

Flooding as a Natural and Moral Evil: A Philosophical and Ethical Analysis of the Ogunpa Floods in Ibadan

by handimanlibrary@gmail.com 1

Submission date: 19-Aug-2025 05:00PM (UTC+0800)

Submission ID: 2728585662

File name: 125-514-1-SM.docx (41.19K)

Word count: 6810

Character count: 39083

Topic: Flooding as a Natural and Moral Evil: A Philosophical and Ethical Analysis of the Ogunpa Floods in Ibadan

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Abstract

This study investigates the Ogunpa floods in Ibadan as a manifestation of both natural hazard and moral failure, situated within environmental ethics and philosophical discourse. Flooding, though natural in origin, is increasingly intensified by human actions such as deforestation, poor waste management, and urban planning violations, rendering it a subject of ethical scrutiny. While existing research focuses on hydrological and engineering perspectives, a critical gap remains in integrating philosophical frameworks, particularly free will, determinism, and moral responsibility into flood analysis. This research asks: To what extent are recurrent floods in Ibadan a result of human moral failure rather than mere natural occurrence? Employing qualitative analysis, the study draws on philosophical reasoning, environmental ethics, and case study methodology, engaging with Urban Resilience Theory to evaluate systemic vulnerabilities. The key finding is that the Ogunpa floods are not purely natural disasters but are significantly exacerbated by avoidable human decisions, thus constituting a form of moral evil. The paper concludes that sustainable flood mitigation requires not only infrastructural interventions but ethical accountability and proactive governance. Recommendations include institutionalising disaster risk management, enforcing planning laws, and public education on environmental stewardship.

Keywords: Flooding, Moral Evil, Environmental Ethics, Free Will, Urban Resilience

Word Count: 200

1.0 Introduction

Flooding as a natural phenomenon is ³⁵ one of the major threats to human life and property (Jonkman, 2005: 157). In human history, the rate at which floods, alongside other natural disasters such as volcanoes, earthquakes, and hurricanes, affect mankind cannot be underestimated, not only in Ibadan alone but throughout the world. The 1931 Central China flood is one of the deadliest floods in history; it is believed to have covered ¹⁶ an area equivalent to the size of England and half of Scotland, and ¹⁰ the lives of around 52 million people were affected, resulting in the death of about 2 million people (Xiao et al., 1994: 12).

Another deadly flood that cost the lives of over 100,000 people was the ¹⁵ Hanoi and Red River Delta flood of North Vietnam in 1971. The 1999 Vargas mudslide (Geologic Hazards Team, 1999: 7) was another record of the flood ²⁷ that occurred in Vargas State, Venezuela, on 14–16 December, where ¹⁰ tens of thousands of people were killed, thousands of homes were destroyed and led to the complete collapse of the state's infrastructure as a result of torrential rains which resulted in flash floods and debris flows. Even if they are not human-caused, natural disasters like earthquakes, tsunamis, and illnesses cause great grief and suffering and raise doubts about God's creative ability (Plantinga, 1977:11)

Floods are a natural phenomenon that not only claims lives but also results in property loss; they are believed to affect ³² more people than any other natural disaster. Flood destroys plants and prevent harvesting, resulting in a food shortage for plant and animal consumption. In some cases, this leads to famine, causing death, which is considered a metaphysical evil or other negative effects. The entire harvest of ⁶ a country can be lost in extreme flood circumstances (Bhowmik, 1993:53). According to Nunez (2019: 3), a writer and frequent contributor to National Geographic, "Floods

⁷ cause more than \$40 billion in damage worldwide annually. In the U.S., losses average close to \$8 billion a year. According to Kansal, Kumal, and Prashant, (2017), flood as a natural disaster affects almost all aspects of human activities, and the effect cannot be overlooked in an affected society as it conceals both primary and secondary effects in the normal, psychological and physiological wellbeing of man in the immediate society (Kansal, Kumal and Prashant, 2017: 1697).

Floods are the most common natural disaster, generating considerable property, infrastructure, and business losses and increasing the risk of disease, ²¹ affecting over 2.8 billion people and resulting in over 200,000 deaths over the last three decades. Therefore, one cannot deny that flood is a form of evil (Olanrewaju et al., 2019: 11) An example of it is the Ogunpa flooding in Ibadan, which this research tends to study as the reoccurrence of 1980 is said to have claimed many lives and properties, thereby rendering many people homeless and poor (WHO, 2012: 5).

2.0 Theoretical Framework- ⁹ Urban Resilience Theory

Urban resilience is the ability of any urban system to maintain meaningful and effective sustainability and continuity in the face of any given hazard (McGill, 2020:374). So, a resilient city is often characterised by the ability to ⁹ respond to hazards, whether natural or human-made, sudden, slow-onset, expected and unexpected (Bhattacharya et al., 2015:31). Before a city can be considered to be resilient, it must possess ¹¹ the ability to protect and enhance people's lives, secure development gains, foster an investible environment, and drive positive change (Högberg, 2020: 11). In academics, the focus or mainstream of discussion around urban resilience is often based on three primary threats, the two of them are seemingly related to the focus of this study which is on flooding, a form of natural hazard or natural Evil as it may be considered in the environmental and

philosophical domain respectively (Zhang, & Li, 2018: 141-148). Those three main areas are natural disasters, climate change, and terrorism.

In particular, ¹² the theory of urban resilience to floods challenges the resistant approach such as the construction of dams, levees, and channelization, which are not a long-term solution to the hazard of flooding because they fail to address future events that are expected to increase due to climatic changes and other uncertainties that may arise from human nature (Liao, 2012; 46). This theory seeks to look for better solutions beyond the measures that are often taken to prevent further occurrences of flood hazards in arrears that are prone to it (Moser, Norton, Stein & Georgieva, 2010: 2). The main argument of this theory is that cities such as Ibadan which has a long history of the Ogunpa flooding (which gained national and international notoriety in the floods of ¹⁴ 1960, 1963, 1978, 1980, and 2011 when many lives and properties worth billions of Naira were lost) should be able to tackle this natural reoccurring hazard with measures more than mere construction of dams and river channels, which had not in time past provided ultimate result in preventing further event from reoccurring.

In urban resilience theory, cities can tolerate flooding, revamp in the event of ²³ physical damage or socioeconomic disruption, prevent deaths and injuries, and maintain their socioeconomic identity by using ¹² periodic floods as learning opportunities to prepare for extreme ones (Mabrouk, Han, Mahran, Abdrabo, & Yousry, 2024: 5076). The four primary pillars of the urban resilience theory are recovery, transformation, resistance, and adaptation (Zeng, Yu, Yang, Lv & Sarker, 2022: 2481). However, it is essential to consider what happens when people block river channels, ignore official warnings about the risks of flood disasters, and refuse to build new routes for unobstructed water movement. If appropriate ³ steps are not taken to mitigate the effects of flood catastrophes,

seek adaptive characteristics, and change existing flood risk measures, more disastrous consequences might result.

3.0 Conceptual Framework

3.1 Concept of flooding

Flooding is ²⁸ one of the deadliest natural disasters that poses a major threat to human life and property. According to Kale (1998: 7) flood is a natural phenomenon that has been threatening mankind right from the beginning. It is on this note that ⁸ (Living with Risk, 2006:6) opined that the frequency of natural disasters such as flooding increases over the years and often results ⁴ in loss of life and property and the destruction of the immediate society. This puts more people at risk, making them more vulnerable to disasters.

Flooding is not a disaster that affects a particular environment alone, but rather a phenomenon experienced globally. Its occurrences and reoccurrence, due to excessive and prolonged rainfall are becoming alarming and the concerns of research organizations and government agencies as it makes the effect more alarming and the centre of attraction and concentration in newspapers and magazines ³ in many countries of the world including Nigeria, especially during the period of a heavy downpour (Adeerogba, 2012: 17). Kelman & Jonkman (2005, 75) posited that flood disasters usually occur in an area that is usually dry and often ¹⁵ disrupts or interferes with human and social activities.

Flooding is a natural occurrence that endangers human life and well-being by inflicting structural damage, causing the loss of lives and property, interrupting socioeconomic activity, and devastating agricultural land (Linkha, 2024: 191-195). It can also be caused by human actions such as drainage blockage, excessive pavement, deforestation, and disregard for nature and the environment, which leads to infrastructure being built on accessible land without regard for its

qualities. This view is also held by De Bruin (2006, 1). However, Nott (2006, 54) Nott (2006, 54) argued that a flood event is not deemed a natural hazard until it endangers human life and property.

Floods, the most common natural disaster, affect approximately 2.8 billion people worldwide and have claimed over 200,000 lives in the last 30 years, with an estimated yearly cost of 6667 (Hashizume, 2013).

Like drought and desertification, floods are extreme hydrological events that pose a natural threat to Bam (2006: 21). They can seriously harm floodplains and stream channels and are brought on by heavy, prolonged, or excessive rainfall. Floods can supplant natural runoff pathways and are unavoidable. They are frequently brought on by heavy, persistent, or excessive rainfall (Nwafor, 2006). Floods exhibit several characteristics: their duration can vary, being long, short, or sudden, contingent upon the flood type (e.g., river flooding may evolve over days or weeks, while flash floods occur without warning); the onset may be either gradual or abrupt; and seasonal flooding patterns may be present Carter, 1991:1).

According to Douben (2006:1), populations have established settlements in flood-prone regions owing to advantageous geographic factors, including accessibility and fertile soil, which promote economic development (Dahlan, 2022:267). Flooding is often due to non-compliance with town planning regulations, negating the proper measures to prevent flood hazards. These include the building of illegal structure which blocks the river channels, lack of proper drainage systems and dumping of refuse in river channels (Theron, 2007: 27). Smith and Ward (1998: 17) argued for two losses that occurred during the aftermath of a flood, which are: the direct losses, which often occur immediately after flooding occurs, and result in damage to properties and other valuable infrastructures. The indirect losses are usually grouped as tangible and intangible losses, depending

on whether or not the losses are assessable in monetary value (Zavos, H. (2009: 193-197). Loss of life and ill health of the survivors are often considered intangible losses. Lind (2008: 143) emphasised that the losses encountered after flooding are diverse. Other than economic loss, there may be irreversible loss of land, historical or cultural values and loss of nature or ecological values.

4.0 Causes of Flooding

While floods are often considered natural causes, such as heavy or torrential rain, rainstorms, ocean storms, and tidal waves, African Wildlife (2000: 20) opined that human activities without regard for nature had turned recent flooding from natural causes to artificial disasters. Therefore, the causes of flooding can be ascribed to two primary ways: natural and human causes.

Some of such causes are:

4.1 Massive Rainfall

Mostly, heavy rainfall often renders drainage systems ineffective, thereby leading to a flood. The level of rainfall often determines the chances of flooding in terms of how heavy the rainfall is and how long it lasts. Ward (1978: 15) identified different types of rainfall floods, which often result from high magnitudes of rainfall. These include flash, single, multiple, and seasonal floods. Heavy rainfall in urban areas often causes flooding whereby storm drains, thereby flooding buildings, roads and other valuable properties. This often occurs because urban areas have fewer locations where the ground can absorb water. A flash flood caused by heavy rainfall leads to more catastrophic effects, such as loss of life and property, than other natural disasters like tornadoes, lightning or hurricanes (Collins & Simpson, 2007:19).

4.2 Deforestation

Cutting trees recklessly is considered one of the major activities of man that leads to floods. According to Kaimowitz (2004: 11), it is widely believed that human acts such as deforestation can

increase rainfall-induced flooding in different ways. One of the main reasons why this belief is held is due to a process known as evapotranspiration, which usually occurs through plants and trees, where water is returned to the sky, thereby reducing the amount of water, which can lead to flooding (Allen, R. G., Pereira, Howell & Jensen, 2011: 895). It is also believed that trees help reduce the risk of soil erosion, thereby reducing the chances of flooding by blocking the massive flow of rain (Pramova, Locatelli, Djoudi & Somorin, 2012: 587).

4.3 Climate change

Climate changes occur due to human activities and ³ poses a significant threat to humans, nature and the immediate environment, resulting in flooding. ³ Human activities such as deforestation, as stated above, ²⁰ are one of the major causes of flooding. They ⁸ also contribute to climate change by affecting the process of photosynthesis, which increases ⁸ the level of carbon dioxide in the atmosphere. Climate changes are considered to occur through external forcing such as an increase ³¹ in the emission of greenhouse gases such as fossil fuels, industrial influences and pollution, which depletes the level of the ozone layer and dust, which are often considered to be anthropogenic or ²⁵ changes in solar output, the earth's orbit and volcano eruptions which are often considered to be natural. Those climatic changes caused by human activities increase the risk of flooding since they lead to heavy rains, a rise in relative sea levels around most shores, and frequent increases in extreme sea levels (Bariweni, 2012). On this stand, Etuonovbe (2011) also categorises the causes of food as follows: Natural Causes: These are natural occurrences or factors that lead to flooding, such as ¹⁹ Heavy rainfall, Ocean storms and tidal waves, usually along the coast, a lack of lakes, and finally, silting.

5.0 Types of Flood.

Floods, as a natural phenomenon, are categorised based entirely on individual perspectives on flooding. Therefore, some categories of floods are based on size, causes, and effects. However, the categories of flood ²⁹ according to the National Oceanic and Atmospheric Administration (NOAA), 2013, will be adopted in this research. These categories are:

Flash flood: This type of flood often occurs due to heavy rainfall; it is considered the type of flooding that does not give enough time. When there are heavy downpours, the land will not be able to absorb enough water to prevent significant runoff, which will eventually lead to flooding. This type of flood also occurs due to Dam failure, and when this happens, it is usually much more significant than originating from rainfall or snowmelt (Costa, 1988).

River flooding is one of the most frequently occurring floods in the world, as it occurs every ²⁶ year in many parts of the world. However, it occurs on a lower time scale compared to flash floods. This type of flooding is often caused when water runoff in streams and rivers reaches a level that the bank cannot contain; it then overflows the bank, covering an enormous area, leading to various effects. Unlike flash flood, which gives little or no warning, river flooding, on the other hand, can be predicted over a long period before it occurs. One such is the Ogunpa flood in Ibadan, which is the main focus of this study.

Coastal flooding: This type of flooding is often said to occur when there is an inland push of ocean water. It is usually associated with specific abnormal synoptic phenomena, such as depressions, cyclonic storms, typhoons, and hurricanes, which cause large waves and increase the sea level.

Urban flooding: This type of flooding is commonly considered to occur on surfaces that are less able to absorb water due to inadequate drainage facilities, especially in developed areas. It can also be caused by coastal rivers or flash flooding.

Areal flooding: This type of flooding is similar to urban flooding. Urban flooding occurs mainly in urban settlements due to urbanisation, increasing water runoff, thereby threatening social and economic activities. Areal flooding is often caused by heavy rainfall in open fields and low-lying areas over a short period. It also occurs when there is prolonged rainfall, which often causes dangerous inundation, agricultural losses, and health issues as a result of infections and disease.

6.0 Brief Historical Overview of Flooding in Ibadan

Considering the vulnerability of the different Nigerian urban communities to flood, Ibadan, being the biggest metropolitan city in West Africa, is liable to consider this. Flooding has been an intermittent calamity in Ibadan since mid-1924 when the Ogunpa River flooded its banks because of extremely substantial precipitation, leaving the Ogunpa community in a formless and void. From 1951 to 2016, Ibadan encountered a few flood catastrophes with high externalities. Flooding has been accepted right around a recurring issue in Ibadan. The city experienced gigantic demolitions of properties and loss of lives emerging from the flood catastrophes of 1963, 1978, 1980, 1985, 1997 and 2011, which happened generally in August (Agbola et al., 2012).

The 1980 flood recorded the highest precipitation at 274 mm, succeeded by the 1963 flood at 258 mm and the August 2011 flood at 187.5 mm (Agbola, 2012). The August 26, 2011 precipitation began at 16:40 toward the evening and proceeded until 23:00 late around evening time and was joined by some high breezes of the rates of 65 km h⁻¹, the precipitation was generally exceptional in a 70-minute duration somewhere in the range of 18'; 10 and 19:20 when 75 per cent or 140.63 mm of the downpour fell. This meant a normal precipitation power of 127.84 mm h⁻¹ (National Water Resources Institute, 2011).

The Ogunpa River is classified as a ⁶ third-order stream, featuring a channel length of 21.5 kilometres (13.4 miles) and a drainage basin area of 73.3 square kilometres (28.3 square miles), affecting Ibadan's densely populated eastern region. The most dangerous and grisly occasion of flooding of the Ogunpa stream was recorded in August 1980, where not just over 500 lives of people were lost, but additionally, the monetary loss was around 300 million, and more than 5,000 people were dislodged by the most elevated record of rainfall over 274mm in the city. The previous flooding of a similar effect is that of 1978, which raised speculations and therefore aroused the then-state government in 1999 allotted 10 billion naira for a similar reason, and the project was then completed (Adewale et al., 2010).

Also, in ¹³ 1963, a two-day heavy rainfall between July 9 and 10 caused extensive destruction of properties ¹ along the banks of the significant streams that go through the city. Vegetation vehicles and structures were cleared and destroyed in June 1978 by the flood that followed a two-day heavy downpour that totalled 137mm. On the 17th of August 1980, the city was again flooded with river runoffs, numerous lives were lost, more than 1000 individuals were displaced, and property worth more than 407 million naira was damaged. Moreover, harm was done to streets, railroads and markets (Akintola, 1994).

Once more, in late August 1985, another flooding incident occurred in the city, leading to the destruction of properties worth more than ¹ 200 million naira. The story was the equivalent of May 1987, when floods destroyed properties worth over 151 million naira. Flooding activities were recorded ¹ in the city for three years. The flood in April 1990 demolished practically all the structures, estimated to be over 2 million naira, close to the significant waterways in the city, while ¹ 30 lives were lost, 100 houses were destroyed, and more than 15,000 were rendered homeless (Aderogba, 2012).

Others flood in Ibadan were those of 1995, 1998, 2001, 2003, 2007 April 2010 and June/July 2011; different instances of flooding were likewise recorded on August 26th 2012, and the most dangerous and most publicised flood that occurred in Ibadan happened on August 13, 2013, it was brought about by a twelve – hour heavy rainfall from the evening of August 12, through the next morning, when the downpour halted, more than 37 lives had been lost, 32,000 inhabitant rendered homeless and property worth over 300 million destroyed (Olawuni et al., 2015). The flood event in an urbanised zone like Ibadan is exceptionally high, making it an event that can be explored from a philosophical perspective.

7.0 Flooding and Environmental Ethics

How humans relate to their environment plays a major role in preserving the universe entirely. Therefore, environmental ethics, as a branch of ethics or moral philosophy, studies human beings and how their actions play a significant role. Humans and other organisms, such as plants and animals, are part of society; hence, humans' actions may affect them and the environment. Hence, it is presumptuous that man would relate wisely to his environment for it to be properly preserved. Human actions over centuries have been considered to be harmful to the four primordial elements of life, identified in Greek philosophy as fire, air, earth (soil) and water. The air has been poisoned with dangerous gases emitted in cars, generators and industries, the soil has been polluted with oil substances that are harmful to nature, and even the water, which is one of the essential essences for human survival, is filled with lots of pollutants, in such a way that our natural environment is in danger to our survival. The environment has been exposed to many dangers through human activities, which have often resulted in many effects which are not conducive to human survival (Michae & Philipesen, 2014).

The concept of environmental ethics was developed into a specific philosophical discipline in the 1970s due to the ⁷ increased awareness of the effects of technology, population growth, economic expansion and industries. It was developed with the main aim of educating man on the danger such activities can pose to him as a man may find it difficult ³ to survive if proper measures are not taken to address the issues (Gage, 1984: 45). It has been considered that man has overviewed himself superior to other living creatures (Anthropocentrism), which has been the mindset behind man's greediness, selfish and self-centred consciousness which is contrary to the concept of environment as every organism, plants and other animals are all important in sustaining ecological balance. For instance, Human activities such as deforestation are considered one of the major causes of flooding and ²⁰ also contribute to climate change by affecting the process of photosynthesis, which increases ⁸ the level of carbon dioxide in the atmosphere. Therefore, man needs to have a correct relationship with the environment (Ekwealo, 2012: 225). Ekwealo further emphasised that when a ⁵ man comes to this awareness, all the environmental problems that threaten his survival will not be a significant problem anymore because a man is fully aware, which makes him conscious of his actions (Ekwealo, 2012:225).

The effect of environmental hazards cannot be overlooked in contemporary society, as they pose a grave danger to man and the ecosystem. Humanity ⁵ is presently sitting on a time bomb on account of environmental effects, either in the form of weaponry and pollution and hazards such as flooding, drought, soil erosion, deforestation, volcanic eruption, earthquake, radio-chemical hazards, et cetera (Ekwealo, 2012:225). Unlike other disasters, such as volcanoes, earthquakes, and hurricanes, floods are often linked to ethics since they are tied to human decisions and environmental interaction (Zack, 2009). since flooding can be caused by human activities such as deforestation, industrialisation, technological development, urbanisation, burning fossils, deliberate opening of a dam or its collapse.

An example is ¹³ the Bagauda Dam near Kano, which collapsed in 1988, resulting in many environmental disasters. Therefore, ecological ethics could be closely linked with flooding since it is a natural disaster not caused by natural forces alone, but can be exacerbated by human actions and decisions in the immediate environment.

Agricultural activities linked to human activity include excessive grazing and cultivation, which eventually render the soil infertile and incapable of supporting vegetative growth, allowing water to run over the soil instead of seeping in, which can lead to such a catastrophe. (Zack, 2009: 12).

An example of human activity that went wrong is the construction of the world's largest dam in China, which displaced about 1.3 million people; not only that, but it also led to other environmental problems (Hvistendahl, 2008: 11).

Lack of vegetation allows water to flow on the soil surface rather than infiltrating into the soil, which increases the runoff, thereby leading to flooding. Urbanisation is another human activity that leads to flooding, in that it replaces natural soil surfaces, the permeable soil through which water can infiltrate the ground. Another environmental activity of man that leads to flooding, especially in Nigeria, is the lack of proper garbage disposal. Garbage is often thrown into the river channels, causing blockage, which often blocks the water flow, leading to runoff that eventually floods the surrounding area.

8.0 Flooding and Evil

Flooding is often considered a natural evil since it is believed to cause more harm to human lives and property than any other natural disaster. Ward (1978: 12), in his opinion, emphasised that the hazards caused by flooding cannot be overlooked, as they lead to loss of lives and properties, structural damage, destruction of agricultural land, and disruption of socio-economic activities, which cannot be considered as something good; hence, it is evil.

However, ²² Nott (2006:54) emphasised that a flood event would not be considered a natural hazard unless it threatens human life and property. According to him, a flood can only be seen as evil if it brings about danger to human lives and property. A flood with any damage in the forms of lives, properties, and other means possible would not be considered hazardous; therefore, such a flood is not evil since no destruction is recorded. It is deducible from his argument that not all flooding can be considered evil.

However, research shows that for over thirty years, the world has experienced over 200 flood-related events, which eventually claimed the lives of over 500,000 people and made more than 20 million people homeless. Floods are estimated to cause 40% of the damages caused by natural disasters (Bartleby Research, 2018: 3). Another source emphasised that floods cause an approximate figure of about 6667 deaths every year (Hashizume, 2013: 11).

On this stand, Kansal, Kumal and Prashant (2017) clearly ³⁰ stated that the effect of flooding can be divided into two basic categories: primary and secondary. The main effects of floods are property damage, livestock losses, fatalities, and interruptions to utilities like water and power supplies. The secondary impact is long-term and may be more significant, resulting in indirect losses and negative consequences. It includes shortages of necessities brought on by transportation network failures and long-term health effects from water supply and sewage disposal system failures. (kansal, Kumal and Prashant, 2017: 1732).

Flood also leads to metaphysical evil, death, which may occur directly or indirectly. Directly, the water runoff often carries victims, which eventually leads to death in most cases, whether by drowning them, inability to catch their breath, dropping them from a perilous height or encountering other forms of harmful substances which may eventually lead to their death.

Indirectly, floods often disrupt agricultural activities, such as the killing of livestock and the destruction of already cultivated farmlands, which eventually cause a shortage of food and may lead to famine, causing death.

9.0 Freewill, Determinism and Flooding

The philosophical discourse on free will and determinism provides a critical framework for evaluating the ethical and theological dimensions of flooding, particularly in urban centres like Ibadan. Free will, as defined by Omoregbe (1980: 22), is the capacity for self-determination—the power to choose actions without external compulsion. This principle underpins moral responsibility, a view upheld by classical thinkers such as St. Augustine and St. Thomas Aquinas, who argued that moral accountability presupposes freedom. In the context of flooding, this implies that human decisions such as illegal construction on floodplains, poor waste disposal, and deforestation are deliberate acts for which individuals and institutions must be held morally culpable (Ojo & Adeyemi 2024: 25). The recurring Ogunpa floods in Ibadan, for instance, have been significantly exacerbated by human negligence, including the ³⁶dumping of refuse into river channels and the disregard for urban planning regulations (Agbola et al. 2012: 2). From a free will perspective, such actions are not mere accidents but moral failures that demand ethical scrutiny.

Conversely, determinism posits that all events, including human behaviour, are causally necessitated by prior conditions. Under theological determinism, all occurrences are believed to be divinely ordained, aligning with the views of reformers like John Calvin and Martin Luther, who maintained that God's sovereignty extends to every aspect of creation (Smith & Nkomo 2023: 82). If this view is accepted, then even human-contributed disasters such as flooding could be seen

as part of a divine plan, potentially absolving humanity of responsibility. However, this stance risks fostering fatalism, undermining proactive environmental stewardship and disaster preparedness (Lopez & Gupta 2023: 295). As Intemann and de Melo-Martín (2023: 152) argue, even within structural or divine frameworks, humans retain a degree of moral agency that obliges them to act ethically in the face of environmental threats.

Contemporary scholarship increasingly rejects the rigid dichotomy between free will and determinism. Chakraborty and Dhar (2023: 405) propose a model of constrained agency, where human choices are shaped by socio-political and environmental contexts, yet individuals and governments still bear responsibility for mitigating harm. This is particularly relevant in African urban settings, where flooding results from both individual actions and systemic failures such as inadequate drainage infrastructure and weak enforcement of land-use policies (Karanja & Mwangi 2023: 372). Alam and Rahman (2023: 138) further assert that environmental ethics must be grounded in accountability, warning that the denial of human agency in ecological crises erodes the foundation of moral reasoning.

Moreover, Nguyen and Becker (2023: 370) revisit Augustine's privation theory, suggesting that natural evils like floods are not positive creations of God but the consequence of disrupted ecological order caused by human moral failure. This theological-philosophical synthesis affirms that while God may permit suffering, the root cause lies in human sinfulness particularly greed, negligence, and environmental exploitation. Similarly, Mabrouk et al. (2023: 5078) emphasise that urban resilience must be built on ethical responsibility, learning from past disasters to implement adaptive strategies rather than relying on passive acceptance.

While determinism may offer a theologically comforting explanation, it can hinder effective policy and civic engagement. Free will, though philosophically contested, provides a more actionable framework for addressing flooding. As Ojo and Adeyemi (2024: 28) conclude, the recurrence of flooding in Ibadan is less a manifestation of divine will than a reflection of human moral failure. Therefore, mitigating flood risk requires not only engineering solutions but a philosophical and ethical reawakening a recognition that humans, as free and responsible agents, must act justly toward both society and the environment. Floods, though natural in origin, are often intensified by human actions, and thus, moral responsibility cannot be evaded under the guise of fate or divine providence.

10.0 Conclusion

The recurrence of flooding in Ibadan, particularly along the *Ogunpa* River, cannot be attributed solely to natural forces or divine will. While natural phenomena such as heavy rainfall are contributing factors, human actions such as ³ deforestation, poor waste management, and ³³ construction on floodplains play a significant role in exacerbating the severity of these events. From a philosophical and ethical standpoint, this underscores the moral responsibility of both individuals and government agencies.

Free will implies accountability; if humans are free agents, as Augustine and Aquinas affirm, then negligence in environmental stewardship constitutes moral evil, which in turn intensifies natural disasters. Theological determinism, which attributes all events to divine sovereignty, risks fostering fatalism and inaction. However, as Oshitelu (2010: 27) and Plantinga (1977: 8) argue, moral evil arises from human choices, not divine causation. Thus, while God may permit suffering, the root cause of preventable flooding lies in human failure.

Urban resilience theory further supports proactive, adaptive strategies over passive acceptance. The persistent flooding in Ibadan reflects not only environmental degradation but also institutional neglect and weak enforcement of planning regulations. Sustainable solutions require a shift from reactive measures to long-term, community-inclusive policies grounded in environmental ethics.

In sum, natural disasters like flooding should first be examined through the lens of human agency before invoking theological explanations. Addressing the “Ogunpa” floods demands moral responsibility, sound governance, and ecological consciousness—prerequisites for a resilient and just urban society.

5.3. ³ Recommendations

Based on the preceding and the findings from this study, the following recommendations are made:

- i. The government should implement a disaster risk management system that would warn people about any given hazard and serve as an emergency to remove them from flood-prone areas during floods or other hazards.
- ii. The government should carefully manage flood-prone rivers like the Ogunpa River in Ibadan, Oyo state. Structures like dams and reservoirs should be built and planned to prevent flooding hazards from recurring. This would help avoid the risks and damages that occur from flooding.
- iii. Rather than seeking solutions after a flooding hazard, the government should be able to think ahead by gathering hydrological experts who can predict the possibility of flood hazards and seek lasting solutions to help prevent such occurrences.

- iv. Agencies and the government should take proper measures to educate the masses on the potential risks of improper waste management and possible solutions to tackle the problem.
- v. Also, individuals should make it a duty to become aware by getting relevant information on weather forecasts and other ³⁷early warning systems to reduce the devastating consequences of flood hazards within the city.

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