Environmental Crisis in Jakarta

and how it affects the local impoverished communities

Master's Thesis

Submitted in Partial Fulfillment of the Requirements for the Degree
of Master of Social Science

Development and International Relations
Aalborg University in Copenhagen
Specialization in Global Refugee Studies

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October, 2023

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Abstract

The general idea concerning my thesis revolves around the environmental crisis in the capital of Indonesia. For many inhabitants, climate change means abandoning their homes where they have lived for generations. The current situation of Jakarta puts the lives of more than 10 million people at risk, as their homes are about to sink. Jakarta is not the only coastal city in the world to face rising sea levels, but in this specific case, the sea rises much rapidly due to excess groundwater extraction, making the capital the fastest sinking city in the world. The government has revealed plans to relocate the capital to a yet-to-be-built city in another part of the country, which may contribute to the neglect of Jakarta and its people in the fight to stop the environmental crisis. In this thesis I look into the relation between the government's actions in order to prevent the city from flooding and the actions of local inhabitants, especially those living in informal settlements, called Kampungs. They are the ones who are directly impacted by environmental hazards while having little or no means to protect themselves. Yet, they find ways to show resilience and solidarity with one another, while defying climatic, as well as political adversity.

Research questions

How are local poor communities in Jakarta included in the process of addressing and adapting to the consequences of the climate crisis affecting the city?

How are those communities impacted by the governmental policies regarding climate-related disasters?

Introduction

Over time, the northern coast of Jakarta has undergone significant changes. In the past, it was a bustling hub of trade, commerce, and settlement for the Indonesian capital (Padawangi, 2012, p.323). However, with the rapid growth of the city and post-independence economic development, environmental challenges have

emerged (ibid). Unfortunately, limited attention has been given to environmental management, leading to various environmental hazards such as floods, land subsidence, and saltwater intrusion (ibid). The north coast of Jakarta is particularly vulnerable to these challenges, with land subsidence reaching 8mm per year and a projected sea level rise of 3-5mm per year (ibid). Additionally, North Jakarta has a higher number of impoverished households compared to other regions, with approximately 43,480 poor households and 150,000 inhabitants living in the deprived areas as of 2008 (ibid). Most of these households reside along riverbanks and dams, where pollution from the rivers has contaminated the land on which they live (ibid).

In the meantime, the Indonesian government plans to move the capital from Jakarta, located in northwest Java, to Nusantara, located near East Kalimantan (Umar, 2022, par.1). The relocation is driven by geographic factors, namely its position in the middle of the Indonesian archipelago and the fact of being an area free of disasters that often hit Indonesia - whether it is earthquakes, volcanic eruptions or tsunami. Also economic and security factors play a big role in this decision (ibid, par.4). I take a closer look at the fact that the Indonesian government might be focusing most of its attention on the mega-projects, such as moving the capital, building a giant sea wall or making investments aimed to attract tourists, without considering the situation of the people of Jakarta and making little effort to help them in the situation they are in (ibid, par.10). According to the findings, there are cases in which the government does not respect the human rights of the Indonesian citizens, seizing land and houses belonging to people living in poverty and relocating them without providing long-term solutions to their situation (Irawaty, 2018, p.5).

Some of those people are forced to move into housing they can't afford and are consequently left homeless (TDC, 2022, 0:10:12-0:10:50). Inhabitants of Jakarta take actions themselves in order to make their home city more livable (ibid). Most of them don't want to leave the houses in which they have lived for generations, due to their tradition and culture of preserving the home of their ancestors (ibid). Therefore, I look into the efforts that they take in order to save their homes.

I also briefly investigate the historical aspect of Dutch colonization of Indonesia as part of the historical background analyses, in order to see the connection between city-planning made by the colonizers and the effects of this venture today in Jakarta.

Methodology

Due to the extensive environmental scope of the study, logistics for travel to certain countries in the Asia-Pacific region, such as Indonesia, pose a significant challenge. As a result, the study is mostly based on secondary research sources that are readily available through scholarly channels. This approach is necessary due to the limitations and constraints posed by the practical difficulties of conducting primary research in these areas. Nevertheless, I also use an additional primary research method to gain some insights from first hand sources, in the form of semi-structured interviews.

Secondary research

The methodology I chose for my research is centered around secondary research study, a process that involves the utilization of existing data to enrich the depth and effectiveness of my investigation (Bhat, 2023, par.4). I opted for this approach for several compelling reasons that directly align with the goals and constraints of my study.

One of the paramount advantages of employing secondary research in my work is the significant time and resource savings it affords. By using pre-existing data, I can avoid the time-consuming and often costly process of primary data collection, allowing me to focus more on the core analysis and interpretation of the information at hand (ibid, par.5). This is particularly relevant due to the focus of my study on the Indonesian population, which necessitates research activities in a geographically distant location from my current base.

In conducting secondary research, I have carefully selected sources and thoroughly evaluated data reliability and relevance, as well as critically examined and identified potential biases or limitations (ibid, par.6). These steps ensure the integrity of my findings and strengthens the validity of my research (ibid).

For this thesis, most of my secondary data is drawn from diverse sources available on the internet, as well as data repositories maintained by government and non-government agencies, educational institutions, and commercial information providers. These sources encompass a wide spectrum, including newspaper articles, local journals, magazines, and even YouTube videos, all of which contribute to a comprehensive understanding of the topic of climate change in Jakarta. Some of these materials I have found myself and others were recommended to me by my interlocutors, as a reliable source of information.

In summary, my decision to embrace secondary research as the cornerstone of my methodology stems from its inherent advantages in terms of availability, cost and time-effectiveness. In contrast to primary research, which entails the collection of raw data from the ground up, secondary research allows me to harness the knowledge already filtered and refined by others, setting a solid foundation for my investigative pursuits (ibid, par.9).

To execute research using secondary data, I've meticulously followed a series of essential steps: defining my research topic, identifying pertinent data sources, gathering existing data, validating and structuring the data, and conducting a thorough analysis (ibid, par.23). These systematic procedures ensure that my research maintains the highest standards of reliability and relevance.

Semi-structured interviews

Semi-structured interviews is a data collection method in qualitative research (DeJonckheere & Vaughn, 2019, p.2). This approach involves posing open-ended questions that fall within a pre-established thematic framework (ibid).
The aim is to obtain qualitative data that sheds light on participant attitudes, thoughts, and beliefs concerning a specific subject, often delving into personal and sensitive matters (ibid). Researchers use this method because it allows them to prepare beforehand, ensuring they remain organized and focused during the interview (ibid). The semi-structured interview approach proves most valuable when

researchers desire to obtain a comprehensive understanding of the respondent's beliefs and emotions concerning a particular topic (ibid). It also proves useful in exploring a previously unexamined topic (ibid). All in all, the semi-structured interview method provides researchers with a flexible and effective tool for collecting qualitative data and gaining an understanding of participant experiences and viewpoints.

I conducted interviews with three individuals from Indonesia. Two of them, Fabian and Sandy, are permanent residents of Copenhagen but spent most of their lives in Jakarta, where they grew up, worked or studied. During our meetings, Sandy was employed as a Data and Automation Engineer, and Fabian worked as a Lean Engineer for an international company. These in-person interviews took place in local cafes, providing a quiet and comfortable setting for our in-depth discussions, each lasting approximately 30 to 45 minutes. The third interviewee, Mario, was currently residing in Jakarta with his family, leading to our interview being conducted online. Mario had lived in Copenhagen for two years while working as a chef, until his work visa was denied. All three interviewees fell within the age range of 25 to 30 years old.

Fabian had close family ties to one of the Kampungs in Jakarta and Sandy had lived in a Kampung for a period of time, which provided them with firsthand insights into life in such areas. Mario possess knowledge of the Kampung neighborhoods, among others, from his presence at local fish markets over the years, where many of Kampung's residents work, his daily commute through these areas, as well as his conversations and sharing of insights regarding life in Kampungs and its inhabitants with family and friends.

I had prepared a set of questions in advance for these interviews. However, the direction of the conversations sometimes diverged from my initial plans, depending on the course of the interviews and the willingness of my interlocutors to share. The interview durations varied slightly, reflecting the interviewees' comfort levels with sharing their experiences. My connections and acquaintances within my circle of friends played a crucial role in identifying these interviewees. They helped me to facilitate contact with Indonesian individuals, allowing me to connect with these

insightful interviewees. Although I initially intended to conduct more interviews, the amount of information gathered from these three individuals provided a solid foundation for data analysis. I found my interviewees to be remarkably open, cooperative, and eager to share their experiences. These interviews offered me a valuable window into the perspectives, emotions, and experiences of my interlocutors concerning global warming in Indonesia, the floods in Jakarta, the circumstances of marginalized communities within the city, and much more. While recognizing that personal perspectives are inherently subjective, I firmly believe that there is no better way to comprehend these complex issues than by engaging directly with local individuals and actively listening to their voices. My questions remained closely tied to my research objectives, providing insights into how marginalized communities are impacted by climate-related disasters and how they are integrated into processes addressing and adapting to the consequences of the climate crisis, among other critical aspects.

The interview data helped me to develop a comprehensive understanding of the experiences and perspectives of the local poor communities in Jakarta related to the climate crisis. By applying Environmental Justice Theory, Resilience Theory, and Recognition Theory in analyzing both the interview data and secondary sources in my research, I was able to gain a comprehensive and nuanced understanding of the complex issues related to my research question. These theoretical frameworks provided a lens through which I examined the data and uncovered patterns, themes, and relationships that might have been overlooked otherwise..

Limitations

Limitations of secondary research method

While conducting my research using the secondary research method, I did encounter some limitations. One limitation that I had restricted control over was the quality of the secondary data. Since I didn't collect the data myself and often didn't have access to the original sources, I had to rely on the integrity of the data as presented

in the secondary sources (Mora, 2022, par. 5). Nonetheless, I took measures to ensure that the sources I used were reputable and credible.

Another potential concern with secondary research is bias and interpretation limitations (Mora, 2022, par. 6). Because I wasn't involved in the data collection process, I had to be cautious about potential biases in the original research and the limitations in how the data was interpreted (ibid). Fortunately, the materials I came across were fairly straightforward and consistent. I also made an effort to consider multiple perspectives while presenting the research problem, which helped minimize issues related to bias, prejudice, or incoherence from the authors whose work I relied upon.

One aspect that did make my research more time-consuming was the need to rely on multiple sources to gather the necessary data. This approach required significant time and effort to ensure that I had a comprehensive understanding of the topic (Mora, 2022, par. 7). Additionally, I encountered situations where certain secondary data were not publicly available or where I had limited access to them. These challenges did contribute to an extended research timeline but didn't significantly hinder my overall progress.

In conclusion, while secondary research does come with its limitations, I managed to navigate these challenges effectively. My approach involved careful source selection, cross-referencing, and a commitment to presenting a well-rounded perspective on the research problem.

Limitations of interviews

Prior to selecting interview participants, an ethical approach should be established in the research project (DeJonckheere & Vaughn, 2019, p.4). This ethical framework should encompass the values of respect, sensitivity, and tact, ensuring their application towards all participants involved in every stage of the research process (ibid). Semi-structured interviews require participants to disclose personal and

sensitive information directly to the interviewer, creating a power imbalance between the researcher and participant (ibid). Therefore, while conducting my interviews, I took the measures to minimize the risk of harm, protect participant information, provide adequate information about the study's purpose and format, and reduce the possibility of exploitation (ibid).

Furthermore, the flexibility inherent in semi-structured interviews may diminish their validity (George, 2023, par.25). Comparing responses among participants can be challenging when interviewers deviate significantly from the predetermined list of questions (ibid). My own experience reflected this challenge, as interviews varied considerably due to differences in participants' personalities. Consequently, I found myself adapting my approach to each interview, trying to determine what specific information I could gain from each individual.

Another limitation of semi-structured interviews (SSI) is elevated risk of research bias - the open-ended nature of SSI can lead to potential issues (ibid, par. 26). Interviewers may be tempted to pose leading questions, resulting in observer bias (ibid). Inversely, respondents might feel inclined to provide answers they believe the interviewer desires, leading to social desirability bias (ibid). To prevent this, I aimed to maintain an impartial stance and not steer discussions in any particular direction. I strived to create a safe environment where participants could openly share their experiences. In my view, genuine empathy and a willingness to listen and understand the discussed subject, often eliminate the need to guide respondents, allowing them to share voluntarily. Nonetheless, it can be limiting when participants do not provide adequate information or fail to directly address the questions, which, in my understanding, can be happening because of the luck of knowledge on the topic, but also because of an emotional barrier and anxiety, which is why it is so important to make the interlocutor feel safe.

Crafting effective semi-structured interview questions can prove challenging due to the need to strike a balance between prior planning and spontaneous engagement (ibid, par.27). The entire process, from conducting open-ended interviews to transcribing them, is time-consuming as well (Shakespeare, 2023, par. 26) However,

the advantages of obtaining firsthand information through genuine conversations with individuals make the effort worthwhile.

Lastly, preparing meaningful questions for semi-structured interviews demands extensive resources, both in terms of topic knowledge and showing participants that the interviewer is well-versed in the subject matter (ibid, par.27). This requirement not only necessitates thorough preparation but also demonstrates the interviewer's reliability and expertise.

Literature review

Many scientists address the topic of climate change and consequently the displacement of people in their papers and articles. The environmental consequences of human-induced climate change are among others internally displaced people. In my work, I have chosen to focus on Indonesia, because of the special nature of the place, as the capital of Indonesia, Jakarta is "considered as one of the most vulnerable cities to climate-related disaster, including flooding, sea-level rise, and storm surge" (Firman, et al., 2010, p.372). Environmental pollution and over-extraction of groundwater, due to the lack of access to drinking water, negatively affects the already bad situation in Indonesia (ibid). It is also an incredibly overpopulated city, with a constant influx of new people, residents of other parts of Indonesia heading to the capital for, among other things, job searches (ibid). As an example, in 2010 the population reached 1300 people per square kilometer (ibid). The standard of living of the population in Indonesia is quite low, given their economic situation, and research shows that "the poor are likely to be the most vulnerable group to the climate-change related impacts" (ibid). Inadequate infrastructure and inefficient use of land, influence the increasing frequency of flooding in Indonesia, which significantly affects the quality of life of its people (ibid, 373). "According to Fuchs (2010), several actions should be taken to reduce the risks associated with climate change: (1) Awareness raising; (2) Risk and vulnerability assessment analysis; (3) Coastal flood prediction and flood risk mapping; (4) Flood protection works; (5) Warning systems and evacuation planning; (6) Land use and spatial planning (7) Land subsidence control; (8) Disaster response and relief; (9) Improved management capacity (10)". As he says, 'it is possible to

reduce the risk of major disasters, although it is difficult and there is a need to integrate climate change management into urban planning and management' (ibid). Stainberg (2007) conducted a study on this topic focusing his attention on "traffic, urban infrastructure, environmental pollution, housing, the rich and the poor, planning and management for the city", but he does not specifically address the potential impacts of climate change on Jakarta development or people (ibid). The Indonesian government is focusing increasing attention on green solutions, reducing pollution or educating the local population, but it is nevertheless a long and difficult process (ibid). The article by Firman, Surbakti, Idroes and Simarmata (2011) called: "Potential climate-change related vulnerabilities in Jakarta: Challenges and current status" enables us to examine the climate change issue in Indonesia, with a particular focus on Jakarta, from multiple key angles. These include a critical evaluation of climate risk assessment and socio-economic vulnerability in Jakarta, as well as an analysis of how climate change impacts are factored into the Jakarta Spatial Plan, and a discussion of the institutional aspects related to managing climate change in the city. A 2011 article by Mario Wilhelm called: "The Role of Community Resilience in Adaptation to Climate Change: The Urban Poor in Jakarta, Indonesia" suggests that instead of focusing on listening to experts and scientists on climate change issues taking place in big cities, so-called megacities like Jakarta, it is worth paying attention to the local population, especially those living in poorer neighborhoods (slums). Research shows that educating the population and allowing them to carry out their own initiatives influences the development of collective action (so-called social capital) (Wilhelm, 2011, p.1).

In their 2019 article, Dwirahmadi, Rutherford, Phung, and Chu suggest formulating a notion of a flood-resilient community by delving into the key attributes and influential hindrances to such resilience. They approach this exploration through the perspectives of three primary stakeholder groups: disaster risk reduction (DRR), climate change adaptation (CCA), and development (Dwirahmadi, 2019, p.1). The authors contend that this concept, along with these stakeholder categories, underscores the pivotal role of 'human elements' in the endeavor to build resilience (ibid, p.1). Therefore, I decided to explore the initiatives that the local community of Jakarta takes in order to deal with the climate change affecting their city. This research aims to show the importance of focusing attention on the inhabitants and

their ideas in the fight against the climate disaster, as they are the ones directly affected by it.

Theory

An outline of Environmental Justice Theory

Environmental justice theory is useful in answering the research question about Jakarta's inhabitants and their role in preventing flooding and improving livability in the face of an environmental crisis. In the case of Jakarta, environmental justice theory can help identify which communities are most vulnerable to flooding and other environmental hazards, and how their voices and needs are included in decision-making processes. It also sheds light on the social and economic inequalities that may exacerbate the impacts of environmental hazards on certain communities (Fijałkowski, 2017, p.25). By using an environmental justice lens, I explore how different social groups in Jakarta experience and respond to the environmental crisis, and how they advocate for their own needs and interests. This can include examining the ways in which community organizations and grassroots movements have mobilized to address the crisis and promote more equitable and sustainable solutions.

Overall, environmental justice theory can provide a valuable framework for understanding the social dimensions of environmental issues, and for exploring the ways in which marginalized communities are included (or excluded) from decision-making processes related to environmental management and adaptation.

Environmental Justice Theory

Environmental justice originated as an idea in socio-legal doctrine in the United States (Fijałkowski, 2017, p.26) . Environmental justice is a theory that centers around the concept of equal treatment by the government and a meaningful involvement of all individuals regardless of their race, ethnicity, nationality, or economic status in the formulation and implementation of environmental laws,

regulations, and policies (ibid). Equity in this context implies that no one should suffer negative consequences from environmental changes or actions solely due to their racial, ethnic background or economic standing (ibid, p.27). Previously mentioned 'meaningful involvement' means that groups potentially impacted by detrimental environmental changes, shifts in the environment, or its utilization have the right to participate in decisions concerning actions that might pose risks to them, the environment, and their well-being, with their concerns being given due consideration (ibid).

At the core of the environmental justice philosophy lies the principle of providing equal treatment to users of the environment, thereby guaranteeing equal access to an environment of reasonable quality (ibid, p.28). Environmental justice theory focuses on the idea that environmental benefits and drawbacks are shared fairly among different groups in society, especially those that are marginalized or disadvantaged (ibid). It posits that environmental issues are not purely technical matters but are deeply intertwined with social disparities and power dynamics (ibid).

In summary, the theory of environmental justice holds significant relevance to the central research question addressed in this thesis. It enables us to delve into how different societal groups are impacted by issues such as urban flooding and other environmental challenges. This theory acknowledges that certain communities may bear a disproportionate burden when it comes to these problems, particularly those that are economically disadvantaged, socially marginalized, or lacking in access to resources and political influence.

What does the term 'justice' mean in discussions of environmental and ecological justice? According to David Schlosberg (2007), activists and academics in the environmental justice movement have been discussing the meaning of justice for two decades. However, these discussions identify two major gaps that need to be addressed (Schlosberg, 2007, p.3) First, while the literature on justice in political theory has expanded over the past few decades, these developments have rarely been applied to the environmental justice movement (ibid). The focus of justice studies used to be solely on the distribution of goods in a society, but contemporary theories of justice also address the processes that construct maldistribution,

individual and social recognition, and the status of those less well-off in distributional schemes (ibid,p.4). Additionally, contemporary theories of justice often include a component of procedural or participatory justice. In essence, many contemporary theories of justice encompass a perspective that goes beyond the mere distribution of resources to include theories of recognition, participation and the functioning of individuals in society (ibid, p.5). Despite the significant advancements in justice theory, the environmental justice movement has received limited attention (ibid). Typically, discussions of environmental justice focus on the unequal distribution of environmental goods and bads, with poor communities, indigenous communities, and communities of color receiving less protection and more negative environmental impacts (ibid). Some have emphasized procedural justice and participation, while others have focused on recognition and cultural barriers (ibid).. Schlosberg finds it important to bridge the gap between justice theory and environmental justice movements (ibid, p.6). In this thesis, I try to take the insights and perspectives provided by justice theory and apply them in a practical way to real-world environmental issues and challenges faced by marginalized communities, specifically in Jakarta.

An outline of the concept of Resilience

I decided to include this concept in my thesis, because it will help me to explore how local poor communities in Jakarta show adaptability and take actions to address the impacts of climate change. Resilience is an important concept for understanding the decision making process and strategies of people who choose to stay in vulnerable areas and continue to live in the face of climate-related risks, as well as to understand those who decide to migrate because of climate issues (Choko et al., 2019, p.2).

Resilience

Understanding resilience is beneficial for assessing how communities can adapt to climate change while preserving and advancing essential community functions, such as providing food, protecting homes and other residential centers, ensuring

community safety, etc. (ibid). Resilience efforts can be divided into absorptive, adaptive, and transformative resilience (Jean at al. 2016, p. 17). *Absorptive capacity is* the ability to take protective action to cope with shocks and stresses. It is developed because shocks and stresses are something that cannot be avoided and recur constantly during climatic disasters (ibid). *Adaptive capacity* is the ability to make deliberate and gradual changes in anticipation of upcoming 'stresses', which are e.g. possible floods, earthquakes etc. It is also a form of adaptation to change, in this case climate change, which is inevitable and to which one must adapt (ibid). It is, therefore, the capacity that communities acquire to be more flexible in response to upcoming changes. This may involve measures such as building infrastructure to withstand natural disasters or adopting new practices that are better suited to changing environmental conditions (ibid). The last is *transformative capacity* and it is about making changes to contain or reduce risk factors, while eliminating inequalities in the struggle or in bearing the consequences of a given risk (ibid). It talks about ensuring that the fight against climate disasters does not fall on the shoulders of poor and vulnerable groups, but is equally distributed (ibid). Resilience is not just about surviving under any conditions, it is about ensuring adequate conditions, as well as fair and inclusive development in a society or group (ibid). Therefore, resilience can involve making changes to living conditions or livelihoods to mitigate the effects of environmental hazards and maintain a sustainable way of life (ibid).

Although communities often do not have the resources to cope with climate change and mitigate its risks, they do have the ability to create actions and ways of dealing with it. Through resilience, they reduce their vulnerability to these changes and risks over time (Choko, et al. p.2). Communities often play a significant role in coping with climate disasters, but it is important not to place too much responsibility on them, as they often are already vulnerable (ibid). Therefore, they shouldn't be left to fend for themselves, without assistance from the state and without the means to implement appropriate measures (ibid). In many places, as in the case of Jakarta, systemic and structural changes are needed to adequately address the effects of climate change and not just short-term measures to survive a disaster. On the other hand, there are times when such communities are underestimated and disempowered by the government or society and denied the right and opportunity to cope with climate-induced risks that directly affect them (ibid). Resilience refers to the ability of

communities to adapt and respond to environmental stressors such as flooding, especially in the absence of support from the government (ibid).

According to Joakim et al (2015), resilience can be also understood as *resistance* - being able to withstand and endure the effects of climate change without causing harm to human society. This can be seen as the ability to resist and recover from the impacts of climate change. However, in the case of climate change, the natural environment may be severely impacted, and this could lead to changes in the way people live and do business as the resources they rely on may no longer be available or useful (Joakim at all., 2015, p.142).

Another way of seeing resilience is by looking at it through the lenses of *recovery.* Resilience as recovery relates specifically to the aftermath of climate-related disasters and refers to the ability to recover and return to a desirable level of functioning (ibid, p.142) This recovery process involves both inherent resilience, which is the existing capacity of individuals and communities to cope with crises, and adaptive resilience, which is the ability to maintain function in crisis situations based, on ingenuity and extra effort (ibid,p.143.). Resilience also involves the capacity to absorb the impacts of climate-related hazards while still being able to return to functioning quickly (ibid). However, it is important to recognize that resilient systems do not necessarily achieve a state of equilibrium and that returning communities to their pre-disaster level of functioning may not be enough to protect them from future hazards (ibid). Finally, while the recovery approach to resilience is important for extreme events, it may be less useful when considering longer-term, slow onset and chronic hazards associated with climate change (ibid).

Resilience can be also understood as a creative *transformation*. In this context, resilience can be seen as the process of adapting to new circumstances and learning from the experience of disasters or extreme events (ibid, p.143). It involves transforming communities to become more functional and adaptable in the face of climate change (ibid). Resilience concepts incorporate the adaptive and transformational capacity of individuals, groups, and communities (ibid, p.144) Rather than just focusing on recovery, resilience is seen as a tool for promoting positive growth and improving overall well-being, viewing climate change as a

catalyst for learning, transformation, and growth in the community (ibid).This approach accepts change as inevitable and recognizes the complex inter-linkages between adaptation and resilience. It is particularly useful in the context of long-term, chronic hazards such as sea-level rise, where transformation is necessary instead of just recovery (ibid).

To fully understand resilience, we need to look at the concept of vulnerability as well. Vulnerability in the context of communities dealing with climate change refers to the degree to which a community is susceptible to the negative impacts of climate change, such as extreme weather events, sea-level rise, and changes in temperature and precipitation patterns (ibid, p.138). Vulnerability is influenced by a variety of factors, including physical, social, economic, and political conditions, as well as the level of exposure and sensitivity to climate hazards and the capacity to adapt and cope with these changes (ibid). Communities that are already facing social and economic challenges, such as poverty, inequality, and lack of access to resources and infrastructure, are often more vulnerable to the impacts of climate change (ibid). Thus, understanding and addressing vulnerability is crucial for effective climate change adaptation and building resilience in communities (ibid, p.139). Some groups previously identified as vulnerable have been found to be resilient during crisis events. This suggests that all populations have the potential to cope, adapt and transform on some level (ibid, p.149).

An outline of Recognition Theory

Honneth's Recognition Theory can be useful in answering the research question of this thesis by examining how the inhabitants of Jakarta are recognized in relation to their rights as citizens and as members of a community affected by flooding and environmental issues. This involves studying the ways in which different groups of inhabitants are recognized or not recognized by the government or the society, and how this affects their ability to participate in decision-making processes and take actions to address the environmental crisis. It allows me to investigate how different groups of Jakarta's inhabitants, such as those living in informal settlements or those

with lower socio-economic status, are recognized in terms of their contributions to addressing flooding and environmental issues. This involves examining the ways in which their opinions and experiences are valued and incorporated into decision-making processes, or the extent to which they are excluded or marginalized.

Recognition Theory

O'Brien et.al, using Axel Honneth's Recognition Theory suggests that an individual's autonomous identity is established through three different forms of recognition: self-confidence, self-respect, and self-esteem (O'Brien, Maynooth, 2013, p.64). *Self-confidence* is developed through love and friendship, which create a sense of basic trust and allow individuals to express themselves without fear of abandonment (ibid) *Self-respect* is achieved through civil society, which offers wider opportunities for individual self-realization and the establishment of legal rights. Finally, *self-esteem* is realized through social solidarity, where individuals are valued and accepted in a community that shares their values and goals (ibid). The absence of any form of recognition can result in negative emotional responses or the denial of individual rights, leading to social isolation and stigma (ibid). Each form of recognition is interrelated and helps to develop personal and social relations (ibid, p.65).

The theory asserts that the attainment of social justice can be accomplished through our interpersonal relationships, where one person recognizes another as an equal (ibid, p.66). Honneth argues that our human interdependence is based on intersubjective recognition, which has been institutionalized in society's family, civil society, and the state (ibid). Recognition is critical to our sense of self, well-being, and our capacity to function autonomously (ibid). Recognition theorists contend that empowerment and social change are best achieved through the recognition of others (ibid). Honneth describes struggles for recognition as social processes in which certain groups resist unequal treatment and derogatory labels that dominant and powerful elite groups assign to them (ibid). Disrespect can occur when recognition is denied at any stage of personal or social development within the family/friends, civil

society, or by the state. These can manifest as physical or emotional abuse, denial of rights, and lack of social value (ibid).

Honneth proposes that the denial of recognition or misrecognition is a kind of oppression that restricts an individual's development and self-expression (ibid, p.67). This denial can cause a distorted and diminished sense of self, leading to internal conflict and distress. Honneth argues that recognition can repair this damage by challenging the dominant culture's negative portrayal of marginalized groups (ibid). Recognition is not just important for children but for all individuals, as it is a vital aspect of identity formation. It involves being respected as an individual with autonomy, and having the right to participate in civil society institutions (ibid). Self-esteem, which develops when we receive social recognition for our unique abilities and skills, is another critical aspect of recognition (ibid, p. 69). Social recognition occurs when we feel connected to a community that values our worth and contribution (ibid). In contrast, misrecognition in this context manifests in the form of social rejection and stigma. When we experience disrespect, we are deprived of recognition and our self-concept becomes distorted, leading to negative outcomes (ibid). According to Honneth, recognition is a fundamental human need, and lack of recognition can lead to what he terms misrecognition or disrespect (ibid, p.70) The three forms of recognition described by Honneth are crucial for normal identity formation (ibid,p.71) When any of these forms are injured or disrespected, it can have negative impacts on the others and limit our freedom and development. The way to promote the full flourishing of all three forms of recognition is by creating a community of solidarity in which everyone feels included and valued (ibid). The aim of that is to reduce the risk of anyone feeling marginalized or treated as a second-class citizen.

As mentioned above, Honneth's theory identifies three distinct spheres of recognition: *self-confidence, self-respect and self-esteem,* which can be translated into *love* and friendship in the family, legal and political *rights* in civil society, and *social esteem (solidarity)* in the public sphere (Thomas, 2012, p.456). By referring to *love,* Honneth is highlighting primary relationships that are formed through strong emotional connections among a small group of people (ibid). These relationships are complex and involve various emotional interactions such as affection or trust.

Honneth believes that these relationships can lead to mutual recognition of independence, which is supported by a shared concern (ibid). Honneth argues that love represents the structural core of all ethical life (ibid). It is only through this symbiotic bond that individuals can gain the basic self-confidence necessary for autonomous participation in public life (ibid).

Honneth uses the term *rights* to refer to the recognition of individuals as moral agents in modern legal systems (ibid). However, unlike the first mode of recognition (love), this concept must be understood in a historical context. In pre-modern societies, legal recognition was closely tied to social norms and roles, making it difficult to distinguish from esteem (ibid). Honneth refers to the modern transformation of legal recognition, which includes civil, political, and social rights. The first step, according to Honneth, is that individuals must recognize each other as morally responsible (ibid). He suggests that modern law's essential indeterminacy about the status of a responsible person creates a structural openness to inclusivity (ibid). This tends to result in the extension of basic human rights to a wider range of people and an increase in the types of rights to which they are entitled. Honneth links this extension with social respect and self-respect, which he argues is dependent on the ability to claim one's rights through legal processes (ibid). Empirical support for this can be seen in negative experiences, such as those of the civil rights movement, where individuals feel social shame due to legal under-privileging, which can only be overcome through active protest and resistance (ibid).

Honneth defines *solidarity* as the result of social relations based on equal respect. However, this issue is complex and open to various interpretations (ibid, p.457). Honneth's analysis starts with the separation of respect from esteem, which is necessary for universal legal recognition (ibid). The question then becomes how to account for the social value of individuals beyond their legal standing. Honneth's approach expands on his predecessors' narrow concept of value-communities and instead focuses on the values and goals that define a society's self-understanding (ibid). The pluralization of values creates a space where individuals' sense of worth depends on being recognized for unique accomplishments. However, the definition of these abilities is not fixed and is dependent on the dominant interpretations of societal goals (ibid). Therefore, solidarity is easier to achieve within a group with

shared goals, but the challenge is to extend it to wider society based on mutual recognition of each other's unique value (ibid). As Meulen stated: "Solidarity in Honneth's work then means an interactive relationship in which individuals mutually sympathize with each other's different ways of life because they esteem each other in reference to a shared value horizon (...). This solidarity in the sense of mutual recognition is not the solidarity of the 'us' against 'them': it is a sense of brotherhood but one that connects a concern for the well-being of the other with the universality of human rights and the protection of dignity. It is not an exclusive solidarity of the group or class, but an inclusive solidarity that promotes self-esteem by way of solidarity, self-respect, and protection of rights" (ter Meulen, 2016, p.525).

Summary of the Theoretical Chapter

Recognition theory, Resilience, and Environmental Justice theory is used in this thesis in order to answer the research question about local poor communities in Jakarta and their inclusion in the process of addressing and adapting to the consequences of the climate crisis affecting the city. These theories help identify which communities are most vulnerable to flooding and other environmental hazards, how their voices and needs are included in decision-making processes, and how they advocate for their own needs and interests. Additionally, these theories provide a valuable framework for understanding the social and economic dimensions of environmental issues, which I demonstrate on the basis of the findings from the interviews and collected data.

An outline of the Historical Chapter

I decided to take a closer look at the historical context of Dutch colonization of Indonesia, in order to see the connection between city-planning made by the colonizers and the effects of this venture today, especially in Jakarta.

Historical contextual chapter of Dutch colonization

Indonesia was ruled by the Netherlands Government for 125 years - from 1816 to 1941. This was immediately followed by a four-year Japanese occupation of the country. Indonesia gained its independence in 1945 (Indonesia Investments, 2023, para.22). The effects of the Dutch occupation can still be seen in Indonesia today. In this work I consider the social as well as architectural issues of this occupation, particularly in the country's capital, Jakarta. Through this thesis, I show that the way the city was built, the distribution of the population or the provision of adequate infrastructure during the Dutch occupation, has its effects nowadays, when the city faces a climate crisis.

Today's city structure was built around 1619, when the Dutch occupied the region of Batavi, today's Jakarta (ibid, p.33) Many researchers believe that the construction and structure of the city as we know it today was created on the model of Amsterdam (ibid). This is where the canals and draw-bridges that can be found in the city today, came from (ibid). Batavia was built with stones and bricks, and its massive structure was surrounded by stone walls three feet thick. Soon informal settlements, today known as kampungs, began to form on the outskirts of the city (ibid, p.35). Initially, these were rural areas where land was cultivated and vegetables were planted. The plan of the Dutch was to fill this part of the non-urban areas with Indigenous people, which would have the effect of reducing the population in the city, and through the production of goods, provide food for the cities population (ibid). Over time, these areas also began to be inhabited by free-migrants and slaves (ibid,p.36). The clear division between the urban and rural parts of the Batavi region ceased to work over time because, above all, it was unsuitable for the hot and humid climate of Indonesia, which brought disastrous environmental and health problems to the city (ibid, p.39). The Dutch began working with the Indonesians to change the city's structure and architecture, including moving the city center and changing the construction of houses (ibid, p.40). This created empty spaces within the city, which over time were inhabited by poor communities and became kampungs - an

"interface between the city and countryside" (ibid). Initially rural, over time Kampongs became more and more a part of the city, unfortunately thus becoming increasingly neglected and overcrowded, with limited access to drinking water or other basic services (ibid, p.48). More and more people began moving to Jakarta from other parts of Indonesia to seek new income and development opportunities - "'modernity of Jakarta led many 'migrants' to abandon the memories of ruin in order to occupy the city of the future" (ibid, p. 49). With population growth and increased demand for housing, green spaces, vegetable gardens or fruit trees began to disappear from the city. At some point, kampung residents began to subdivide their homes to provide space for newly arrived friends and family who decided to move to the capital (ibid). Soon after, buildings gradually consumed all available land, and the number of people began to significantly impact the pollution of nearby rivers and canals.

Water had an important role in the city from the start. The city was built on the designs of Simon Stevin, a Dutch urban planner (Zwart, 2020, para.2). He wanted the city to be divided into blocks for houses and markets, surrounded by walls and filled with canals, dikes and bridges (bid). The canals acted as a place where "a social activity has an edge condition," and additionally drained sewage out of the city (ibid). However, the Dutch did not take into account the amount of rainfall in Indonesia and the difference in soil they knew from Europe, which resulted in constant clogging of the canals, where the standing water began to smell and be incredibly dirty, which in turn affected the spread of germs (ibid). By the 1700s the city began to be called the "Graveyard of the East," according to the increasing number of illnesses and deaths among the population (ibid, par.3). No sooner than mid-1800, the Dutch understood the correlation between contaminated water and the spread of germs and began to gradually purify the water. They began to build wells and water reservoirs (ibid). Unfortunately, as Europeans were considered the 'true inhabitants' of Jakarta, the infrastructure providing clean water was built only around European neighborhoods. Using the availability of water infrastructure and the wall surrounding the city (which was initially designed to protect the city from attacks by foreign forces), the natives and other ethnic groups began to be separated from the Dutch (ibid, par.4). In the beginning of the 20th century, the new colonial government decided to increase access to clean water for the natives, but on the condition that they give up their previous way of life - in kampungs, which were seen by the Dutch

as unsanitary and problematic (ibid, par.5). The real solution to the water problem - which is the purification of water flowing in the city's canals and rivers - was only addressed by post-colonial governance (ibid, par.6). At the present time, this has still not been executed, making underground water abstraction still a much better option for Jakarta residents who want access to clean water (ibid). Additionally, today most of the local poor communities houses are located very close to the canals, which not only is risky, considering the amount of germs in those waters, but also it affects the flooding of these areas.

In conclusion, the canals built by the Dutch, still in use today, have not fulfilled their role, and additionally influenced the spread of germs and diseases. The Dutch colonists, instead of purifying the city's water in the canals and rivers, decided to relocate to another part of the city, leaving the growing problem to the indigenous people who had no means to clean the water. Using the idea presented by the Dutch - building a well - the Indonesians began to heavily rely on extracting groundwater as the only way to access clean drinking water. This, in turn, is now causing the soil level to drop by centimeters every year. It is worth noting that the water extracted from the well, on which millions of the city's inhabitants rely, is not even completely clean. To give an example, in 2009 urban (river) water was classified as "highly polluted" at 87% and underground water at 17% (ibid, table 2, 3).

It is difficult for the current government to deal with the problem of polluted municipal water, which has been there for centuries (ibid, par.7). Thus, they are trying to find other solutions to provide drinking water to residents - some very extreme ones, such as moving the capital to another city, thus reducing the number of people exposed to polluted water in Jakarta. Nevertheless, the process of purification of urban water has slowly started and is already bringing its first benefits - a topic that will be developed later in this work.

An outline of the Analytical Chapter

I decided to investigate the situation of urban poor communities in Jakarta, because they are the ones particularly affected by the current environmental crisis in Jakarta,

and in addition, they do not have the financial or logistical resources to cope with such a crisis. Featuring the situation of urban poor communities will also help me answer the research question regarding how the local citizens are included in the process of preventing Jakarta from flooding due to climate change. I will look into this topic using an Environmental Justice Theory, as well as Resilience and Recognition Theory.

Analysis of Jakarta's kampungs and their communities through the Environmental Justice Theory

While the kampungs in Jakarta may be stigmatized as "slums" due to inadequate access to essential services like sanitation, waste management, clean water, and drainage, as well as limited community spaces, schools, and healthcare facilities, they represent a truly distinctive and unparalleled urban environment. (Irawaty, 2018, p.ii). Kampung is "a space of anticipation", where residents try to stay one step ahead of the game to survive and thrive (ibid). The fluidity of kampungs, where physical, social, and economic spaces are intertwined, provides opportunities for residents to operate even as they are continually uncertain about the outcomes produced by their action" (ibid, p.5). Providing insights on the functioning of those communities can be a valuable example of how local communities cope in difficult circumstances, in a situation where the country's government does not help, but often hinders the functioning of these habitats. There are about 30 million people in multi-city Jakarta, the vast majority of whom live in the aforementioned Kampungs (United Nations, 2022, par.2). People living in these areas very often have no access to potable water and live in poor conditions. Nevertheless, due to climate change and the constant flooding of these areas, they are forced to look for solutions that will allow them to live in the best possible conditions. What they face is not only rising water levels, which affect flooding of streets and homes, especially during the monsoon season, but also air and water pollution, resulting from, among other things, the dumping of garbage directly into nearby rivers and canals (ibid), par. 10). Kampungs are often seen as unclean, full of germs, disease, and crime - places on the city map that are better avoided (Gulsyan, 2018, p. 4). That has to do with the

overpopulation of this region, but also with heavily polluted water, full of garbage and sewage (ibid).

The concept of environmental justice encompasses not only environmental concerns but also the significance of space and geographical location (Padawangi, 2012, p.324). Environmental issues are closely tied to specific areas, communities, and their spatial context (ibid). Jakarta's north coast is emerging as one of the areas most vulnerable to the effects of climate change (ibid,p.323). This region is vulnerable to floods, land subsidence, and saltwater intrusion, but it is also a place of settlement for the poorer part of the population (ibid). On top of that, industries and companies that are located in watersheds are heavily responsible for water pollution, dumping their toxic waste directly into nearby rivers (ibid, p.326). Wastes in Jakarta's waters eventually accumulate in the north coast, where all the rivers end, making the living situation for poor communities even worse (ibid).

Photograph 1. Situatedupe.net, (n.d)

A map of Kampungs in North Jakarta

While the number of people living in kampungs on the north coast and beyond is growing, new urban renewal projects are being put forward, aimed mainly at the upper-middle class of citizens (Padawangi, 2012, p.326). During the years 2005 and 2006, a minimum of five "Integrated Development Zones" were proposed exclusively in North Jakarta, encompassing a total area exceeding 4 million square meters (ibid). These designated zones, commonly comprising residential complexes alongside commercial and recreational spaces, exemplify the ambitious urban development plans. For instance, the Pantai Mutiara Integrated Development Zone showcases upscale apartments, waterfront residences complete with personal watercraft, and a dedicated recreational park (ibid). Such projects do not include solutions to the problems of poor communities that experience environmental problems every day. In addition, those mega-projects tend to portray waterfront living as something desirable, therefore adequate infrastructure and services are provided so that interest in these projects grows (ibid, p.327). Using a quote by Lefebvre: "(...) nature has become an image that was sold as lifestyle, but in reality the capitalist production of space has resulted in the defeat of nature - the environmental degradation" (ibid). In the case of Jakarta, living on the waterfront for one class is portrayed as desirable and full of advantages, while for another it is a daily struggle with environmental challenges (ibid). This highlights the unequal distribution of environmental benefits and burdens based on social class, as well as shows how social inequalities intersect with environmental issues, and how important it is to address these disparities to achieve environmental justice.

According to Abidin Kusno, Jakarta has transformed into a city characterized by a series of developmental endeavors, where profitable locations experience rapid advancements, while unprofitable areas are left to survive or perish on their own (Webber, 2017, par. 6). North Jakarta serves as a focal point in this ongoing struggle. The city's political and economic elites seek to reshape both its physical landscape and its inhabitants, aiming to cultivate a modern and resilient image through extensive infrastructure projects and the creation of urban green spaces (Kusno, 2011, p. 316). This process, termed "green governmentality" by Kusno, aims to establish ecological security and attractiveness in flood-prone regions like North Jakarta, which were previously viewed as undesirable (Webber, 2017, par. 6). As a
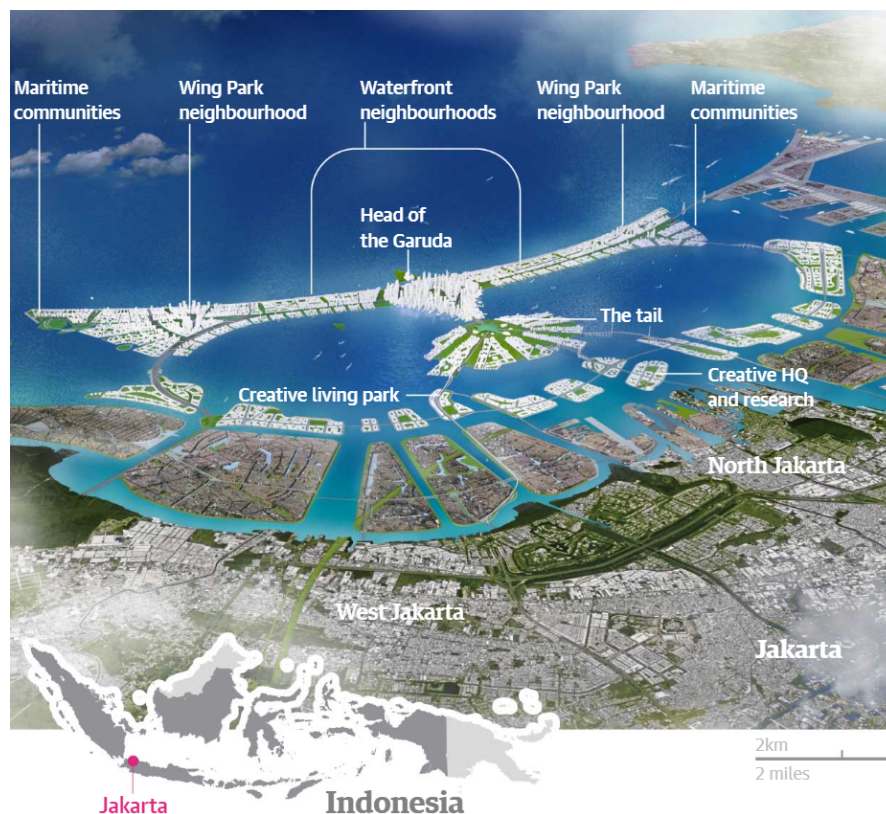
result, these northern areas are now garnering interest from the middle and upper classes of Jakarta, offering infrastructure projects, contemporary apartment complexes, and shopping malls (ibid). However, these transformations clash with the everyday livelihood practices and homes of kampung residents, posing challenges to their way of life (ibid). What Kusno means by "green governmentality" is that there is a demand to produce and reclaim more and more green spaces, but at the same time, the poor communities are not taken into consideration (Kusno, 2011, par.314). They are often seen as those who stand in the way, metaphorically and literally, of the success of urban green initiatives (ibid).

Photograph 2. Yusni Aziz, (n.d), "A resident of Kampung Akuarium fishes in a nearby river"

The residents residing in the northern region of Jakarta find themselves impacted by urban transformations aimed at mitigating the risks associated with flooding (Webber, 2017, para.4). One of the projects supported by the Indonesian government is the construction of a huge wall that will close Jakarta Bay and affect flood risk reduction (Webber, 2017, para.4) "The National Capital Integrated Coastal Development (NCICD) programe", as the project is called, is expected to cost Indonesia $40 billion (Sherwell, 2016, p.22). The project is supported by the government of the Netherlands and, in addition, the design and construction belong

to a Dutch-led consortium (ibid, par.23). The project involves the construction of a colossal waterfront city and a wall, shaped to resemble a garuda - the mythical bird that is the country's national symbol (ibid). Nevertheless, there is a lot of criticism swirling around this project, due to the huge costs that will be incurred in building such a massive structure (ibid, par.27) In addition, there are mass evictions of traditional fishing villages and waterfront communities located off the north coast (ibid, par. 25) Many local scientists and residents also mention that this outlandish project could bring environmental and social disasters. Environmentally, because the underwater ecosystem will be destroyed, and socially, because traditional villages are razed and their communities have to move to another part of the city (ibid, par. 27).

Photograph 3. NCICD (n.d), Jakarta's Great Garuda flood wall

The construction of the wall, while affecting pollution and damaging the underwater environment, is taking work away from local fishermen who have been fishing in the area for years (ibid, par.56) As one of them said: 'We're the ones who live and work here, but nobody is consulting us about our futures. The elite, the politicians, and the

rich, are making the decisions, but they don't care about us or understand us" (ibid, par.58). It is a perfect example of the Environmental Justice Theory, where one social group is marginalized and used, while the other gains more power and benefits. Jakarta's Great Garuda Project has a very large number of influential investors who have put huge money into developing the area, building high-rise buildings and luxury properties, with a vision to expand in the near future (ibid, par.52). Some local residents believe that given a choice between supporting the development of poor communities in the area or accepting huge investor money, the Indonesian government chooses to support the rich and influential ones (ibid, par.67). Even within the same region, the distribution of climate change impacts can vary among social groups, as illustrated by the case of Jakarta's north coast.

As mentioned before, environmental justice theory refers to the fair distribution of environmental benefits and burdens, particularly in marginalized communities. Some of the communities in Jakarta experience the effects of climate change completely differently than others. One of my interlocutors, Sandy, shared a valuable insights regarding this topic:

"When you're talking about the locals in Indonesia, they are very segregated… It's very diverse in a way that there are people that come from lower income classes and there are also people who come from a higher income class, like anywhere else. But since there's a lot of inequality, people who live poorer are stuck in certain districts that always have flooding and they usually stay there forever. But there are also areas which have never been flooded. For example, if you go to Central Jakarta some districts never have any floods and in some others floods are always happening. And this is not a new problem. This has come from like 20 years or 10 years, where flooding already was happening. So climate change, obviously, plays a huge role and amplifies this. But also at the same time how the city is managed with pollution, plastic waste and everything else, and how we build certain districts also plays a big role in how flooding happens in Jakarta" (Sandy, appendix, p.8)

Later on, he added that the people's approach to addressing flooding primarily involves selecting the appropriate governor through the voting process (ibid, p.9). Consequently, whenever there is a gubernatorial election, flooding becomes a

significant political matter that garners attention. The reason behind this is the fact that solving the issue of flooding requires collective efforts and cannot be achieved individually (ibid). It necessitates substantial government funding, the construction of new infrastructure like roads and dams, and the creation of additional districts to relocate people to safer zones (ibid). While politicians discuss these matters in the news, the question remains about the actual impact of such news on the public. Simply reporting something in the news does not guarantee that people will pay attention to it or comprehend its significance (ibid). Many individuals resort to praying and hoping due to the repetitive nature of flooding incidents (ibid). As Sandy mentioned, although there are trustworthy news channels in Indonesia, people tend not to delve deeply into the information presented (ibid). This lack of engagement can be attributed to limited access to information and education in the country. Merely stating something in the news does not automatically ensure that the majority of the public will grasp the importance of the problem (ibid). Sandy, belonging to a middle upper-class family, acknowledges the existence of bias influenced by factors like race, ethnicity, religion, income, and family background in the reception of news by the public (ibid). He recognizes his privilege of receiving education and keeping up with the news, which is not widely accessible in Indonesia. This situation poses a significant problem. People's response to environmental crises heavily relies on their socio-economic class (ibid). According to Sandy, those who are financially well-off tend to possess the better education and awareness, leading to increased concern for environmental issues (ibid). On the other hand, individuals directly impacted by flooding and climate change may not possess the needed knowledge to understand the importance and the impact of climate change, but they are still concerned about this issue, because it personally affects them (ibid). This understanding contributes to the grassroots movement in Indonesia (ibid). Regardless of the background, those affected by environmental disasters always care about these issues. In the case of flooding in Jakarta, it prompts eco protests and demands for change. As my interlocutor mentioned, in some areas in the city, which are routinely flooded in February, this issue has become normalized in terms of precautionary measures. Nowadays, it is essential to prepare and plan because flooding is an unavoidable reality (ibid).

Sandy's statement highlights the segregation in Jakarta, with different districts that always experience flooding and those that never do. According to his knowledge, this segregation often aligns with socioeconomic disparities, with lower-income communities being disproportionately affected by flooding and trapped in flood-prone areas. He also discusses the role of news and media in shaping public understanding and responses to environmental crises. Limited access to information and education in Indonesia is noted by him as a challenge, affecting people's awareness and engagement with environmental issues. It is also important to note the fact that Sandy mentions that politicians deal with the problem of flooding in areas inhabited by poor communities mainly when elections are approaching and their votes are needed, as the "lower social group" makes up a huge part of Jakarta's population, and thus their votes are of great importance. Whether politicians, after the elections, deliver on the promises given to this part of Jakarta society is another matter and it will be discussed later in this thesis.

Lack of education among local poor communities results in a partial lack of understanding of the global warming problem affecting Indonesia. Nevertheless, it is not the only problem here, according to another interlocutor. Fabian, during our conversation, mentioned an important sentence showing another aspect of the lack of understanding or the lack of concern about global warming:

 "(...) many of the people in Jakarta are in survival mode, many of them have just enough income. So they care less about the environment, they just want to survive. Come to Jakarta and survive and get some money. I think being rich is a very important aspect here. Maybe not being rich, but being financially in a good spot is a very important thing. And the rest is secondary." (Fabian, appendix, p.5).

Later on he added:

"I don't think they really are at the level that they can care to take action about it. There are many Kampungs, even the ones in the islands, that are part of Jakarta. So once I went to those islands, and people there, they threw plastic bags into the sea. And I am not sure if they were informed, like: 'Okay, well, it's not a good idea, because plastic doesn't decompose, and it will get stuck on some fish'. I think they're

not in the state where they can participate. Something needs to happen so that they are lifted above their poverty level, so that they can have enough and then start caring about something else." (Fabian, appendix, p.6).

To summarize this statement, people must have the space and capacity to care about environmental issues. In a situation where they don't have the means to live, a roof over their heads and all they think about is survival, it's hard to expect them to segregate garbage or be concerned about clean air. In this situation, education and awareness-raising, as well as government assistance to improve the economic situation of this part of society seems to be extremely important in the process of dealing with climate change in Jakarta. At the present time, the wealthier part of society, with education and steady income, understands the causes and consequences of climate change affecting Jakarta and can prevent it in some way. At the same time, they are usually not directly affected by floods or river pollution and lack of garbage segregation and disposal. Therefore, according to Fabian, they are not concerned about making long-term changes towards creating a better future for the city's residents. The people who are directly affected by the floods are residents of poor neighborhoods who are protesting and uniting to save their homes and themselves from the consequences of climate change. However, they don't have the resources or the knowledge to make any meaningful changes, other than to vote for the right governors and have faith that he will keep his promises. This disparity in resources, knowledge, and the ability to address environmental issues reflects the core principles of environmental justice theory, which seeks to address the disproportionate burden of environmental hazards on marginalized communities and advocate for equitable distribution of environmental benefits, burdens and decision-making power.

Analysis of Jakarta's kampungs and their communities through the Resistance Theory

Instead of recognizing kampung as a unique way of life, and finding ways to support local people in their natural functioning - by for instance providing access to basic services or helping to curb property destroying floods - Indonesian governments have over the years chosen the path of forced evictions of the inhabitants of these areas (Irawaty,2018,p.5). Officials say that the mass evictions of the local poor are linked to the fact that their houses were located in an area threatened by floods, while the residents were in direct danger from the inundations. Nevertheless, "the suspicion is widespread that they were evicted to make way for tourist projects in an area near old red-tiled Dutch buildings of the colonial era, rather than to keep rivers flowing and combat flooding" (Sherwell, 2020, par. 87). Using an example, located on the north coast, the Akuarium neighborhood was completely demolished in 2016. Mass protests by the population in front of the town hall did not stop the planned project (ibid). Today, the site resembles a post-war zone. Some of the population has moved to other places, but some have rebuilt their metal and brick houses and are still trying to find a way to live in this area (ibid, para. 89). The authorities claim that kampung residents are illegally occupying government land. However, many of them insist that they are paying annual dues to the municipal agencies in charge of the land. Some have even received bank loans for their houses, which should not be possible if it is illegal to settle there (ibid, para.86).

When the demolition happens, kampung residents are forced to relocate to, among other places, social housing called runasawa (Irawaty,2018, p.5). Most of them, however, do not want to relocate, due to several aspects, such as distance (runasawas are located further away from the city) and high rent, which contrasts with the low and unstable income of these people. Runasawas also do not provide adequate conditions to carry out 'home business', which is handled by a large part of the population living in kampungs (Irawaty,2018, ibid). Moreover, it is difficult to work in the tourism and finishing business, which is the base of local communities' income, when they are being moved far away from the water (ibid).

Those communities faced multiple challenges caused by polluted rivers, including the accumulation of garbage and health problems. Despite these difficulties, they are hesitant to relocate to other areas. According to my interviewee, Mario, it is also worth considering that the traditional values and family ties affect those people's decisions to protect their houses. As he said:

"(...) sometimes they have lived on these lands very long, it might be inheritance from their great, great grandfather. And they will say : "Oh, this house that I'm living in, on this land, my ancestors have been living here for generations" and it's hard for them to just leave the legacy. That leads to their traditional values" (Mario, Appendix, p.3).

The fishermen living in Kampungs shared that they could not recall how many times their homes were destroyed, but they rebuilt their homes repeatedly in the same area because it is "the place that we knew. We are fishermen; fishing is the life that we know" (Padawangi, 2012, p.331). As fishermen, their livelihood depended on the area, and they refused to abandon it. Consequently, some families had to move within the region several times due to the repeated demolition of their homes (ibid). They showed resilience to the adversity they faced from the government and were willing to fight to keep their existing homes or, when protests did not help, they found new ways to stay in the neighborhoods to which they were attached.

Residents, along with the help of various non-governmental organizations, have been fighting for decades to stop forced evictions. They express their discontent with various protests, by proposing alternative designs or even by engaging in electoral politics (Irawaty,2018, p.6). Protesting can serve as an act of resilience by demonstrating one's commitment to their beliefs and values in the face of obstacles (Maharana, 2021, p.159). This can be a meaningful way to show a willingness to fight for what is right, even in the face of criticism or potential negative outcomes (ibid). Additionally, protesting can bring awareness to important issues and drive efforts for change, which can have a transformative impact on those involved, providing a sense of empowerment and motivation (ibid). Years ago, forcing kampungs residents to relocate was mostly argued by the desire to clean up the city and eliminate areas that could be seen as 'slums,' but currently it is also dictated by

the fact that these people in particular are victims of flooding and rising waters due to climate change (ibid).

One of the forced evictions occurred on October 22, 2003, during the Eid holiday, when authorities unexpectedly demolished homes in Kali Adem, one of the Jakarta kampungs (Padawangi, 2012, p.332). The reason given was the 2002 flood and the area being part of a river dredging project. Following the incident, Kali Adem residents who owned the Jakarta identity cards were placed in the Cinta Kasih Muara Angke Apartment (ibid). Those without Jakarta identity cards received financial assistance to return to their villages. They received approximately US$55 from the authorities and aid from the World Bank (ibid). However, within six months, some community members placed in the apartment returned to the North Coast area (ibid). This was primarily due to their inability to afford the rent and the lack of suitable space to dock their boats and store their fish (ibid). The urban poor and working class always prioritize what is urgent, valuable, and important based on their work and their daily needs. Their decision to return to areas with significant environmental risks did not indicate a preference for such challenging conditions but rather a response to immediate necessities (ibid).

Despite their disadvantaged circumstances, many of these communities had structured programs that fostered a sense of belonging. In Muara Baru, several nongovernmental organizations implemented programs to mobilize community members (ibid). For instance, Kalyanamitra, a women's NGO, has been empowering women in Muara Baru since 2008 by offering sewing and handicraft classes. LBH APIK (APIK Legal Aid Institute) has provided legal assistance, particularly in cases of domestic abuse, since 2004 (ibid). The Urban Poor Consortium has been actively involved in Muara Baru, focusing on community empowerment in terms of water services, displacement, and birth certificates. They also promoted savings initiatives and children's learning groups. Similar programs were extended to other impoverished communities along Jakarta's north coast by various NGOs (ibid).

An illustration of the resilience exhibited by the local population in response to governmental regulations and environmental hazards can be found in the case of Kampung Tongkol in Jakarta. In 2015, when the city hall proposed widening the river

along the densely populated Kampung Tongkol, residents rallied together to prevent mass evictions (TDC, 2022, 00:19:51). Through their collective efforts, they willingly cut off five meters off their homes, satisfying the officials' requirements and allowing approximately 250 out of 300 residents to remain (ibid, 00:20:08).

Through their resourcefulness and determination, by coming up with this idea, they created a space between the river and the houses, providing a safe pathway for people and mitigating the risk of flooding (ibid,00:20:15). One resident of the kampung eloquently expressed their hope that similar approaches could be adopted in other Kampungs, stating, "I hope in the future, what happened here can happen in other villages. If informal villages, slums are given the opportunity to be involved in making the proposals and decisions, and the government provides space for dialogue and negotiation, there will be a solution" (ibid, 00:20:11).

Other Kampung's individuals devised their own solutions to combat flooding, such as repeatedly elevating their houses by a few meters and reinforcing the base with additional concrete (ibid, 00:06:49). These examples serve as compelling evidence of the ingenuity and creativity shown by impoverished communities when confronted with the consequences of climate change and governmental policies. Their ability to find innovative and adaptive solutions demonstrates their remarkable resilience in the face of adversity.

Analysis of Jakarta's kampungs and their communities through the Recognition Theory

During the interviews I conducted, my interlocutors often mentioned the lack of recognition of the Kampung people by the government or Jakarta's society. In his theory on Recognition, Honneth talks about legal and political rights in civil society, love and friendship in the family, and social esteem (solidarity) in the public sphere (Thomas, 2012, p.456).

Rights

In Honneth's framework, rights refer to the respect for persons implied in modern legal relations (ibid). The statement of my interlocutor, Sandy, highlights the issue of rights and inclusion of individuals in the context of development projects in Jakarta:

"Hmmm, when you're talking about development, like, Okay, you want to build an apartment complex somewhere in Jakarta, you want to get permission from the individuals to, for example, relocate them somewhere else, because they need to be included. Right? Yeah. And that's usually where conflicts appear. Essentially, they lived there for generations. There are a lot of protests, and there's a lot of debate going on in this particular topic. I would say they are not involved from the very beginning. They are involved at the end, when they (the companies) have already decided: "we're going to build this here and now, how should we do it?" Because people don't have the economic opportunities to buy apartments and to build homes, they build illegal homes, above the rivers and near the river site, which is dangerous as hell. And it's illegal, because they don't have the license for it. That's been going around for years, for generations. And now when we want to relocate them, that becomes a problem, because it's their entire life. And if you want to move them, there will be protests. And where should they go? So yeah..Protesting is an involvement. But that's not really ideal. The government tried. They tried a couple of years back by giving public housing, but people don't want to move too far away. Some of them don't want to move because it is expensive, because moving also requires capital, right? And some just prefer to live like this because it is their way of living" (Sandy, Appendix, p.11).

Firstly, Sandy mentions the need to obtain permission from individuals and relocate them to another place. This aspect aligns with the idea of recognizing individuals' rights and respecting their autonomy in decision-making processes that affect their lives. It implies that the inhabitants should be involved and included in the decision-making from the beginning, rather than being informed or consulted only after the decision is made. Furthermore, his statement emphasizes the conflicts that arise during the process. These conflicts can be seen as a result of the struggle for

the recognition of rights. As stated in the theoretical part, Honneth characterizes the fight for recognition as a series of social actions, such as protests, where marginalized groups challenge the unjust treatment and negative stereotypes imposed upon them by the more influential and dominant groups (O' Brien, Maynooth, 2013, p.66). Therefore, the inhabitants who have lived in the area for generations, may feel their rights and way of life are being disregarded or undervalued by the companies and authorities making the development decisions. This highlights the importance of considering and respecting the historical and social context of individuals in order to address their rights adequately. Later on, Sandy touches on the economic aspect of rights. He mentions that some people cannot afford to buy apartments or build homes legally, leading them to construct illegal homes in unsafe areas. This economic disadvantage limits their options and creates barriers to exercising their rights to safe and adequate housing. It further illustrates how socio-economic inequalities can affect the recognition and enjoyment of rights.

Another interviewee, Fabian, also mentioned in our conversation the problem of Kampung residents illegally occupying land. Many of them have documents proving that they have purchased a house in this area or paid monthly dues to live on that land (Fabian, Appendix, p.7). These fees, however, have not been collected by government units, which creates a legal issue, as Fabian mentions in his statement below:

"I personally think that the government or the politicians only use these people to get votes, they don't care about the lives of the poor people. If you read the recent stories of Jakarta, there was this fire that happened in one of the lower oil refineries in the North East. So the story is… because of the fire one Kampung burned, and some people died. It's a complicated problem. So initially the politicians said that the Kampung was illegal. The oil company had a rule that people can't live too close to the refinery, because it's dangerous. What if there's a fire? But people lived there anyway. They live there illegally. And one day there was this politician who wanted to be a governor. He's the current governor. And he promised, when he was running for governor, that 'if I were your governor, I would make it legal'. I cannot see or believe that it was for the benefit of the people. So that they can live legally. But I think it's more of a political move. And now that the Kampung was burned, I do not see any

good responses from the governor or the politicians (...). Many people are taking advantage of this system. So in the 80s or 90s, when Jakarta was growing rapidly, many people came because they thought they could make money. And some of them found some illegal settlements. And they paid not to the government, but to what we call a Preman. It's the local boss, somebody who's powerful, may be actually affiliated with some government, but not part of the government. And they control the land. And they allow people to live on that land, to build on that land. And the people who live illegally on that land pay this people or person. But because they're not part of a government, it creates this complicated situation. Now, those people who paid for the land illegally, they don't get protection from things like fire or flood (Fabian, appendix, p.7).

My other interlocutor Sandy also mentioned the organization and the person of Preman in our conversation:

"(...)They're sort of gangsters and they're everywhere. Essentially, what they do is that, if you don't want them to wreck your house, you need to pay a fee. Sometimes they are violent. I don't exactly know how they work, but we can see them on the streets. If you, for example, if you open a store or a coffee shop somewhere in Jakarta, or somewhere in the near areas within their territories, they will sometimes come at you and ask you for a fee for protection and keeping the area safe. I think that's the same logic that applies to Kampungs. Because they're illegal. They cannot report to the police because the police will say like; "why the fuck do you live there?". And at the same time, they become victims of Preman because nobody's protecting them." (Sandy, appendix, p.11)

Fabian, in his statement, criticizes the government and politicians, suggesting that they only use the Kampung' people for political gain and do not genuinely care about their well-being. This highlights a potential violation of the right to be recognized and respected as individuals with equal worth and dignity. As I mentioned in the theoretical part, Honneth argues that social respect and self-respect, is dependent on the ability to claim one's rights through legal processes (Thomas, 2012, p.456). Therefore, without recognising those communities's members as legal figures, who have rights that should be respected, they might not feel valued or acknowledged.

His statement mentions a fire incident in Kampung that resulted in deaths. The response from the governor and politicians is seen as lacking or insufficient. This raises questions about the fulfillment of the right to protection and security, as well as the right to appropriate responses and support in times of crisis.

The statements of both interlocutors also touch upon the existence and involvement of "Preman" in controlling and exploiting the areas of Kampungs. The situation creates a complicated dynamic where people living illegally do not receive protection or support. This raises concerns about potential violations of the right to proper housing and the right to live in a safe and protected environment, free from the presence and influence of gangsters. On my question regarding the degree of development and the rules of this criminal network, Sandy replied:

"Well, some of them are organized. Some of them actually give life insurance, so if you get killed on the streets, the organization will ensure that your wife and your kids will be paid" (Sandy, Appendix, p.11).

In my understanding, it is the role of the state to provide help and care for those who have lost loved ones, and more importantly, the state should provide protection for citizens so that they are not murdered on the streets. However, it is clear from the above statement of my interlocutor, that the criminals who pose a danger are at the same time performing functions belonging to the state, such as providing land for settlement, collecting 'taxes' from tenants, or providing protection for them.

Overall, these statements illustrate the challenges faced by the inhabitants of informal settlements in Jakarta regarding their rights. They show situations where the poor and marginalized are excluded, exploited, and denied their rights to recognition, protection, and adequate living conditions.

Moreover, there are reports showing that during forced evictions, human rights are violated and violence is used against the evicted population at the hands of gangs working with government services (Human Rights Watch, 2006, p.2). A report published by Human Rights Watch (HRW) in 2006 shows "how government security forces, at times beat or mistreated them [evicted residents] before destroying their

homes and possessions. In the worst cases, witnesses recount how security forces opened fire on communities and set buildings alight while people (in two cases, including children) were still inside" (ibid). The majority of residents have expressed their dissatisfaction with the lack of advance notice or clear communication before their homes were demolished (ibid). They claim that the authorities responsible for public order did not allow them sufficient time to gather their belongings and vacate their houses. Nearly all of the residents report either receiving no compensation whatsoever or receiving such meager compensation that it did not adequately compensate for the losses they incurred (ibid).

According to the HRW report, the existence of gangs and youth organizations in Indonesia, which derive their income from illegal activities and exert control through the use of force, is a long-standing phenomenon (ibid,p.16) During President Soeharto's regime, these groups served as enforcers for the government and have subsequently evolved into influential social and political figures (ibid). After the downfall of the regime, these gangs have become increasingly organized in urban regions, often playing the role of "protectors" of the marginalized communities. These criminal gangs establish far-reaching territorial networks and maintain affiliations with influential figures within the nation's political and business circles, affording them a level of safeguard against legal consequences (ibid).

Love and Solidarity

Honneth's concept of love emphasizes the formation of primary relationships characterized by strong emotional bonds within a small group (Thomas,2012, p.456). These relationships involve intricate emotional dynamics, including affection and trust. Solidarity, on the other hand, is understood as an interactive relationship where individuals empathize with and value each other's diverse ways of life based on a shared set of values. It fosters a sense of brotherhood that combines a genuine concern for the well-being of others (ibid). My interlocutors talked a lot about the sense of bonding, unity and belonging among kampung residents, who, in spite of, or maybe because of the difficulties they face, try to take care of one another.

As Sandy said about his experience of living among the kampung's community:

"Actually, they are really lovely. They're very tight knit communities where they meet every week, they meet every night, people know each other. In one district, you know who lives there, you can talk to them and everything else. Also, some people are really saying that they don't lock their doors, because nobody's going to steal there. As inhabitants…they are very different then the rest of the people who live in Jakarta. They don't have access to education, they don't have access to water, they don't have access to electricity in some areas" (Sandy, appendix, p.12).

Another interviewee, Fabian added:

" (...) it's a different feeling...how people talk to each other. And they care about each other, a bit too much sometimes, like how they address themselves and share their opinions about each other. I find it a bit too much, but to some extent it's nice that they support each other whenever there's a kid being born, the whole Kampung got together and had a feast. So that's nice. Small things are celebrated. Very tight social support. And I think it also happens because the government doesn't provide much support for the individual citizens (...) (Fabian, appendix, p.8).

According to them, the community settling in Kampungs is warm and open, which in light of their living conditions or the problems they face in their daily lives is quite remarkable. In Jakarta, where the shaping of urban spaces is driven by the pursuit of capital accumulation, the value and significance of these interactions remains unnoticed. Perhaps because the residents of the poor neighborhoods do not feel or recognize love and solidarity from the government or society - shown through respect, understanding or recognition of rights, they find these approaches within their own community. According to Honneth's theory, solidarity is easier to achieve within a group with shared goals and this is an example of that. This community shares the same goals, way of life, traditions and they occupy the same space, which provides them not only a roof over their heads but also a sense of belonging. The tight-knit communities in the Kampungs exhibit strong social bonds and a sense of togetherness. People in these communities regularly meet and have close relationships, demonstrating the emotional attachments and connections

emphasized in Honneth's concept of love. They recognize each other as individuals and as a group, in which they feel united and valued.

Conclusions

To summarize, the analysis as well as the whole thesis aim to highlight the challenges faced by poor communities living in kampungs in Jakarta, specifically on the north coast, due to environmental issues such as flooding, pollution, and a lack of basic services. The conclusion of this thesis is that environmental justice is an issue in Jakarta, particularly in marginalized communities.

To address the research problem of this thesis, which deals with the inclusion of impoverished local communities in Jakarta in coping and adapting to the consequences of the climate crisis affecting the city, as well as the impact of government policies on these communities with regard to climate-related disasters, it is necessary to look into the actions taken by the government. In particular, the government has focused on investing funds and allocating assets to tourism-oriented ventures, portraying the livelihoods located along the city's northern coast as highly desirable. Unfortunately, this approach does not take into account the long-term presence of the local population, whose deep-rooted ties to the land span across generations and whose entire existence revolves around this particular geographic location due to occupational and community factors. Kampung residents are being forced to relocate to social housing, but they often refuse to move due to several reasons, including distance, high rent, and the inability to carry out home businesses.

The limited educational opportunities and knowledge available to Kampung residents partially deprive them of the opportunity to actively engage in the fight against climate change in their city and assert their rights in the face of the ongoing climate crisis. Moreover, their financial situation and direct survival concerns make it difficult for them to get involved, as their main priorities include securing safe housing and a stable livelihood. As a result, they may show less concern for issues such as keeping rivers clean or segregating waste, which can affect negative public perceptions of

their communities. Additionally, due to their difficult position, the government often exploits their rights, forcing evictions and making promises to address their needs only if they solicit their votes during elections. Honneth's theory of recognition refers to the struggle of marginalized groups who oppose unfair treatment and negative stereotypes imposed by dominant groups. I perceive the Kampung communities as a great example of that, as they fight for their rights, remain united, and support each other through cooperation with volunteers, journalists, and various organizations. Additionally, the residents of Kampungs in Jakarta form a community that exhibits strong social bonds and a sense of togetherness. They rely on each other for support and care because they feel unsupported by the government or society. This community exemplifies Honneth's concept of solidarity and love achieved within a group with shared goals and emotional connection.

While answering the research questions, it is also important to highlight the unequal distribution of environmental benefits and losses by social class, a disparity that disproportionately affects impoverished communities that are already vulnerable. They are the ones most affected and impacted by the climate crisis, and they are the ones who must face and adapt to its consequences the fastest. Despite the negative effects of the climate crisis and government policies, the people of Kampung are showing resilience and unity as they try to educate themselves and find new ways through which they can show the significance of their voice.

Based on the information presented, it is evident that local impoverished communities in Jakarta are often marginalized and excluded in efforts to address and adapt to the consequences of the climate crisis. The issue of flooding, exacerbated by climate change, has been a persistent problem in Jakarta for several years, particularly impacting those residing in close proximity to the shoreline. These communities have resorted to temporary solutions and mutual support to cope with the situation, but the severity of the problem continues to take a heavy toll on them.

The government's response to this issue primarily revolves around evicting these communities and providing alternative housing options. However, research indicates that this approach is neither sustainable nor conducive to long-term solutions. Displacing these individuals to distant areas of the city hampers their well-being, as it deprives them of their livelihoods, such as fishing, and disrupts their social bonds.

Additionally, the construction of a large sea wall, prompted by rising sea levels, further impacts the Kampung people by limiting fishing grounds and disrupting the natural habitat of fish.

Moreover, answering the second research question, the policies implemented by the government to address climate change in the city disproportionately affect impoverished communities in a negative manner. Their voices are generally unheard, except in cases where protests or public exposure of eviction incidents bring positive outcomes. The government often perceives the Kampung communities as second-class citizens who lack economic productivity, education, and influence. As a result, they prioritize the interests of the upper-class citizens and tourists, as they are the ones who attract the attention of the wealthy investors coming to Jakarta. In pursuit of economic gains, the government frequently resorts to the eviction of local poor inhabitants from their homes and lands, often through questionable legal means, in order to construct hotels, spas, or exclusive apartments. In doing so, they prioritize financial opportunities over the basic right of these communities to secure housing.

Overall, it is apparent that the local poor communities in Jakarta face significant challenges in their struggle against the impacts of climate change and governmental policies. Their marginalized status and lack of representation contribute to their vulnerability and the prioritization of economic interests over their well-being.

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