the informal sector (such as selling food or other items on the street or working as a household aid) (Heryanti, 2012). While doing research in the area, Heryanti (2012) also found that 43% of the respondents had no education higher than senior high school. Even though these findings do not give a complete picture of the situation, it suggests that there is a relatively high percentage of vulnerable communities living along the Code river.

Flooding in Yogyakarta

According to Prayitno (2018, as cited by Suprayogi et al., 2020) The Special Region of Yogyakarta, and especially Kota Yogyakarta, has seen a rapid urban development in the past 15 years, due to an increase in population and the need for more and different types of facilities. Part of the urban development were an increase of infrastructure networks and built-up area, and a decrease of agricultural land and nature (Suprayogi et al., 2020). The changes made to the landscape resulted in more impervious surface area in and around Yogyakarta, and this led to a decrease in the amount of (rain)water that could infiltrate

the soil. Alvarez & Resosudarmo (2019, as cited by Suprayogi et al., 2020) state that a decrease of surface permeability can eventually lead to an increase in surface runoff and in some cases even to floods, and this has been an issue for Yogyakarta in the past years.

According to Suprayogi et al. (2020), there are a significant amount of flood-related issues in Yogyakarta that can be (partially) attributed to the urban development. First of all, the (uncontrolled) construction of dwellings and other buildings on the river banks have reduced the capacity of the river to store excess water, as these riverbanks acted as floodplains. Next, due to the increase of population, the water drainage patterns of the river has changed, and more water is flowing through the rivers. The combination of decreased capacity in the river and an increase of water flow has left little capacity for the rivers to transfer excess rain water out of the urban areas, resulting in floodings in various places throughout the Special Region of Yogyakarta during heavy rain events (Suprayogi et al., 2020). Additionally, eruptions of the volcano Merapi in the Northern part of the Special Region of Yogyakarta create 'banjir lahar dingin', or cold lava floods, which cause a great amount of rocks and stones to flow through the rivers, causing blockages and increased water flows. These cold lava floods were one of the main reasons for the disastrous flood of the Code river in 2010 (Yulianti, 2021).

According to Heryanti (2012), the government has been taking measures along the river banks and upstream to reduce the flood risk and vulnerability of the communities living there, such as dyke and dam improvements, cleaning up the river, and preparing emergency and evacuation plans in order to improve people's understanding of what to do during flood events. Additionally, the communities themselves have started programs to clean up the river and improve some of the dykes along the river (Heryanti, 2012).

Public participation in Yogyakarta

In an attempt to systematically analyse the public engagement and community resilience-building strategies in post-disaster redevelopment planning in Yogyakarta, Yulianti (2021) interviewed 14 people

that were either living in a post-disaster area or were part of a governmental body that was somehow involved in the post-disaster redevelopment planning after the volcano Merapi erupted in 2010. Yulianti (2021) found that two governmental institutions had reported that a public forum was held directly after the eruption in order to give affected communities the chance to share their opinions and wishes with regards to the redevelopment planning (Bappenas & BNPB, 2011, as cited by Yulianti, 2021). This was confirmed by local citizens, who stated that they were able to discuss the relocation planning with the government and decide how their new houses would look like (Yulianti, 2021).

Additionally, the public participation activities were used to educate the local residents and improve their understanding of emergency and evacuation plans, and measures they could take to adapt better to future eruptions (Yulianti, 2021). According to Bappenas & BNPB (2021, as cited by Yulianti, 2021), the public participation activities were not only done to satisfy the governmental regulations, but were requested by the affected communities themselves, as they wanted to be involved in the process and learn about ways to be better prepared, which shows how involved the local residents are with their communities and their place of living. Additionally, Yulianti's findings show that there public participation is being used to a certain extent for projects in the region.

Heryanti (2012) on the other hand argues that the governmental institutions responsible for flood defence along the Code river have largely ignored the experiences and their perceptions of flood vulnerability and risk. Additionally, she found that for projects aimed at improving the flood resilience of the area, the government had not taken into account the flood resilience of the communities themselves. This shows that despite public participation having a significant role in certain projects in Yogyakarta, citizen engagement is not included in all projects.

Local barriers in public participation

Yulianti (2021) found that both citizens and governmental institutions acknowledged certain barriers in the public participation process. One of the main

barriers for participation reported by Yulianti was the low education levels of participants, which is also the case for citizens in the Code river area according to Heryanti (2012). This made it more difficult for the citizens to understand the process (*complicated process*) and prevent them from getting enough information about the issues, for example the effects of climate change, and the necessity of more (effective) measures (*lack of information/understanding*) (Yulianti, 2021).

Furthermore, some citizens expressed that they thought the public participation meetings were too time consuming, and their jobs and other activities prevented them from joining the public participation process (*time, costs, and effort*). In order to make the process and information more understandable for citizens, a facilitator was hired by the government to explain difficult processes and (scientific) information to the citizens, which made the public participation process more time-consuming (Yulianti, 2021).

During the redevelopment projects, the government had to relocate some of the affected communities due to the dangerous position of their original dwellings. Yulianti (2021) found that the government tried to include the affected communities in the entire process, and incorporate their wishes and needs.

However, some citizens did not want to relocate, even though the area was declared a national park which prevented houses to be build there, and this caused certain tensions between those citizens and the government and it created distrust towards the government (*lack of trust*). In the case of Heryanti's (2012) research, citizens had the feeling that their experiences and opinions were not included in the decision-making process (*lack of diversity and inclusion*), which could also lead to a lack of trust towards the government.

Lastly, Yulianti (2021) suggests that some citizens are too shy to express their needs and desire to the government. This could be caused by a lack of understanding of the situation, but could also be an indicator that some citizens are too afraid to express their opinion in front of others or the government or feel the government cannot help them with their issues (*feeling of helplessness*).

3.2 Research strategy

Literature research

In order to get a better understanding of place attachment and place change, public participation, barriers in public participation, and the use of CABM, multiple literature researches were conducted. The goal of the literature review was to answer the following sub-questions:

1. *What are barriers that prevent public participation processes from being successful?*
2. *What are the benefits of creative and arts-based methods in comparison to conventional public participation methods?*

To answer these questions, I started with a pragmatic literature research with regards to public participation. Through this literature research I wanted to get a better understanding of public participation itself and the challenges and barriers that have been identified during previous projects. First of all, I came up with criteria for relevant articles:

- Relevant articles had to be in English;
- Relevant articles had to be published between 2013 and 2023, to ensure that the paper pool would include the most recent, but not outdated, findings in the field;
- Relevant articles had to be cited at least 20 times to ensure their scientific relevance (unless they were written between 2020 and 2023, due to the fact that they were still relatively new).
- Relevant articles had to be in the field of spatial planning, flood risk management, or environmental planning.

Next, I used Dietz & Stern (2008), due to it being one of my key sources in a previous study on public participation, to select key words and came up with the following search terms: "barriers public participation", "barriers citizen engagement", "challenges public participation", and "challenges citizen engagement". I used these search terms on Google Scholar and for all 4 search terms I read through the first 5 pages, which

resulted in a total of 200 articles. Based on the criteria mentioned before, I scanned the titles and ended up with 19 relevant articles. However, after reading the abstract and scanning through the articles, only 6 of these articles proved to be focused on barriers for public participation, while also giving a detailed analysis of public participation and the challenges for public participation. During the analysis of the literature, three more articles were found that were referenced by the relevant articles, including Dietz & Stern (2008), bringing the total number of articles used for this section to 9.

For the literature research on CABM, I first of all used the articles from Stuiver et al. (2012) and Van der Vaart et al. (2018a; 2018b) to get an overall understanding of the methods, as these were papers given to me by one of my supervisors (Gwenda van der Vaart). To find additional literature, I used the same criteria as the ones for public participation, and I used the following search terms on Google Scholar: “Creative methods” in “public participation”; and “arts-based methods” in “public participation”. Reading through the first 5 pages resulted in a total of 100 articles, and after scanning through the titles and the abstracts, I found 4 relevant articles. Combined with the articles from Stuiver et al. (2012) and Van der Vaart et al. (2018a; 2018b) this resulted in a total number of 7 articles for this section.

Through these articles, I also recognized the importance of explaining place attachment, place change, and perceived place change for understanding the use of public participation and CABM. Therefore, I combined findings from Stuiver et al. (2012) and Van der Vaart (2018a; 2018b) with findings from Wester-Herber (2004), which I found through snowballing, to formulate the section about place attachment and place change.

Lastly, in order to get a better understanding of the research area, I conducted a small research by using the search terms “flood risk Code river Yogyakarta” and “public participation Code river Yogyakarta” on Google Scholar. By scanning through the first two pages, taking into account titles and abstracts, I was able to find 3 relevant articles that were English to write section 3.1, which were from Heryanti (2012), Suprayogi et al. (2020) and Yulianti (2021).

Empirical research

Next to the fact that this research is an explorative research with the aim to hypothesize how the use of CABM can help with overcoming the barriers in public participation through a literature framework, I also wanted to study the possibilities for the actual implementation of these CABM through a case study. CABM are aimed to make public participation more inclusive, especially with regards to vulnerable communities, and, therefore, a case had to be chosen that had the characteristics and demographics of a place where CABM could have a significant impact. Additionally, in order to attribute to the gap in the literature with regards to the use of CABM in countries outside of Europe, the case study had to be in a country outside of Europe. The Code river in Yogyakarta was then chosen as research area, due to the local conditions and the fact that I feel rather familiar with the area. Due to the explorative nature of this research, one case study was deemed as sufficient to reach the research objective.

In order to find out what the current state of public participation with regards to flood risk management in the Code river basin area is and what the local barriers for public participation are (*sub-question 3*), and to determine whether, and to what extent, CABM could potentially be used in Yogyakarta to overcome the barriers of public participation found in the area (*sub-question 4*), a case study has been performed in a flood-prone area along the Code river. This case study included in-situ (on site) interviews with citizens who live in the flood risk areas and expert interviews with people who were working in the local government, citizen empowerment groups, or in the cultural sector.

The reason why interviews were chosen as a data gathering method, is because its qualitative nature where respondents can tell their story and this will help with discovering the narratives that play an important aspect in the respondent's life and the community around them. The aim of the empirical research of this study is to get a better understanding of the experiences and feelings of the respondents with regards to place attachment, flooding, and public participation, and of the opinions and attitudes of experts

Table 3.1. Overview of research themes conducted in order to prepare for and perform the empirical research.

No.	Research theme	Data requirement	Source
1.	Determine research area	- Topographic map - Flood risk map - Flood vulnerability map	Departemen Fakultas Teknik Universitas Gadjah Mada Yogyakarta, 2021.
2.	Identify place attachment	Qualitative data on the perception of the place attachment from the local communities and their community feeling	In-situ interviews
3.	Identify flood experiences	Qualitative data on the experiences from local communities with flood events and their current flood perception	In-situ interviews
4.	Identify experience with public participation & local barriers	Qualitative data on the experiences from both local citizens and other stakeholders (local government, local community organisations & academics)	In-situ interviews & expert interviews
5.	Collect thoughts on creative and arts-based methods	Qualitative data on the thoughts of local government, local community organisations & academics on the use of creative and arts-based methods	Expert interviews

with regards to the potential use of CABM, and interviews provide a medium to capture all these attributes (University libraries, 2023; Verhoeven, 2020).

Before the interviews were conducted, literature from the literature framework (chapter 2) and the general description of the Special Region of Yogyakarta (section 3.1) were used to determine which data had to be gathered in the area and which questions had to be asked during the interviews. Additionally, information about flood risk areas from the Gadjah Mada University was used to determine the research area for the case study. Table 3.1 gives an overview of the research themes that were used for this research, which data was required for these themes, and which sources were used. All of the interviews for this research were conducted in October 2023.

Empirical research area

Based on a local flood risk map and a flood vulnerability map made by the Faculty of Engineering at the Gadjah Mada University, a research area was chosen in the Northern area of Kota Yogyakarta and the Southern part of the Sleman regency. The flood risk map distinguished between a low flood risk, a medium flood risk, and a high flood risk, but due to the low flood risk only being in the areas outside the river basin area, I decided to only visualise the medium and

high flood risk. Additionally, the flood vulnerability map used for this research showed areas along the river that had a high flood vulnerability. These two maps were combined in a geo information system to get a better understanding of the vulnerable areas along the river, and the resulting map can be seen in Figure 3.2.

The research area covers 5 different desa/kalurahan in 2 different regencies, and these are: Desa Sinduadi (Sleman), Kalurahan Caturtunggal (Sleman), Kalurahan Karangwaru (Kota Yogyakarta), Kalurahan Cokordinigratan (Kota Yogyakarta), and Kalurahan Terban (Kota Yogyakarta). For the interviews, I decided to go to the areas that were either highly vulnerable for floodings or had a high flood risk. This meant that areas in Sinduadi, Caturtunggal, and Terban were chosen. Before conducting the interviews, approval was requested from and granted by the Kalurahan/desa governments, and the representatives of the Rukun Tertangga were notified of our presence and asked for permission.

Interviews with the residents

A total of 17 citizens were interviewed for this research, all living along the Code river in Yogyakarta in areas with a high flood vulnerability and/or a high flood risk. Additionally, all participants were over 18

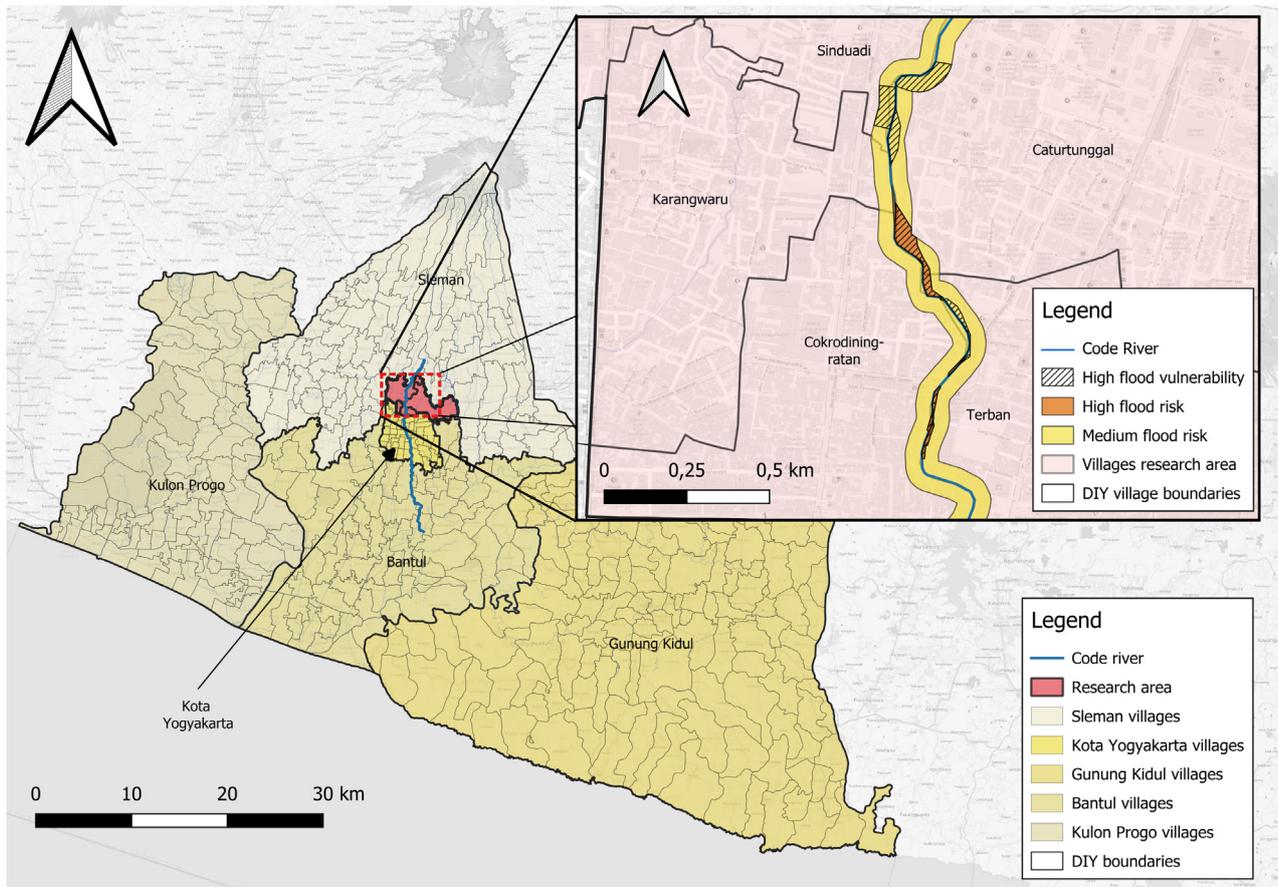


Fig. 3.2. Location of the research area in DIY and the flood risk and vulnerability along the river.

years old. In order to overcome the language barrier (my Indonesian is not good enough to conduct interviews), an Indonesian classmate acted as translator during the interviews and helped me with translating the interview guide beforehand (see Appendix A).

In order to get a better understanding of the area during the interviews, I decided to go to the selected areas and ask random citizens whether they wanted to be interviewed about their community, their experiences with floods, and their involvement in public participation. Per area, 2 or 3 interviews were conducted with a varying amount of citizens per interview (e.g. in some cases a group of citizens or a husband and wife decided to do the interview together) (see Table 3.2 for an overview of all interview, and Table 3.3, 3.4 & 3.5 for a more detailed overview per *kalurahan*). Before the interviews started, the respondents were informed about the fact that the interviews were recorded, notes were taken, and that their answers would be used for this research and a research paper. Additionally, respondents were asked whether they could show us some interesting locations that

were relevant to their experiences, and pictures were taken from these areas (e.g. Figure 3.3). All respondents were welcoming and open to sharing their experiences and opinions and all of the interviews were conducted in or in front of the respondents' houses. In some cases, they showed us some interesting locations in the area that were, for example, affected by the floods or where flood risk measures were (being) taken.

The interviews were conducted in a semi-structured way, where the questions were leading in the conversation, but they could be slightly adjusted on the spot if necessary and additional in-depth questions were asked to clarify answers or get a better understanding of interesting topics. Additionally, during the interviews the translator and I discussed the answers in order to make sure they covered the required information and to get a better understanding. This most likely did not influence the positionality of the respondents, as the discussions were done in English, and none of the respondents were able to talk or understand English.

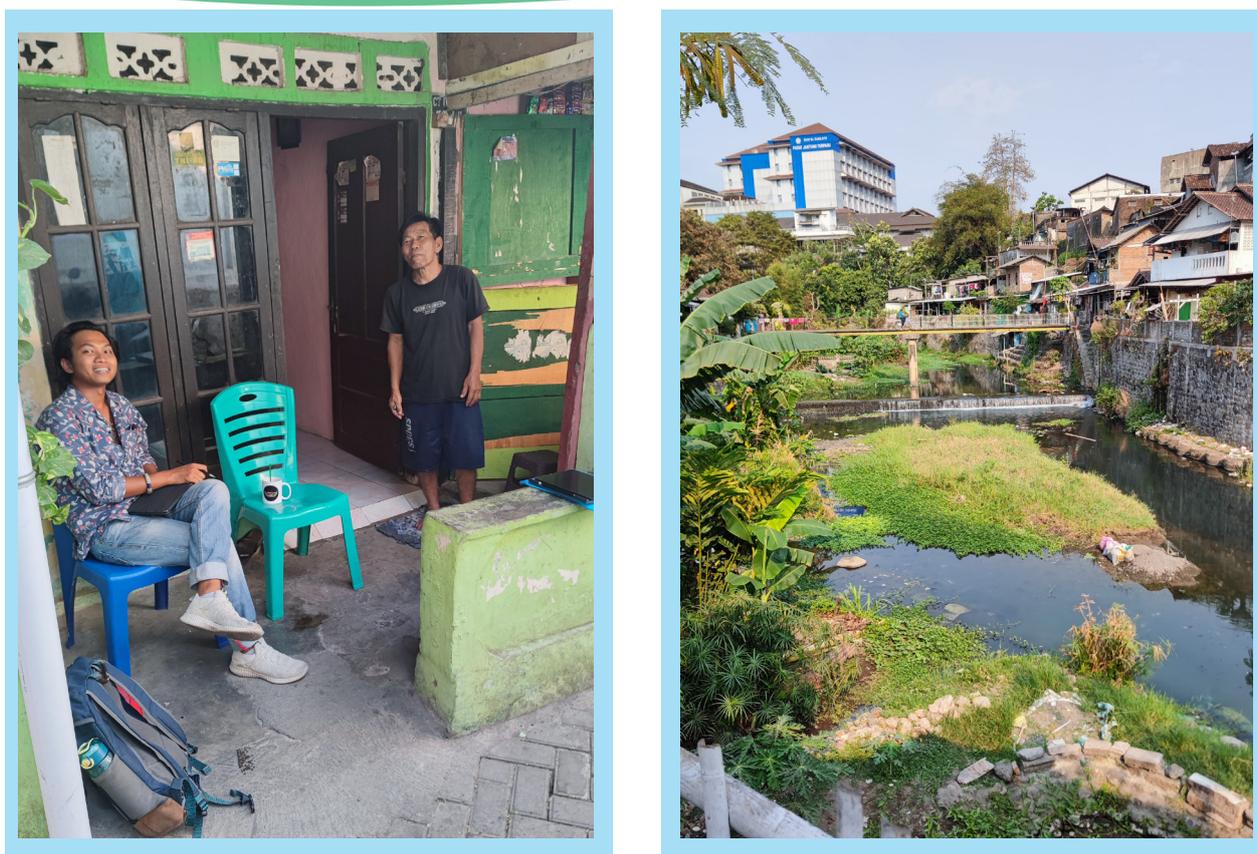


Fig. 3.3. Picture A (left) shows the translator with one of the respondents in front of his house and picture B (right) shows a part of the river in the Sinduadi/Caturtunggal area.

Table 3.2. Overview of the number of participants interviewed per area, where flood risk is associated with the possibility of experiencing a flood and flood vulnerability is associated with the amount of damage a flood could cause.

Desa/Kalurahan	Flood risk	Flood vulnerability	Number of interviews	Number of interviewees	Respondent no.
Sinduadi	Medium	High	2	3	7, 8, 9.
Caturtunggal	High	High	2	4	10, 11, 12, 13.
Terban	Medium	High	2	3	14, 15, 16.
Terban	High	High	4	7	1, 2, 3, 4, 5, 6, 17.

Table 3.3. Details of the respondents from Sinduadi.

Interviewee	Flood risk	Sex	Occupation	Years of living in the area
7	Medium risk	Male	Construction worker	25 years
8 & 9	Medium risk	Male	Construction workers	3 years & 40 years

Table 3.4. Details of the respondents from Caturtunggal.

Interviewee	Flood risk	Sex	Occupation	Years of living in the area
10 & 11	High risk	Female & Male	Housewife & community representative (RT)/night security	26 years
12 & 13	High risk	Female & Male	Food vendor & freelancer	38 years

Table 3.5. Details of the respondents from Terban.

Interviewee	Flood risk	Sex	Occupation	Years of living in the area
1	High risk	Female	Housewife	20 years
2, 3, 4 & 5	High risk	Female	Housewives & food vendors	Up to 25 years
6	High risk	Male	Community representative (RT)/ driver	41 years
14	Medium risk	Male	Community representative (RT)/ designer	47 years
15 & 16	Medium risk	Female & male	Housewife & community worker	10 years & 31 years
17	High risk	Male	Food vendor	8 years

Interviews with the experts

For the expert interviews, experts were selected who were active in the local government, local empowerment groups, and/or the cultural and academic sector, in collaboration with my supervisors. Because most of the experts indicated that they would rather do the interviews in Indonesian, my classmate acted as a translator during these interviews as well and he also helped me with translating this interview guide beforehand as well (see Appendix B).

The interview questions were aimed at getting a better understanding of how public participation processes are performed in Yogyakarta and to identify local barriers in the public participation processes. Once the questions related to public participation were answered, and the purpose of creative and arts-based was explained and some examples were given to the experts, after which they were asked whether they have ever used these in their projects and whether they would see these methods as benefi-

cial in overcoming the barriers of public participation in Yogyakarta.

Before the interviews were conducted, the experts were given a consent form that explained the purpose of the research and how their data would be used in this research (see Appendix C). The names of the experts were made anonymous for this research, but their function and years of experience can be found in Table 3.3.

Similar to the citizen interviews, the expert interviews were conducted in a semi-structured way, where the questions were leading in the conversation, but they could be slightly adjusted on the spot if necessary and additional in-depth questions were asked to clarify answers or get a better understanding of interesting topics. Additionally, during the interviews the translator and I discussed the answers in order to make sure they covered the required information and to get a better understanding.

Table 3.6. Overview of the experts.

Name	Profession	Years of experience
Bu A.	Board member of the Women Empowerment Group Kalijawi	11 years
Pak T.	Co-founder of the River Community Empowerment Group Perkumpulan Kali Code	14 years
Pak H.	Head of the village government of Desa Sinduadi	9 years (was academic staff at UGM before)
Pak N.	Secretary of Kalurahan Terban	2 years
Pak B.	Lecturer at UGM, head of cultural office Yogyakarta, and social activist	30 years

Data analysis

The responses from both the citizen interviews and the expert interviews were compiled in a document and the notes from the interviews were complemented with data from the recordings where necessary. They were then transcribed in the form of an 'elaborate summary', which meant that I typed out the most important points of the interview with as many details as necessary to be able to analyse the data. Additionally, interesting quotes or anecdotes were typed out, as they could be used in the analysis to create a detailed image of the conditions in the area and of the public participation processes.

The data from the interviews was then analysed in a inductive manner, which means that the themes for coding were chosen based on the data itself. The most important themes that were found during the analysis of the data, and that were also used for the coding of the data were:

- Living in the area;
- living next to the river;
- Flood experience;
- Changes after the flood event of 2010;
- Public participation during these changes;
- Best way to approach the community;
- Current and future plans;
- Interesting remarks.

The 'interesting remark' theme was mainly aimed at highlighting new or interesting information that stood out during the interview and gave more depth to the overall analysis.

Next, data from interviews with both experts and residents was used to develop a clear image of the way public participation is being used in the research area and barriers that can be found with regards to these public participation processes. Additionally, an overview of the thoughts of experts on the possible use and effectiveness of CABM in the Code river basin was formulated by deductively (decide themes prior to the analysis) analysing the transcriptions with the following themes:

- Experiences with CABM;
- positive aspects of CABM;

- negative aspects of CABM;
- Additional remarks.

In chapter 5, the findings from the interviews are linked to findings in the literature, and differences/similarities in the public participation process and the barriers of these processes are identified. Additionally, the findings from the literature framework (chapter 2) are used to analyse how CABM can help with overcoming the barriers of public participation processes found in Yogyakarta.

3.3 Ethics & positionality

In order to safeguard the personal details of the respondents, and make sure that vulnerable information could not be linked to any of the respondents, all interviews were conducted with ethical principles in mind. Before the interviews with citizens were conducted, all participants were informed that their answers were recorded in both written and spoken form by both me and the translator. Additionally, we told the respondents that the questions would be about their flood experience and public participation and they were told that their answers would be used for this research. They all agreed with being interviewed and we made it clear that they could stop the interview whenever they wanted and that they could request us to not use certain sensitive information, however, this was not the case in any of the interviews.

Before conducting the interviews with experts, they were informed about the purpose of the research and how the data would be used. Additionally, they were asked to sign the consent form (appendix C), which explained that the interviews would be recorded, that their names could be made anonymous in the report (although their profession and years of experience would still be mentioned), and that I, as researcher, have permission to use the data in this research and for other academic purposes, including academic journals.

Due to the possibility of being politically or personally sensitive, all data from the interviews was carefully maintained by me and the translator on the internal storage of our tablets and computers and on hard copies. After completing the transcriptions of

the data, it was carefully stored in a drive only accessible by me and the translator. None of the names of the respondents of the citizen interviews was recorded, and they were told that their profession, the general location of the interviews, and the time they have lived in the area would be used for the report.

Next, I understand that my positionality as a white, male researcher in Indonesia could affect the participants' view towards me, especially in areas with more vulnerable communities. I tried to overcome this barrier (and the language barrier) by using a translator who is originally from Indonesia, and this helped with gaining the trust of the respondents. In the case of citizen interviews, we made sure to inform the proper authorities and representatives of the community of our presence and we sat down with citizens in or around their house, where we talked for a bit before conducted the interviews, in order to make sure the respondents felt at ease with our presence.

With regards to the age of the translator (26) and me (25), both me and the translator did not notice any positive or negative association. All respondents answered the questions seriously and we did not notice any 'special treatment'. However, when we mentioned our association to the Gadjah Mada University, all respondents reacted positively and were interested in our studies. Researchers and lecturers from the university come to these areas often, and are seen as a positive influence. Therefore, this might have positively influenced both the willingness of the citizens and experts to participate in the interviews and our credibility.

4. Results

In this chapter, I will discuss the results of the analysis of the interviews in order to answer the third sub-question of this research and to give a basis for the fourth sub-question, which will be fully answered in the next chapter.

3. *What is the current state of public participation with regards to flood risk management in the Code river basin area and what are the local barriers?*
4. *To what extent can creative and arts-based methods help with overcoming barriers of public participation processes in the field of flood risk management in the Code river basin area in Yogyakarta, Indonesia?*

The chapter will start with a general impression of the area based on observations that have been made while walking around the research area. Next, findings from the interviews with residents will be used to discuss the place attachment in the area and the experience

with flooding.

Based on findings from the interviews with both residents and experts, an overview of experiences with public participation in the area will be given, continued by a discussion of the barriers that have been identified by the residents of the research area and the experts. Lastly, the opinions from experts with regards to the potential use and benefits of CABM in the area (and Yogyakarta in general) will be described.

4.1 Impressions of the area

The general impression of the research area was rather positive, due to the quality of the infrastructure and the houses, and the amount of nature (see Figure 4.1). It felt like entering a small rural village, while being a couple hundred meters away from the main roads of the city. Additionally, all areas that we visited contained some sort of art (like murals), which was used by the communities to express their opinions

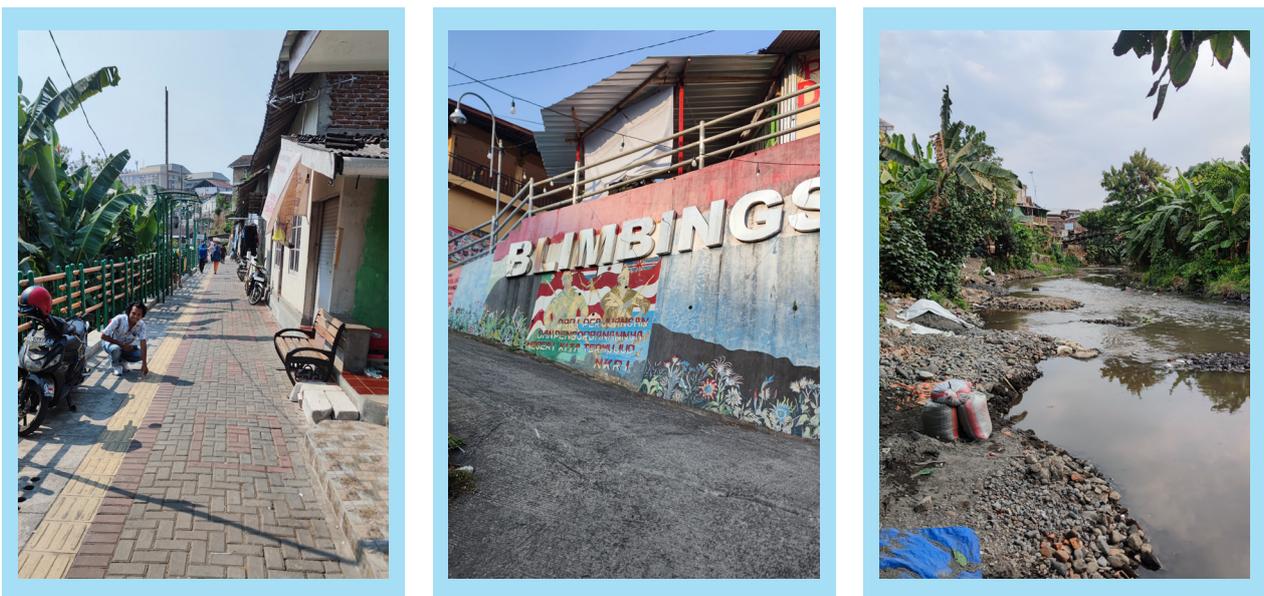


Fig. 4.1. Picture A (left) shows the improved and widened road in the Terban area with a small food vendor on the right. Picture B (middle) shows a hill dyke in Caturtunggal with a lot of art to make the area more attractive and show the community's identity. Picture C (right) shows the river in Terban, where community members gather stones and sand to use elsewhere.

and identity, and sometimes to educate the younger members of the community. Most of the roads were at least 3 meters above the water level of the river (which was partially due to the fact that it was dry season) and most of the dykes seemed to be in good condition, although there were some exceptions (which were later pointed out by the interviewees).

During the interviews, some general things stood out: it became clear that the entire riverbank is the property of the Sultan of Yogyakarta and that initially residents occupied the area illegally. However, the sultan has given the citizens the right to live on the land but not to own the land, and they are granted this right by applying for a permit. Additionally, all respondents mentioned that the communities living next to the river have monthly community meetings, separated between men, women, and youth, during which the members of the community can discuss topics that are important to them. The community representative (Pak - or Mister - RT) also joins these meetings, and informs the members about news from the government and he collects the needs and opinions from the members to convey these to the village government if necessary.

4.2 Place attachment

In general, the answers from interviewed residents from all three villages were similar in the context of place attachment. Most of them stated that they liked living in the areas next to the Code river, and that they have a strong attachment to the place and their respective communities. Some of the residents mentioned that they felt the area was a 'safe haven', as they were not originally from Jogja and could not afford to rent a place. Therefore, they decided to stay in an illegal settlement, which now turned into an informal settlement where they have the 'right to live' by requesting a permit, while still not paying rent. Many of the residents liked the fact that the area felt like a small village, while still being close to the city and the facilities it offered. Additionally, the memories residents had from growing up or raising their kids in the area made them feel attached to the neighbourhood and their communities.

However, one of the residents was less positive

about the area: he mentioned that he only lived in the area due to the fact that he felt that he could not move anywhere else, and that if another opportunity arose, he would be happy to move away. The resident did not further elaborate on this point, but later in the interview he did mention that he was afraid of conveying his opinions and needs to the government, due to a fear of being evicted from his home, which could be a reason for him wanting to leave the area.

All residents interviewed mentioned that they were tight with their respective communities, with some even stating that their communities felt like family. One of the main reasons for this strong community feeling was the organisation of monthly community meetings, where members meet up in three different groups (men, women, and youth) and voice their opinion about everything that was going on in the neighbourhood and discuss this with each other. Additionally, some residents stated that there are various religions in the area, and that this can be seen as a positive thing: whenever there is a religious event, all community members, despite of their religion, can join the festivities, which brings the community even closer together. Lastly, throughout the whole area, residents mentioned that the practice of 'gotong royong' was an important aspect of the communities and that community members take care of each other: "*if someone has a problem, the community will help each other out*".

4.3 Experience with flooding

According to all residents interviewed, living next to the Code river does not necessarily influence their daily lives other than providing a nice view. During rainy season, there can be some minor cases of flooding, but this usually does not have a significant impact on them, except for a lack of accessibility of the roads next to the river due to minor damages.

However, according to all residents interviewed, the most noteworthy flood they have experienced during the time they have lived in the area, was the 2010 flood, caused by the cold lava flow from the Merapi eruption. After the eruption, the river carried big stones and debris through the river basin, causing blockages and floodings, and some residents mentio-



Fig. 4.2. During the Merapi flood in 2010, the road in the Northern part of Terban was lower than it is now, and because of this water, stones and waste came into the lower houses. Picture A (left) shows where the old door of a house was located before the flood. After the flood it was replaced in another position and the hole was closed with cement. Picture B (right) shows one of the houses that was evicted after the flood because it was filled with stones and waste, and was too low to reach the new, heightened, road.

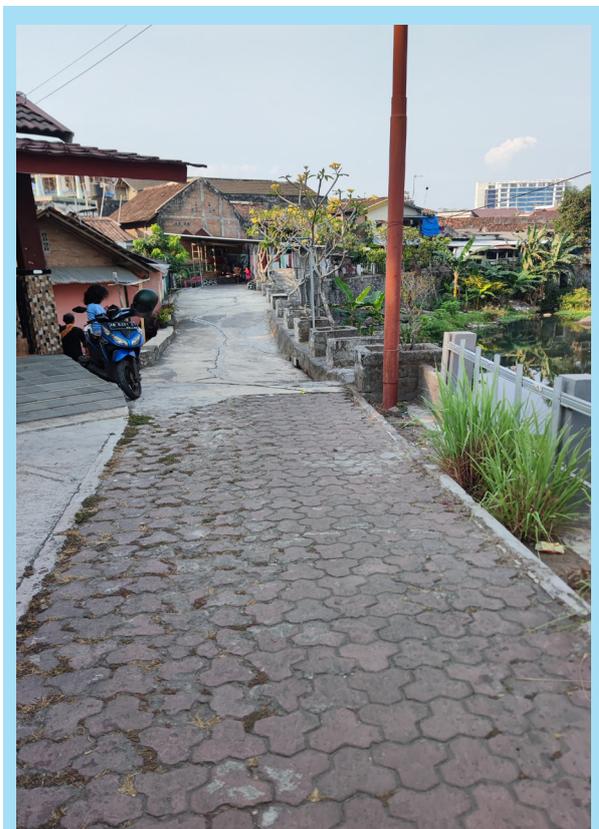
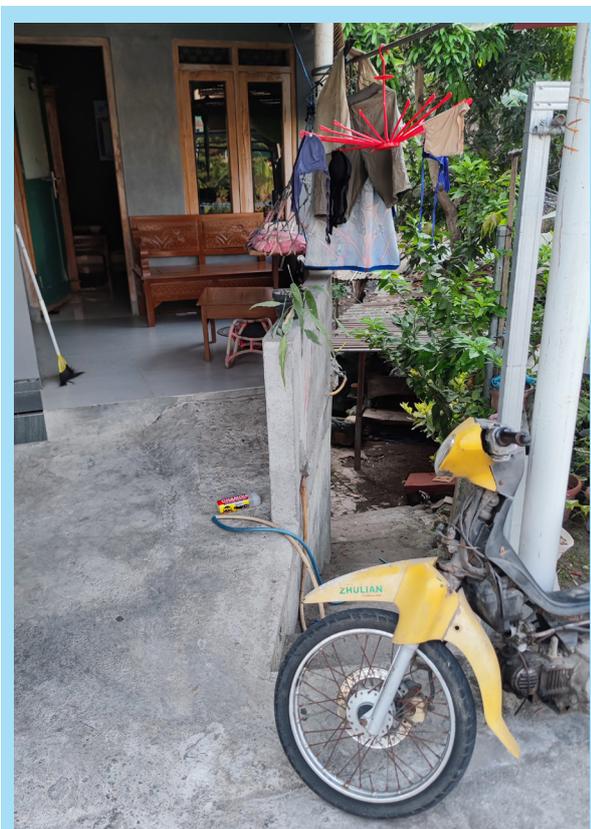


Fig. 4.3. Picture A (left) shows the house of one of the respondents where the lower part of the garden was flooded with water, waste, and stones. Picture B (right) shows a part of the road that collapsed during the 2010 Merapi flood.

ned cows, small vans, refrigerators, and even cemetery debris (including human remains) being carried by the river. Even though the situation in the Southern parts of the river was worse than in the Northern area according to some residents, the water of the river still reached knee height in the houses along the river, damaging the furniture of some respondents, leaving debris in their homes, and damaging the local infrastructure (see Figure 4.2 & 4.3).

Due to the small flood events they had experienced before, the communities along the river had already worked out evacuation plans and they were able to evacuate all the people from the area to higher ground safely. The people whose house was affected by the water and debris could stay in the houses of other community members that were more uphill while they were cleaning the area and fixing the damages. In the Caturtunggal area, this period was extended due

to the hotel on the opposite riverbank partially collapsing in the river, causing a blockage that resulted in another flood (see Figure 4.4).

Directly after the flood, NGOs, religious groups, and governmental organisations came to the area to help the local communities by cleaning up the river and repairing damages caused by the flood, and by giving community members in need financial aid and food. Additionally, the government and NGOs funded a community initiative to repair the damaged dykes and infrastructure around the river in some parts of the area. Some respondents mentioned that the Merapi authorities, who monitor activities in and around the volcano, have come to the area on a weekly base since the eruption in order to check the safety of the area, and some of the community members have joined them as volunteers to keep closer contact between the authorities and the communities.

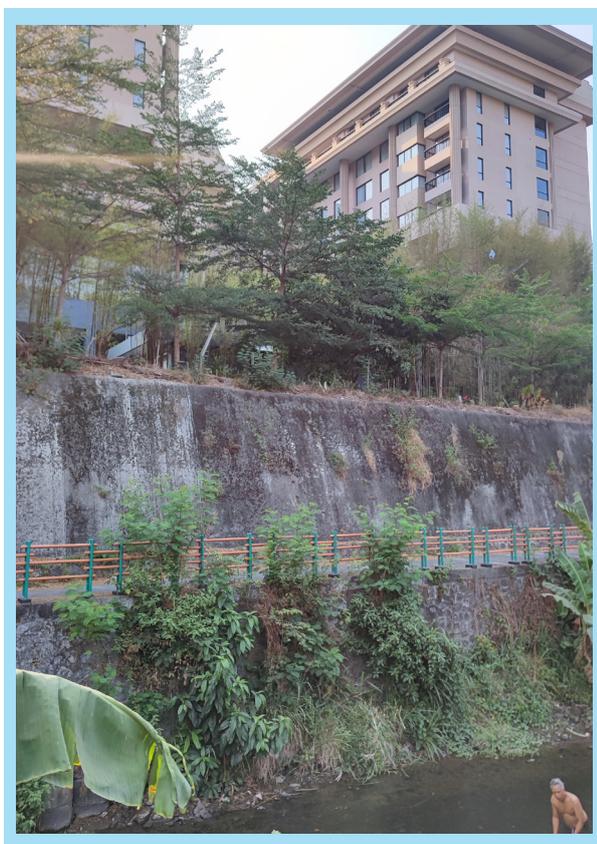


Fig. 4.4. Picture A (left) shows the hotel on the opposite riverbank that collapsed after the 2010 Merapi flood, and picture B (right) shows the hill dyke that prevents landslides in the area. The community has used art to make the dyke more attractive and show their identity.

According to one of the residents from the Terban area, the community in his area was afraid of future flood events, even after the government had repaired the existing dykes. Therefore, the community started to build an extra wall (1 meter high) on top of the dyke (see Figure 4.5). In order to get funding to acquire the necessary resources, the community representative went to the village government and handed in a proposal that explained the situation and the views of the community. This proposal also included a request to the government to raise the existing bridge in the area (see Figure 4.5), as during the Merapi flooding, a significant amount of debris got stuck behind it.

While waiting for the village government's approval, the community used stones and sand from the river and asked for resources from surrounding communities in order to build the wall themselves. This was due to their fear of another flood event and uncertainty about whether they would receive the government's approval. This practice is a clear example of 'gotong royong' and the community taking initiative shows the level of community resilience in the area, as they understand the risk and which measures they can take themselves. The government approved the request rather quickly and started paying for all the

resources necessary to build the wall.

For now, the residents from Terban mentioned that, even though they are still afraid of future flood events, especially if there is another big eruption, they think the community is well prepared to deal with it. Some respondents mentioned that just before the 2010 flood, the community got a flood warning but no one believed that it would be as bad as it turned out to be. If there would be a flood event now, everyone would listen to the flood warnings and follow the evacuation plans that they have worked out with governmental institutions. Additionally, one of the residents stated that he believes that both the structural and non-structural measures they have taken together with the village government will prevent a similar destructive event as the Merapi flooding of 2010.

In the Caturtunggal area, the city government and the NGO named PNPM came to the area after the 2010 flood and had meetings with the local community to discuss their needs and opinions. The community came up with a lot of ideas, but their main concern was the improvement of the river dykes and the hill dykes (aimed at preventing landslides, see Figure 4.4), as parts of the existing river dykes were not



Fig. 4.5. All pictures were taken in the Southern part of Terban and show the road next to the river, the wall built by the community as an extra layer of protection, the river itself, and the bridge which has been heightened after the community requested it from the government.



Fig. 4.6. A part of the dyke in Caturtunggal that has not been completely reinforced yet.

strengthened after the flood. So far, only the hill dykes have been improved, because the river dykes are not within the jurisdiction of the village or city government, but are the responsibility of the central government. All residents from the Caturtunggal area that were interviewed mentioned that because the dykes were not completely reinforced yet (see Figure 4.6), there is still some fear among the local communities for future flood events. Some residents stated that because of this fear, the community is now trying to collect funds from the police and friends to reinforce the dykes themselves, again showing the resilience of the community through the practice of ‘gotong royong’.

In the Sinduadi area, the community gathered all the stones and other useful materials that were taken by the river on a nearby football field to use them later. One of the residents mentioned that the government started funding a community river clean-up program, that has now turned into a monthly community activity, where they clean the waste, the sewers and the dykes. This monthly clean-up is now funded by the community themselves: every month, 3 households provide funds and food for the clean-up, and these households rotate every month. However, the waste from the river is being piled on a side of the river that has not been ‘sealed’, as can be seen

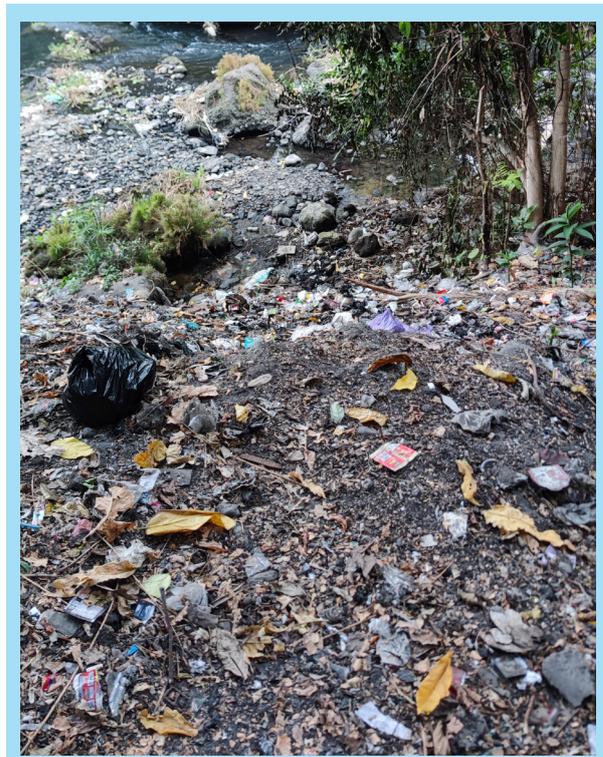
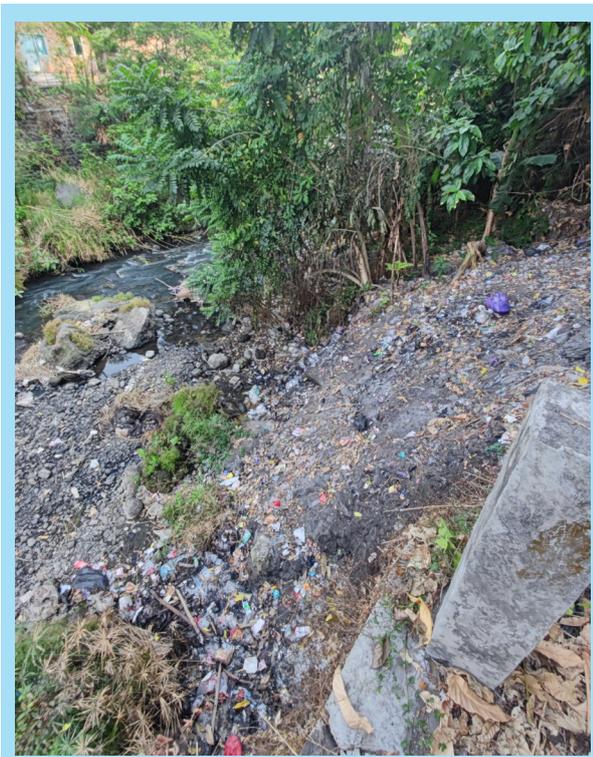


Fig. 4.7. Even though the community cleans the river every month, they dump the waste on a location next to the river where it is not protected from a future flood event.

in Figure 4.7, which causes a risk for the waste to fall back into the river during small flood events or heavy weather. This could indicate a barrier of information/understanding, as the community members might not know the risks of storing the waste in an exposed place like this or they might not know where else to bring the waste.

4.4 Experience with public participation

General impression of public participation

In general, it seems that there is a participatory system in place in the research area, where the community representative is the bridge between the village government and the communities. However, according to Pak N, who is secretary for one of the village governments, everyone can join meetings with the village government, but the communities often decide to only send the community representatives. It might not be clear for all residents that they can join these meetings, as the residents and Bu A. mentioned that only community representatives are allowed, which could be an indication for a lack of information/un-

derstanding or a complicated process.

Whenever the village government wants to implement a certain plan, they will inform the community representatives, who will then discuss these plans with the local communities. Some residents mentioned that if the local communities have concerns about the plans, the village government will come down to the communities to discuss what aspects need to be changed in order for the community to agree with the implementation of the plans, which would indicate that the level of participation goes beyond simply informing (see figure 4.8).

However, even though residents mentioned that they have the possibility to request changes to be made for certain plans, they did not specify whether they had actually done this themselves. Some of the residents even stated that they did have some concerns about certain plans (for example with regards to the lack of funds or safety), but that they did not want to voice these concerns due to varying reasons (such as being afraid of eviction, because no one else had that opinion, or because they felt their opinion did not matter). Therefore, it is not clear whether the public participation efforts actually stay at a level of sharing information, or if it goes beyond this level.

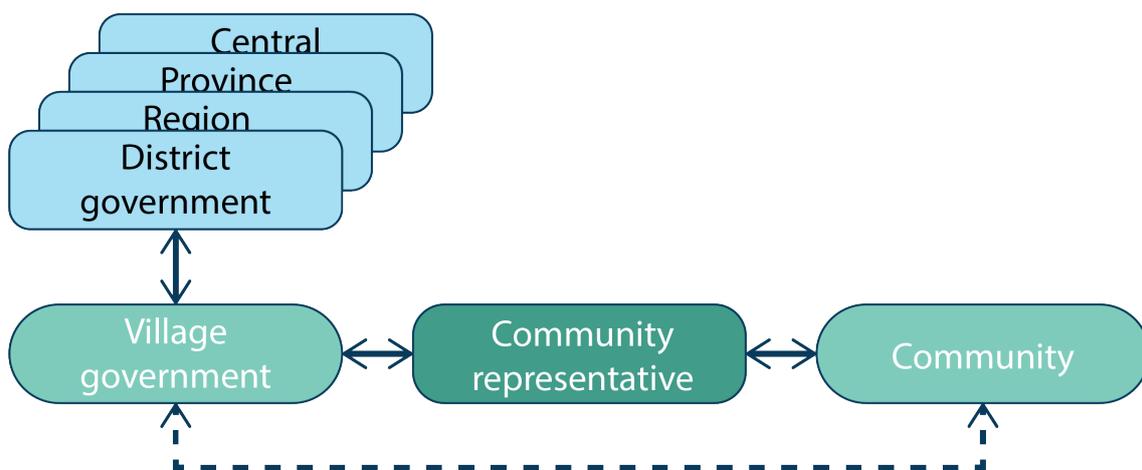


Fig. 4.8. As discussed in section 3.1, there are 5 official levels of government in Indonesia. The village government is the lowest level of these official levels, and they are in contact with the other levels. Community members elect a community representative every couple of years, and this representative acts as a bridge between the village government and the community itself, where communication goes both ways. Whenever the village government wants to implement a plan, and the community resists, they will discuss this with the community directly and make changes where necessary.

Next, public participation can also be initiated by the community themselves. Usually, the community representatives (RT & RW) have regular meetings with the community, and during these discussions community members can voice their opinions and needs. Whenever something is damaged, or whenever the community has certain needs, the community representatives will go to the village government to discuss their request and usually these requests are granted, unless they are not urgent or outside of the village government's jurisdiction. In latter case, the village government will discuss the requests with higher levels of governments, and will inform the communities of the progress. This means that the communities (or community representatives) cannot directly communicate with the higher levels of government, which indicates that there might be a lack of diversity and inclusion in these processes.

In Table 4.1, some of the projects that included public participation according to the experts and residents are elaborated upon. These examples show that most of the projects mentioned, were initiated by the community itself. In 3 out of the 4 examples, the government only provided funding. Nevertheless, these examples show that the village government does listen to requests from the communities and by remembering and giving these examples, the residents show that they appreciate the fact that they can ask the village government for help.

In the project initiated by the government (the road widening project), residents mentioned that they were informed about the project, but not all of them could provide details about the plans. This could mean several things, such as the information given by the village government being superficial, the community representatives of some communities not conveying all the information to the community representatives, or the residents having forgotten the information. On the other hand, some residents mentioned that they were informed rather well and that the village government had even organised some special meetings with the people whose house had to be moved in order to give them the opportunity to voice their needs and opinions. This difference in the amount of knowledge residents have about governmental projects, could be

an indication that there might be a lack of information/understanding due to the current system, where it depends on the community representative how much information is shared with the community.

Residents' experience with public participation

When asked about their experiences with public participation, most residents interviewed were positive about their influence in governmental projects with regards to flood management and spatial planning in general. One resident noticed that there was a clear improvement with regards to public participation in the past years, stating that in the past, citizens were not involved during projects at all, but that he feels it is getting better now.

However, many residents mentioned that even though they like being able to voice their opinions and needs to the government indirectly via their community representative, they would rather have some form of direct participation. According to residents from the Caturtunggal area, the last time they were able to directly voice their opinions and concerns to the government was after the 2010 flood event. Since then, most of the communication between the community and the government is done through the community representatives. Other residents from both Caturtunggal and Sinduadi added to this that the village government sometimes comes to the community and inspects the structural measures, but that they do not talk to the local residents during those visits.

Another finding was the fact that men seem to be more involved in participation than women. This was suggested by some of the residents from Terban, where one female resident mentioned that she has not been involved in any of the discussions with either the government or the community representatives, but that her husband might be more involved, as its mainly the men of the community that are included in the public participation processes. Additionally, some other female residents from the same region mentioned that it is mainly the community representatives, who are always men, that were involved in the decision-making process. Together, these claims could be

Table 4.1. Examples of public participation processes mentioned in the interviews.

Initiator	Project	Process	Outcome
Community	Dyke improvements (Terban)	After the Merapi flood, the community started to strengthen some of the dykes. The community representative asked the village government for help.	The village government provided funds and the implementation was done by the community itself.
Community	Higher bridge (Terban)	After the Merapi flood, the community wanted to local bridge to be raised due to trash getting stuck. The community representative asked the village government for help.	The village government paid for the project and arranged the implementation. It took 1 year.
Village government	Road widening (all areas)	The village government informed the local communities about the plans to make the road along the river wider for better access and safety.	The village government arranged the funding and implementation of the road, and citizens who had to make their house smaller got some funding to do so. However, this funding was often not enough. Additionally, some residents were not informed about the details of the project, which could also be due to having a different community representative conveying the information. Some residents, on the other hand, mentioned that the government organised special information meetings for those who were affected by the plan.
Community	Dyke improvements (Caturtunggal)	After the Merapi flood, the community wanted the municipality to strengthen some of the dykes, and the community representative asked the village government. In this case, the village government did not have the authority to approve the plans and had to ask higher levels of government.	Village government improved the dykes on the hill in the area to prevent landslides, but residents are still waiting for the national government to improve the river dykes.
Community	River cleaning program (Sinduadi)	After the Merapi flood, the community wanted to clean the river and the community representative went to the village government for help.	Initially, the village government provided financial aid for the cleaning program and the community did the cleaning themselves. However, after some time the community started paying themselves.

seen as a 'lack of diversity and inclusion' barrier in the public participation process.

The residents had mixed opinions on the best way for the government to reach out to the community during public participation projects. Whereas some residents think that its best for the government to discuss plans just with the community representatives, others would like the government to come straight to the community, even though this might take more time. Some residents said that this could for example be during their monthly community meetings. However, this might not always mean more participation and inclusion: residents from Terban, for example, mentioned that even though they have the opportunity to join community meetings and meetings with the government, they almost never voice their opinion. One of the residents said his reason for this was "because no one else has voiced that opinion yet", whereas another resident said that he was afraid that the government would see him as a nuisance and evict him from his house. Both of these reasons could indi-

cate a 'lack of trust' barrier in the public participation process, as some community members, apparently, do not have enough trust in their community and in the government to voice their concerns because they are afraid of the consequences.

Experts' experience with public participation

According to Pak T, who is the leader of a community empowerment group, the role of citizen in public participation processes in Indonesia has changed drastically since 1998, due to the decentralization of the government and the involvement of institutions such as universities and NGOs, who helped citizens with voicing their concerns. Whereas before 1998, public participation only meant informing the people without them being able to voice their opinions, now it actually means to include the people.

In general, all the experts that were interviewed had a similar view on the meaning of public parti-

cipation, as they all included similar elements in their definition, such as: 'listening to the needs of citizens', 'informing the public', 'discuss the issue and possible solutions with all those involved', and 'including citizens in the decision-making process'. Nevertheless, only one of the experts, Pak T, stated specifically that this inclusion of citizens and other relevant stakeholders should be done from the start of a project, whereas other experts were mainly focusing on generally including citizens at one point in the process, and this point could differ between different projects. This, in turn, could potentially affect the amount of influence stakeholders have on the decision-making process, thus suggesting that there could be a 'lack of influence' barrier in the public participation processes. Based on the responses from residents, from which some stated that they would prefer direct communication with the village government during the decision-making process of new plans instead of getting information from their community representative, there is also a desire from them to be included from the start of the project.

Pak N, who is the secretary of one of the village governments in the research area, for example, stated that his village government mainly focuses on casual talks on the street between his village leader and residents and mentions that it is required for new projects to include at least 20% local labourers, who will also be included in the decision-making process during the implementation phase. Pak H, who is the leader of one of the other villages in the research area, explained that projects in his village are usually worked out by the village government and other governmental institutions, after which they are discussed with the community representatives so the communities can be informed. Additionally, the village government often invites the communities to participate in the decision-making process of projects through 'Sambung rasa', which means that they discuss each other's feelings and opinions. Pak H mentioned the village government has also made it possible for citizens to organise bottom-up projects, and come to the village government for help: if the project is "easy and within the jurisdiction of the village government", the village government will act as soon as possible, but if

the project is costly and outside their jurisdiction, the village government will contact other governmental institutions first. This two-way communication creates a lot of trust and understanding according to Pak H.

The experts stated that using public participation during projects had a lot of benefits for both the local governments and the citizens in the area. First of all, it gave governmental institutions the possibility to educate citizens with regards to the problems at hand and measures they could take themselves, thus stimulating community resilience. Additionally, using public participation made it easier for the government to gather local knowledge from citizens who have lived in the area for years. This local knowledge, and the fact that projects required local labourers during the implementation, made it easier for the government to implement projects.

4.5 Barriers in public participation

During the interviews with both experts and residents, it became clear that there are multiple institutional and individual barriers for public participation processes that can be identified in the research area.

Institutional barriers

With regards to institutional barriers, experts and residents gave examples for both the 'lack of diversity and inclusion' and the 'lack of influence' barriers. First of all, during public participation processes often only the community representatives are invited to participate in the decision-making process. Even though residents and other stakeholders have the possibility to convey their needs and opinions to these representatives through community meetings, some of the interviewees noted that this does not give them the desired amount of inclusion in the process.

This view was especially strong among women, who sometimes felt that there was a gap in the inclusion of women in the participation process compared to men. Not only is this caused by the fact that community representatives are always men, but also due to the fact that if women are included in a project,

it is often only as providers of food during the implementation part of the process. Additionally, according to Bu A, who is one of the board members for one of the women empowerment groups in Yogyakarta, women are not always supported by their husbands when they want to voice their opinion.

Lastly, with regards to the 'lack of influence' barrier, Pak B mentioned that not all community representatives are motivated to speak for their community members, as some of them are 'forced' by the community to take on that role. During public participation processes, it is often only the motivated community representatives who have a voice during the decision-making process, thus leaving the needs and opinions of certain communities unspoken. Additionally, some citizens and community representatives are critical towards the government because they feel that even if they are included in the process, their opinions are not always heard.

Individual barriers

There are also individual barriers that can be identified in the research area, specifically 'time, costs, and effort', 'lack of trust', 'lack of information/understanding', 'complicated process', and 'feeling of helplessness'. First of all, some experts mentioned that it can be difficult to find people who are willing to participate during public participation processes. Pak H, for example, mentioned that people sometimes are busy with their daily lives and do not have enough time to participate. This reason was also given by Pak T and Bu A, of which the latter mentioned that some people have to work 17 hours a day to provide for their families and, therefore, cannot participate. Another reason is the fact that people sometimes expect a monetary compensation to participate, due to them being given this in previous projects, and they do not want to participate without this compensation.

“often mainly the community representatives and other governmental institutions that are invited to join the public participation process. Additionally, not everyone always wants to join due to them being busy with their daily lives and do not have enough time, which leads to a lack of inclusion during the projects.

In order to tackle this, the government decided to give 50.000 rupiah (approx. €3.20) to the people that participated, and this increased the amount of people that joined.” – Pak H.

Pak N added to this that some people do not know that they can participate. As stated in section 4.4, Pak N described that public participation meetings are open for everyone, but that the communities often only send their community representatives. Therefore, it could be beneficial to inform communities of their ability to join these meetings themselves.

The lack of trust in governmental institutions did also turn out to be a barrier for people to participate. One of the residents mentioned that he does not want to voice his opinion, due to being afraid of being evicted from his home by authorities. Pak T mentioned that some residents have a lack of trust in the reigning governmental parties, and Bu A stated that confusion caused by the fact that different staff members of the same governmental institution give different advices/orders could reduce this trust even more, thus resulting in residents withholding from participating:

“Sometimes the government has different opinions within the same building. Citizens, for example, go to the Pak Lurah [village head], who approves their plans, and then they go to the staff, and they deny their plans.” – Bu A.

Another barrier was caused by the low levels of education among residents in the community, according to experts. Pak B, for example, mentioned that even though the communities are aware of many of the issues present in their area, there are still some issues, such as proper waste disposal, where there is a lack of understanding among residents and other stakeholders alike. This issue could also be noticed in the area itself, as even though there was a river waste collection programme set up by at least one of the communities, the disposal of this waste was done on a slope next to the river, where it could easily fall back in the river during high water level events (see Figure 4.7). According to some of the experts (Pak B, Bu A, and Pak N), this lack of understanding with regards

to some of the issues at hand could prevent residents from being able to fully participate during public participation processes, as they do, for example, not see the necessity or the benefits.

The low levels of education also prevents people from understanding the process of public participation processes. Pak N mentioned that during these meetings, technical language is used occasionally, preventing people from fully grasping the issues that are being talked about. Even though there are some measures being taken by the governmental institutions, such as a transcription of the meeting that is more easy to understand in order to help educate or inform the residents, Pak T stated that he thinks the complicated nature of these processes is withholding people from participating, and that other methods of engaging the public are necessary to stimulate people to participate.

“The government tries to transcribe the meetings using understandable language and they discuss this with the community representatives, who can then inform the communities. By using this method, the government tries to educate people so they eventually have a better understanding of the issue. In the case of the road widening project, Pak N mentioned that it took a significant amount of time to educate the communities, but eventually they understood the problem and accepted the changes.” – Pak N.

Lastly, due to their experiences with flooding and the (sometimes) complicated bureaucratic processes with regards to flood management (flood management is still not fully decentralised in Indonesia), some residents mentioned that they had a feeling of helplessness which prevented them from believing in governmental measures, thus taking matters into their own hands. Even though this practice of ‘gotong royong’ could help with improving the community resilience in some areas, it could prevent them from engaging in public participation processes.

4.6 Views on creative and arts-based methods

During the interviews with the experts, I asked them about their views on the use of CABM in public participation processes in Yogyakarta in order to overcome the barriers that they had identified in previous projects. They were given a short explanation of the method, including two examples of previous cases in the Netherlands (see appendix B). This section will summarise the previous experiences with CABM, positive and negative aspects of the method, and additional remarks, based on the interviews with the 5 experts.

Experience with CABM

Even though CABM have not been officially documented in Yogyakarta, there have been various uses of these methods in public participation processes related to the Code river area. Both Pak N and Pak B, for example, mentioned that they recently tried a pilot project involving the use of interactive maps, which can be grouped under ‘visual art’ according to Blomkamp (2018). During these sessions, residents were able to identify important areas for them and also explain why these areas were important for them, giving the researchers the ability to get a better understanding with regards to the local narratives. Additionally, the maps were used to provide the residents with information regarding the cause of the issue at hand and show possible solutions.

Pak T and Bu A stated that they have been using these methods for a number of projects through their empowerment groups, where they for example used comics, videos, and festivals to raise awareness for certain issues in their communities and to educate both the community members and governmental officials about these issues and possible solutions. Something that became apparent from walking through the area, and was also mentioned by Pak N, Pak B, and Bu A, was the use of mural paintings by residents to both educate their community members and to voice their opinions, needs, and local identity. This shows that art is already being used by local communities to express

themselves, meaning that CABM could give them a platform to also express themselves more clearly during public participation processes.

Positive aspects

Based on the explanation of the use of CABM and their own experiences, the experts thought using these methods could have a significant number of positive aspects and benefits that would make the public participation process more effective, accessible, and attractive to a more diverse range of stakeholders. Pak H, who did not have any prior experiences with CABM, thought it could help with bringing people together and getting everyone more involved with their local environment. Additionally, he mentioned that it could bring out curiosity and stimulate discussions between stakeholders.

Pak T had a positive outlook on the use of arts during participation processes, as “art does not see your background” and stated that he thinks CABM is an easier way to communicate and to share opinions and needs. He thinks this is because CABM is “simply more fun” and could, therefore, reduce tensions between the government and the communities. Additionally, due to the fact that CABM could be perceived as more fun, it can engage more citizens during public participation processes compared to conventional public participation processes.

Both Pak B and Bu A stated that they thought the use of CABM during projects helped both residents and other stakeholders (such as governmental officials) with getting a better understanding of the local conditions, and that it gave the community a chance to show that they have needs and opinions they want to be heard by the local government.

Negative aspects

However, some of the experts also voiced some concerns with regards to the use of CABM. Pak N, for example, mentioned that art can be abstract and can be interpreted differently by different people (where some people will not even see meaning at all). In order to prevent people from getting a false sense of un-

derstanding, it will, therefore, be necessary to design the process together with the community, so everyone will understand the purpose of using art.

With regards to possible use in future projects, Bu A stated that she noticed that CABM were relatively time and energy consuming compared to conventional public participation methods when she organised it with her women empowerment group, and that it could, therefore, be beneficial to organize these processes with the help of other organisations, such as the local government or other NGOs. Pak H mentioned that he did not see his governmental institution implementing these methods in the foreseeable future, but that he would be interested to see NGOs or other groups use these methods during public participation processes, in order to identify the effects, and then decide whether they want to use it as well.

Important considerations

Lastly, some of the experts came up with some important considerations for using CABM in general. First of all, Pak N stated that before using this method, research has to be done together with local stakeholders in order to understand:

- What kind of art or creative method will be used?
- What kind of art or creative method is understandable for all stakeholders?
- Who has to be included in the participation process?
- Who has to be represented in the participation process?
- Who is the target audience for the art or creative outcome?

Pak T and Pak H also mentioned that certain kind of creative or arts-based methods could attract people from outside the area to also give their opinion. However, whereas Pak T thinks this could be beneficial, as it means these methods stimulate more people to engage in the participation process, Pak H mentions that this involvement has to be carefully taken into consideration, thus coming back to the remarks of Pak N of carefully researching who has to be included

in the participation process before using CABM.

Lastly, Pak B thinks that visualization in general, and not just CABM, can be a very useful tool during public participation processes, due to its ability to give stakeholders a better understanding. He thinks that using visual art on social media, for example, could help with increasing the amount and range of people that participate. Nevertheless, despite of the visual aspect, he thought that due to its benefits, CABM in general will be used more frequently in future projects in Yogyakarta and other places in Indonesia.

5. Discussion and conclusion

5.1 Discussion of the results

Place attachment

During the interviews, it became evident that most residents have a strong connection to their living environment. When asked why they felt attached to this place, they often opened up about memories they had of growing up in the area and/or their children growing up in the area and about getting together with other community members during, for example, community meetings, (religious) events, and 'gotong royong'.

This finding, therefore, suggests that there is a strong place attachment among residents of the research area, as place attachment was defined as "*positively experienced bonds, sometimes occurring without awareness, that are developed over time from the behavioural, affective, and cognitive ties between individuals and/or groups and their sociophysical environment*" (Brown & Perkins, 1992, p.284, as cited by Van der Vaart et al., 2018b) in chapter 2. Because of this strong place attachment among residents, the literature suggests that spatial projects that entail place change should carefully engage residents in the decision-making process through public participation, in order to prevent a disruption of the local community and to stimulate a positive 'perceived place change' (Devine-Wright, 2011; Van der Vaart et al., 2018b, see the conceptual framework in section 2.4).

Experience with public participation

With regards to public participation, both residents and experts emphasized that there was a significant increase of public participation in the past two decades. Some of the residents mentioned that this became more noticeable after the 2010 Merapi flooding, as the village governments and the Merapi authority started to include the local communities in the decision-making process. This is an interesting finding, because

this could help explain the discrepancy with regards to public participation between Heryanti (2012) and Yulianti (2021): where Heryanti, who did her research just after the flooding, found that residents had the feeling that their experiences were not being heard by the local governments, Yulianti, who did her research a decade after the flooding, found that the residents noticed that the government had tried to include them in the decision-making process.

However, when using the literature to reflect on the way public participation is practiced in the research area, there are some interesting findings. In order to reach the main goals of public participation, which are the improvement of the quality and effectiveness of the decision-making process, increasing the legitimacy of those processes, and creating a more socially just outcome, according to Dietz & Stern (2008), Fung (2015) argued that there is a need for direct inclusion of citizens in the decision-making process. Even though residents from the research area are currently included in the decision-making process, these residents often only consist of (motivated) community representatives (Pak RT & Pak RW). Additionally, despite some of the experts stating that village government employees do visit the area and talk to the residents directly in order to discuss their opinions and needs, residents that were interviewed mentioned that higher levels of government (who, for example, are in charge of flood security) hardly visit the area, and that when they do, they do not talk with the community.

These findings could suggest that there is a lack of direct involvement during public participation in the research area and that there are no participatory activities beyond simply informing the stakeholders, which could in turn affect the effectiveness of these processes and have a negative effect on the 'perceived place change' during projects, as described by Van der Vaart et al. (2018b). This finding is supported by Bu A, who emphasized the importance of this direct

importance and mentioned that she is actively promoting this among her community members. When asked, some of the residents (that were not community representatives) mentioned that they would like to be given the chance to voice their opinions and needs directly to the government, showing that the motivation for more direct inclusion and participation that goes beyond the level of simply informing is present among the residents.

Nevertheless, there are also signs that in some cases there already is direct public participation that goes beyond a level of just informing: both residents and experts mentioned that whenever either the village government or the community wants to set up a new project, they discuss this first with the other party, making changes if necessary to come to a consensus. Pak H named this process ‘sambung rasa’, which means discussing each other’s feelings and opinions. However, based on the interviews with both residents and experts, it is not clear whether this process of direct participation is a frequent occurrence. The only example given by residents where direct participation was used, was during the road widening project, where residents that had to move a part of their house, or even had to be evicted, were invited to discuss their needs and opinions with the village government in order to provide them the means necessary to implement these changes.

Barriers in public participation

As discussed in chapter 4, most of the barriers that have been identified in the literature framework were also found in the research area, except for the institutional *time, costs, and effort barrier*. There is a possibility, however, that this barrier is existing but was not brought up by the experts, given that it can be quite a sensitive topic.

When comparing the barriers found during this research with barriers found in prior research by Heryanti (2012) and Yulianti (2021), there are many similarities, such as the fact that some of the local communities had a *lack of trust* in the governmental institutions, there was a *lack of inclusion/diversity* (even though this has already improved since Heryanti’s research), the individual *time, costs, and*

effort barrier, the low level of education causing a *lack of information/understanding* and the *complicated process barrier*, and lastly, the *feeling of helplessness*.

In their research, Yulianti (2021) stated that the local government had used facilitators during the public participation process to make the process and the information given during the processes more easy to understand. This finding was also emphasized by some of the experts that were interviewed for my research, and would, thus, suggest that the local government is aware of some of the barriers that exist with regards to public participation processes and tries to overcome these. However, neither the facilitators, or any of the other measures (e.g. an easy version of the transcript of information meetings), was named by the residents interviewed in this research. This could suggest that these governmental measures have not been noticed by the residents, but it could also be caused by the limited sample size of my empirical research. Nevertheless, it is interesting to see that the local government is already experimenting with ways to overcome the barriers of conventional public participation processes.

The use of creative and arts-based methods

First of all, many of the benefits of CABM that have been identified in the literature, such as improving inclusiveness, improving accessibility, fostering dialogue & discussions, stimulating emotions & involvement and generating creative solutions, were also identified by experts when asked about their experiences and thoughts with regards to CABM. Simultaneously, some of the challenges that were identified in the literature, such as the amount of time and energy CABM would consume and the fact that it could be hard to find enough participants, were also named by the experts.

Additionally, some of the experts suggested that due to art often being abstract, it could give a false sense of understanding due to the meaning being interpreted differently by different stakeholders. This could eventually lead to one of the concerns of Stuijver et al. (2012), as misinterpretation, or purposefully giving another meaning to the art used, could lead to that art being used as a platform to protest against

plans from the government. This in itself does not have to be a problem, however, it could prevent local governments from using CABM in future projects.

Nevertheless, all experts were mainly positive about the use of CABM in public participation, and stated that as long as certain conditions were met, CABM could potentially help with increasing the influence and diversity of stakeholders during decision-making processes, and that due to its benefits, CABM will be used more frequently in future projects in Yogyakarta and other places in Indonesia.

5.2 Conclusion

For this study, I have conducted both a literature research and an empirical research, through which I have collected data to identify existing barriers in conventional public participation processes and to create an overview of potential benefits of CABM and how these can help with overcoming the barriers of conventional public participation processes. By combining the answers of my four sub-questions, I will answer the main research question of this research.

1. *What are barriers that prevent public participation processes from being successful?*

As discussed in chapter 2, certain challenges and barriers can be found in both the literature and in practice that withhold public participation from being effective in reaching its goals of improving the quality and effectiveness of decision-making processes, increasing the legitimacy of those processes, and improving social justice within those processes (Dietz & Stern, 2008).

Based on literature from Brink & Wamsler (2017), Dietz & Stern (2008), Fung (2015), Hügel & Davies (2020), Lane (2005), Nita et al. (2018), Wehn et al. (2015), and Zuhair & Kurian (2016), among others, I found that there are two types of categories of barriers with regards to public participation, where the first category consists of institutional barriers, which withhold institutions from using public participation in a more extensive and effective way, and the second category consists of individual barriers, which withhold stakeholders from participating in public

participation processes.

With regards to institutional barriers (see Table 2.1), the most prominent ones found in the literature were “time, costs, and effort”, “lack of diversity and inclusion”, and “lack of influence”. For individual barriers (see Table 2.2), the literature suggested the existence of barriers such as “time, costs, and effort”, “lack of trust”, “lack of information/understanding”, “complicated process”, and “feeling of helplessness”.

2. *What are the benefits of creative and arts-based methods in comparison to conventional public participation methods?*

Compared to conventional public participation processes, both literature and practice have shown that CABM can help with creating a better understanding of the local narratives and create an environment where people can openly discuss these narratives. Some of the most important benefits of CABM (see Table 2.3) that can help with overcoming the barriers of conventional public participation processes are “improve inclusiveness”, “improve accessibility”, “foster dialogue & discussions”, “stimulate emotions & involvement”, “imagine future scenarios”, “generate creative solutions”, and “strengthen community”.

However, both the literature and examples from practice show that CABM have their own set of challenges that have to be taken into account when applying these methods. The most important challenges are the fact that CABM can be more complex to apply than conventional public participation methods and people who work with these methods will be required to have the disciplinary knowledge and skills to properly work with these methods. Next, CABM can be more time consuming than conventional public participation methods, and this might make stakeholders reluctant to participate. Lastly, Stuiver et al. (2012) warns that art can be used as a tool to engage and empower people, which could lead to CABM creating a platform for people to protest against the government, and that careful consideration should be given to the goal and the context of the processes in which CABM is used.

Nevertheless, CABM could make public participation processes more effective, efficient, and so-

cially just, and, thus, positively influence people's perceived place change during projects related to spatial planning.

3. *What is the current state of public participation with regards to flood risk management in the Code river basin area and what are the local barriers?*

Based on the interviews with both experts and residents, it seems that there is a participatory system in place in the research area, where the community representative is the bridge between the village government and the communities. Whenever the village government wants to implement a certain plan, they will inform the community representatives, who will then discuss these plans with the local communities. Additionally, whenever something is damaged, or whenever the community has certain needs, the community representatives will go to the village government to discuss their request.

With regards to the level of participation, experts mentioned that there are possibilities for the public to participate on higher levels than just informing. However, except for one example where affected citizens were able to directly discuss their opinions and needs with the government directly (see Table 4.1), there were few signs that public participation processes in the research area have gone beyond simply informing.

Based on the interviews, it is apparent that almost all of the barriers related to public participation found in the literature were also present in the research area. Only the institutional barrier of "time, costs, and effort barrier was not explicitly found in the research area, but, as mentioned in section 5.1, this could be due to the fact that it can be a sensitive topic and due to the sample size being rather small.

4. *To what extent can creative and arts-based methods help with overcoming barriers of public participation processes in the field of flood risk management in the Code river basin area in Yogyakarta, Indonesia?*

Given that most of the barriers related to public par-

ticipation found in the literature, were also present in the research area, the findings from this study, especially with regards to the benefits of CABM and their ability to overcome the barriers of conventional public participation methods, would suggest that CABM could make public participation processes in Yogyakarta more effective in reaching their goal of improving the quality and effectiveness of decision-making processes, increasing the legitimacy of those processes, and improving social justice within those processes (Dietz & Stern, 2008).

Despite having some concerns, all of the experts I interviewed for this study were positive about the benefits of using CABM. As mentioned in section 4.6 and 5.1, some of the experts had already used a variety of methods that could be seen as CABM, such as visual art, performing art, and literary art. Based on these experiences, the experts thought CABM could help with making public participation processes in Yogyakarta more effective, accessible, and attractive to a more diverse range of stakeholders.

Thus, as long as certain conditions are met, CABM could potentially help with increasing the influence and diversity of stakeholders during decision-making processes, and experts would be willing to use CABM more frequently in future projects in Yogyakarta and other places in Indonesia.

To what extent could creative and arts-based methods help with overcoming barriers of conventional public participation processes?

Based on the comprehensive analysis of both the literature and empirical findings of this study, I hypothesize that CABM has an immense potential in overcoming the barriers of conventional public participation processes. This study has highlighted that whereas conventional public participation processes usually only limit the level of engagement to informing, CABM gives planners the opportunity to include the multitude of local narratives into the decision-making processes. By including these local narratives, the whole public participation process can be better tailored to local contexts, which, according to Fung (2015), would improve the efficacy, the efficiency, and the social equity of these processes, thus fulfilling the

goals of public participation and the principles of good governance.

Furthermore, the theoretical findings from this study highlight the ability of CABM to create inclusive spaces where stakeholders feel safe and can freely express their needs and opinions. By using art during these processes, participants are offered a different 'language' for communication, which is first of all more inclusive, and secondly stimulates more creative thinking. This both improves the quality of the discussions and gives participants a sense of ownership and belonging within the community.

In conclusion, the findings from this study show that the inclusion of CABM could help with lifting public participation processes to a new level of engagement, where the barriers of conventional public participation processes could be significantly reduced. By harnessing this potential of creative and arts-based methods, organisers of public participation processes can give stakeholders a platform where they can freely share their ideas in a creative way that improves the inclusiveness and accessibility, fosters discussions and involvement, generates creative solutions through the imagining of future scenarios, and strengthens communities as a whole, which is in line with the principles of good governance.

6. Reflection and recommendations

In this final chapter, I will reflect on my own process during the literature and empirical research, including suggestions for future research. Additionally, recommendations will be given for future research on the topic of CABM and opportunities will be presented for Yogyakarta on how to implement CABM with regards to overcoming the barriers of conventional participation methods.

6.1 Reflecting on the process

During both the literature research and the empirical research I have encountered certain barriers myself and made choices that could have affected the process. In this section, I will reflect on the literature research and the empirical research.

Literature research

First of all, for the development of my literature framework, I have only used English sources which resulted in the fact that there was only a limited amount of sources that could be used to describe the situation in Yogyakarta (due to most literature about Indonesia being in Indonesian). However, throughout this study, I was still able to find sufficient amount of English literature that was focused on developing countries and Indonesia itself to, in my point of view, make valid claims about the situation in Indonesia with regards to flooding, public participation, and barriers in public participation. Nevertheless, I would suggest to also include Indonesian literature in future research on the topic of CABM in Indonesia to get a more in-depth understanding of the area and the local conditions.

Next, for this literature research I have only used Google Scholar. Only after I had already finished the literature framework, I realized that I could also have used Scopus and Web of Science to get a broader and maybe more credible pool of articles. However, I think that the current articles give a clear overview of the current state of affairs with regards to public parti-

cipation, the barriers, and the use of CABM, given the explorative nature of this study.

Empirical research

Due to this research being an explorative research, the outputs, and answers to my research question, are hypotheses on the potential use of CABM to overcome the barriers of public participation. Therefore, I cannot make any statements on the actual effects of these methods in the local context. Nevertheless, the findings from this study suggest that there is a significant potential for these methods, and based on prior experiences from experts with CABM, I think there is evidence that CABM would be beneficial in the context of Yogyakarta.

Even though the empirical part of this research has focused on a part of the Code river area in Yogyakarta, Indonesia, these outcomes do not only give an indicator of the potential use and effectiveness for CABM in Yogyakarta, but also for similar cases in Indonesia. Additionally, whereas this research has focused on a case where flood risk management is central, due to inherent high probability of place change, these hypotheses could possibly be transferred to other fields of spatial planning, as has been shown in prior cases that were discussed in the literature framework (chapter 2).

Throughout the empirical research, I encountered some interesting roadblocks and barriers that I had to overcome in order to successfully conduct the interviews. First of all, I only had a limited time in Indonesia, and whereas I had initially planned to only stay for one month, I decided to extend my stay to two months in order to get the necessary amount of interviews. I had not taken into consideration the amount of time it would take to get the necessary permits to conduct the interviews, and this proved to take longer than expected. Nevertheless, I was able to conduct all of the interviews that I had planned.

As described in chapter 3, the language barrier also proved difficult for conducting the interviews.

However, I was able to find a classmate from Indonesia with a background in geography and urban planning, who was willing to act as translator during the interviews, and this helped me not only with translating the interviews, but also with gaining the trust of the citizens, who seemed relaxed and at ease during the interviews and shared some rather personal stories with us. Despite this, due to the interviews being conducted in Indonesian, I was only able to transcribe semi-detailed summaries of the interviews, and certain details and quotes could have gotten lost in translation. The translator and I tried to tackle this by carefully discussing the answers that were given throughout the interviews, and transcribing these answers immediately after the interviews.

Even though interviews were conducted with randomly selected residents who were available at the time that we were in the area, we tried to get a sample of residents that varied in age, gender, and employment, by going to the area just before sunset, as we hoped more people would be home from work. In total 9 male residents and 8 female residents were interviewed, with ages varying between 30 and 70 and employment varying from housewife to constructor and food vendor. However, during some of the interviews where both a man and a woman were present, it was often the men that took the lead, with the women only adding some information when directly asked. Therefore, I would suggest future researchers to interview people, especially couples, separately.

The research area was chosen based on available flood risk and flood vulnerability data from the Faculty of Engineering at the Gadjah Mada University. However, during the interviews it became clear that the area does not frequently experience flood events and is relatively 'safe' due to the riverbanks being 3-3.5 meters above the river level. Residents mentioned that areas along the river that were further down South were not as high above the river level, and experienced flood events more frequently, especially during the rainy season. According to one of the residents, in some areas further downstream, the water can even reach a height of 1 meter in the houses along the Code river.

6.2 Recommendations

For future research regarding flood management in Yogyakarta, it might be interesting to see how the local communities and the local governments deal with flood management in the areas in the South that do experience flooding frequently, and to what extent public participation is used there, given that Syukril (2011) argued that in Indonesia, many flood management related projects still use a top-down approach where public participation is still lacking, given that this is managed by a national governmental institution.

With the empirical part of this study, I have tried to contribute to the gap in the literature regarding the use of CABM outside of Europe. However, due to the explorative nature of this research, and the fact that only one case study was chosen, this study could only (but hopefully) act as a catalyst for future research with regards to the use of CABM outside of Europe. I would like to suggest other researchers to study the effects of CABM in other regions, given that the findings of this study (and similar studies) show that CABM could potentially be beneficial in many different contexts.

With regards recommendations for Yogyakarta planning experts and researchers, I would like to advise them to conduct CABM pilot projects, by including local artists from Yogyakarta and local NGOs or community empowerment groups. Even though one of the two experts who were active within a village government had some experience with CABM, both had concerns with regards to wider implementation. However, they were open for hosting pilot projects in their area, as long as they were led by an NGO.

Simultaneously, both the experts who were active in community empowerment groups had experience with CABM, and they were rather positive about the outcomes and its use, and were planning to use these methods in future projects as well. Additionally, the expert who was active in academia had discussed my research with some of the local artists in Yogyakarta, and these were positive about the idea of using art during public participation processes. Therefore, it could be interesting to set up a pilot project including a researcher, a community empowerment

group, and local artists, in order to document the effects. If the outcome would be positive, this could be used to convince local governments to use CABM as well during public participation processes, and this could potentially help with making public participation processes more inclusive, more diverse, and more effective.

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Appendix A – Citizen interview guide



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Interview Guide residents of the Code River

Personal questions

1. What is your occupation?
2. How long have you lived here?
3. Do you like living here and what do you like about it?
4. Are you close with your neighbours or other people in your community?

Official questions

1. Does living along the Code river influence your daily life?
2. Have you ever experienced any flooding, or do you know of people in your community that have experienced flooding?
 - a. **If yes:** Could you tell me more about the location of the flooding and the experience you had?
3. Have there been any big changes to the neighbourhood during the time that you have lived here in order to prevent flooding?
 - a. **If yes:** Who was responsible for making these changes and what did these changes involve?
 - b. Do you have the time to show me these changes?
4. Did you get the chance to voice your opinions about those changes before they happened?
 - a. **If yes:** Do you feel that your opinion was heard by the people in charge and why do you think that?
 - b. **If no:** Would you want to voice your opinion if the city is planning to make any changes in your neighbourhood?
 - i. **If yes:** What would be the best way for people to approach you so you can give your opinion?
 - ii. **If no:** What are the reasons that make you not want to give your opinion?
5. Do you know of any projects or changes that will be made to this area in the foreseeable future with regards to the Code river?
6. Is there anything you would like to add after talking about this topic?



Panduan Wawancara warga Kali Code

Pertanyaan pribadi

1. Apa pekerjaan anda?
2. Berapa lama anda tinggal disini?
3. Apakah Anda senang tinggal di sini dan apa yang Anda sukai darinya?
4. Apakah Anda dekat dengan tetangga atau orang lain di komunitas Anda?

Pertanyaan resmi

1. Apakah tinggal di sepanjang aliran sungai Code mempengaruhi kehidupan anda sehari-hari?
2. Apakah Anda pernah mengalami banjir, atau apakah Anda mengetahui ada orang di lingkungan Anda yang pernah mengalami banjir?
 - a. **Jika ya:** Bisakah Anda ceritakan lebih banyak tentang lokasi banjir dan pengalaman Anda?
3. Apakah ada perubahan besar di lingkungan sekitar selama Anda tinggal di sini untuk mencegah banjir?
 - a. **Jika ya:** Siapa yang bertanggung jawab melakukan perubahan ini dan apa saja yang tercakup dalam perubahan tersebut?
 - b. Apakah Anda punya waktu untuk menunjukkan perubahan ini kepada saya?
4. Apakah Anda mendapat kesempatan untuk menyuarakan pendapat Anda tentang perubahan tersebut sebelum terjadi?
 - a. **Jika ya:** Apakah Anda merasa bahwa pendapat Anda didengar oleh pihak berwenang jawab dan mengapa Anda berpendapat demikian?
 - b. **Jika tidak:** Apakah Anda ingin menyampaikan pendapat Anda jika pemerintah kota berencana melakukan perubahan di lingkungan Anda?
 - i. **Jika ya:** Apa cara terbaik bagi orang lain untuk mendekati Anda agar Anda dapat memberikan pendapat?
 - ii. **Jika tidak:** Apa alasan yang membuat Anda tidak mau memberikan pendapat?
5. Apakah Anda mengetahui adanya proyek atau perubahan yang akan dilakukan pada wilayah ini di masa mendatang sehubungan dengan sungai Code?
6. Apakah ada yang ingin Anda tambahkan setelah membicarakan topik ini?

Appendix B – In situ interview guide



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Interview Guide experts Yogyakarta

Personal details:

- Name:
- Occupation:
- Years of experience:

Experience with public participation

1. Have you ever heard of public participation, and how would you describe it?
2. Have you ever been part of a public participation process, and what was your role?
 - a. **If yes:** Could you tell me more about one or two of these projects?
 - i. What was the role of participants during the project? (more to inform, or actually think along?)
 - ii. Was it hard to find people willing to participate in these projects?
 - iii. Could everyone participate, or was it mainly the representatives of the citizens?
 - iv. Were there any **barriers*** that you encountered when you tried to get people involved?

* **Barriers:** time, costs, effort; inclusion of everyone; lack of influence for citizens; lack of trust; lack of understanding; complicated process; feeling of helplessness/fear

- v. What were the positive aspects of the public participation process according to you?
- vi. Did you notice any tensions between you, in your role, and the stakeholders?
- vii. Did you get the idea that the public understood the problem at hand, and why do you think that is?
- viii. Have you have had any other observations during the process and do you think the process was a success?

- b. **If no:** Is there a reason you have never participated in such a process?

The use of creative and arts-based methods

[explain the use of creative and arts-based methods]

1. Have you ever tried to use creative and arts-based methods during one of your projects?
2. Do you see any positive aspects of using creative and arts-based methods in public participation processes?

3. Do you see any negative aspects of using creative and arts-based methods in public participation processes?
4. Do you think creative and arts-based methods can help with getting more and more diverse citizens involved in public participation processes?
5. Do you have any other thoughts on the use of creative and arts-based methods or related to this interview?

Explanation creative and arts-based methods

- At the moment, using creative and imaginative ways to fully engage stakeholders during public participation is being experimented with in the field of urban planning. Examples of these creative and arts-based methods are for example: **performance, writing, painting, photography, collage & installation art**. According to research, these creative methods can create a safe space for participants to express themselves and it can foster discussions, especially about sensitive topics, such as: **experiences, traumas, or depression**, and it can help with **expressing the community's identity**. It can be seen as a medium through which participants can exchange their thoughts and idea.
- **Example 1:** There were plans to make a windfarm next to a small village, and community perspective on this was mixed → **community engagement:** 1) walking tours/interviews in the area. 2) group discussions about areas of interest with pictures from the walking tour → **outcome:** gave a good overview of what the people valued in their area, what they wished to preserve. Also gave citizens a better understanding of the history and cultural significance of their area and the problem at hand.
- **Example 2:** There were big landscape changes in the surrounding area of a small rural village due to it being used for recreational purposes (instead of original agricultural function). Villagers were losing their sense of connection to the place, and the planners responsible for the changes could not connect to the local population. – **community engagement:** local theater group was asked to talk to all stakeholders (government, citizens, and planners) and make a theater piece about their stories and opinions. The theater group had complete freedom, and was not controlled by the government or planners. **Outcome:** All stakeholders understood each other's opinions and needs better, and it generated trust among the stakeholders.



Panduan Wawancara Pakar Yogyakarta

Data pribadi:

- Nama:
- Pekerjaan:
- Tahun-Tahun Pengalaman:

Pengalaman dengan partisipasi publik

1. Pernahkah Anda mendengar tentang partisipasi masyarakat, dan bagaimana Anda meng gambarkannya?
2. Apakah Anda pernah menjadi bagian dari proses partisipasi masyarakat, dan apa peran Anda?
 - a. **Jika ya:** Bisakah Anda ceritakan lebih banyak tentang satu atau dua proyek ini?
 - i. Apa peran peserta selama proyek berlangsung? (lebih banyak untuk diinformasikan, atau benar-benar dipikirkan?)
 - ii. Apakah sulit menemukan orang yang bersedia berpartisipasi dalam proyek-proyek ini?
 - iii. Bisakah semua orang berpartisipasi, atau hanya perwakilan warga negara?
 - iv. Apakah ada **hambatan*** yang Anda temui saat mencoba melibatkan orang lain?

* **Hambatan:** waktu, biaya, tenaga; keterlibatan semua orang; kurangnya pengaruh terhadap warga negara; kurangnya kepercayaan; kurangnya pemahaman; proses yang rumit; perasaan tidak berdaya/takut

- v. Apa saja aspek positif dari proses partisipasi masyarakat menurut Anda?
- vi. Apakah Anda melihat adanya ketegangan antara Anda, peran Anda, dan pemangku kepentingan?
- vii. Apakah Anda mendapat gambaran bahwa masyarakat memahami permasalahan yang ada, dan menurut Anda mengapa demikian?
- viii. Apakah Anda pernah melakukan pengamatan lain selama proses tersebut dan menurut Anda apakah prosesnya berhasil?

- b. **Jika tidak:** Apakah ada alasan Anda tidak pernah berpartisipasi dalam proses tersebut?

Penggunaan metode kreatif dan berbasis seni

[jelaskan penggunaan metode kreatif dan berbasis seni]

1. Pernahkah Anda mencoba menggunakan metode kreatif dan berbasis seni dalam salah satu proyek Anda?
2. Apakah Anda melihat adanya aspek positif dari penggunaan metode kreatif dan berbasis seni dalam proses partisipasi Masyarakat?

3. Apakah Anda melihat adanya aspek negatif dari penggunaan metode kreatif dan berbasis seni dalam proses partisipasi masyarakat?
4. Menurut Anda, apakah metode kreatif dan berbasis seni dapat membantu melibatkan lebih banyak warga negara yang beragam dalam proses partisipasi publik?
5. Apakah Anda mempunyai pemikiran lain mengenai penggunaan metode kreatif dan berbasis seni atau terkait dengan wawancara ini?

Penjelasan metode kreatif dan berbasis seni

- Saat ini, penggunaan cara-cara kreatif dan imajinatif untuk melibatkan pemangku kepentingan secara penuh dalam partisipasi masyarakat sedang dicoba di bidang perencanaan kota. Contoh metode kreatif dan berbasis seni tersebut misalnya: **seni pertunjukan, menulis, melukis, fotografi, seni kolase & instalasi**. Menurut penelitian, metode kreatif ini dapat menciptakan ruang yang aman bagi peserta untuk mengekspresikan diri dan dapat mendorong diskusi, terutama mengenai topik-topik sensitif, seperti: **pengalaman, trauma, atau depresi**, serta dapat membantu dalam **mengekspresikan identitas komunitas**. Hal ini dapat dilihat sebagai media di mana peserta dapat bertukar pikiran dan ide.
- **Contoh 1:** Ada rencana untuk membuat ladang angin di sebelah desa kecil, dan sudut pandang masyarakat mengenai hal ini beragam.
 - o **Keterlibatan masyarakat:** 1) tur jalan kaki/wawancara di daerah tersebut. 2) diskusi kelompok tentang bidang yang diminati dengan gambar dari tur jalan kaki.
 - o **Hasil:** memberikan gambaran yang baik tentang apa yang masyarakat hargai di daerah mereka, apa yang ingin mereka lestarikan. Juga memberi warga pemahaman yang lebih baik tentang sejarah dan signifikansi budaya daerah mereka serta masalah yang dihadapi.
- **Contoh 2:** Terjadi perubahan bentang alam besar-besaran di sekitar desa kecil karena lahan tersebut digunakan untuk tujuan rekreasi (bukan fungsi pertanian aslinya). Penduduk desa kehilangan rasa keterhubungannya dengan tempat tersebut, dan para perencana yang bertanggung jawab atas perubahan tersebut tidak dapat terhubung dengan penduduk setempat.
 - o **Keterlibatan masyarakat:** kelompok teater lokal diminta untuk berbicara dengan seluruh pemangku kepentingan (pemerintah, masyarakat, dan perencana) dan membuat karya teater tentang cerita dan pendapat mereka. Kelompok teater mempunyai kebebasan penuh, dan tidak dikendalikan oleh pemerintah atau perencana.
 - o **Hasil:** Semua pemangku kepentingan memahami pendapat dan kebutuhan satu sama lain dengan lebih baik, dan hal ini menghasilkan kepercayaan di antara para pemangku kepentingan.

Appendix C – Consent form

Consent Form

“The use of creative and arts-based methods to overcome the barriers in public participation.”

Interview Description

My name is Mitchell van Dijk, a student from the Netherlands. I am currently conducting research at Gadjah Mada University, in order to obtain a Master's degree in Regional and City Planning. For this research, I would like to know your opinions and needs are taken into account by the government when changes are made in and around the city, and especially along the Code River.

With your answers, I hope to understand the situation better and I will use this information to provide recommendations to local governments in Yogyakarta and the Netherlands. Your answers will only be used for this research and will be completely anonymous and kept confidential.

- This interview will be recorded to have accurate information of participant's views. Those who can access the tapes and/or the transcripts are only the interviewers and the two supervisors.
- Everything said by participant during the interview will be treated confidentially
- The participant can choose to stay anonymous; it means her/his name will not appear on the transcript or in any further publication.
- It is possible to add any supplementary information on the transcript which is obtained from correspondences between the participant and the interviewer via email or any other message facilities.

Participant's Consent

As participant,

I agree to be interviewed for the research entitled **“The use of creative and arts-based methods to overcome the barriers in public participation”**, which is being produced by Mitchell van Dijk of the University of Groningen and University of Gadjah Mada (UGM).

- I have been given satisfactory answers to my inquiries concerning project procedures and other matters; and that I have been advised that I am free to withdraw my consent and to discontinue participation in the project or activity at any time without prejudice
- I agree to participate in one or more electronically recorded interviews for this research, and one or more written correspondences via email or any other messages facilities. I understand that such interviews and related materials will be kept completely (not) anonymous, and that the results of this study will be published in interviewer's master thesis and other academic courses, and may be published in academic journals, and academic conferences
- I agree that any information obtained from this research may be used in any way thought best for this study. I would (not) like to have the copy of this interview's transcript, and the copy of the draft final thesis, and please send it to:

Hereby I grant the right to use information from recordings and or notes taken in interviews of me, to the University of Groningen and University of Gadjah Mada (UGM). I understand that the interview records will be kept by the interviewer and the research, and that the information contained in the interviews may be used in materials to be made available to the general public.

Place and date:

Name of participant:

Signature of participant:

**Any hesitation and questions can be addressed by contact the researcher on phone number:
+62 852 8164 5704*

Lembar persetujuan

“Penggunaan metode kreatif dan berbasis seni dalam mengatasi hambatan partisipasi masyarakat”

Deskripsi wawancara

Nama saya Mitchell van Dijk, seorang pelajar dari Belanda. Saat ini saya sedang melakukan penelitian di Universitas Gadjah Mada, guna mendapatkan gelar Magister Perencanaan Wilayah dan Kota. Untuk penelitian ini, saya ingin mengetahui pendapat dan kebutuhan Anda diperhitungkan oleh pemerintah ketika perubahan dilakukan di dalam dan sekitar kota, dan khususnya di sepanjang kali Code.

Dengan jawaban Anda, saya berharap dapat memahami situasi ini dengan lebih baik dan saya akan menggunakan informasi ini untuk memberikan rekomendasi kepada pemerintah daerah di Yogyakarta dan Belanda. Jawaban Anda hanya akan digunakan untuk penelitian ini dan seluruhnya bersifat anonim dan dijaga kerahasiaannya.

- Wawancara ini akan direkam untuk mendapatkan informasi yang akurat tentang pandangan peserta. Yang dapat mengakses rekaman dan/atau transkripnya hanyalah pewawancara dan kedua dosen pembimbing.
- Segala sesuatu yang dikatakan peserta selama wawancara akan dijaga kerahasiaannya
- Peserta dapat memilih untuk tetap anonim; itu berarti namanya tidak akan muncul di transkrip atau publikasi selanjutnya.
- Dimungkinkan untuk menambahkan informasi tambahan pada transkrip yang diperoleh dari korespondensi antara peserta dan pewawancara melalui email atau fasilitas pesan lainnya.

persetujuan peserta

Sebagai peserta,

Saya setuju untuk diwawancarai untuk penelitian yang berjudul **“Penggunaan metode kreatif dan berbasis seni dalam mengatasi hambatan partisipasi Masyarakat”** yang diproduksi oleh Mitchell van Dijk dari Universitas Groningen dan Universitas Gadjah Mada (UGM).

- Saya telah mendapatkan jawaban yang memuaskan atas pertanyaan saya mengenai prosedur proyek dan hal-hal lain; dan bahwa saya telah diberi tahu bahwa saya bebas untuk menarik persetujuan saya dan menghentikan partisipasi dalam proyek atau aktivitas kapan saja tanpa prasangka.
 - Saya setuju untuk berpartisipasi dalam satu atau lebih wawancara yang direkam secara elektronik untuk penelitian ini, dan satu atau lebih korespondensi tertulis melalui email atau fasilitas pesan lainnya. Saya memahami bahwa wawancara dan materi terkait tersebut akan disimpan sepenuhnya (tidak) anonim, dan bahwa hasil penelitian ini akan dipublikasikan dalam tesis master pewawancara dan mata kuliah akademik lainnya, dan dapat dipublikasikan dalam jurnal akademik, dan konferensi akademik.
 - Saya setuju bahwa segala informasi yang diperoleh dari penelitian ini dapat digunakan dengan cara apa pun yang dianggap terbaik untuk penelitian ini. Saya (tidak) ingin memiliki salinan transkrip wawancara ini, dan salinan draf tugas akhir, dan mohon dikirimkan ke:
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Dengan ini saya memberikan hak untuk menggunakan informasi dari rekaman dan atau catatan yang diambil dalam wawancara saya, ke Universitas Groningen dan Universitas Gadjah Mada (UGM). Saya mengerti bahwa Catatan wawancara akan disimpan oleh pewawancara dan peneliti, serta informasinya yang terkandung dalam wawancara dapat digunakan dalam bahan-bahan yang akan tersedia bagi masyarakat umum.

Tempat dan tanggal:

Nama peserta

Tanda tangan peserta:

** Keragu-raguan dan pertanyaan apa pun dapat diatasi dengan menghubungi peneliti di nomor telepon:
+62 852 8164 5704*