



ST. MARY'S UNIVERSITY
SCHOOL OF GRADUATE STUDIES
MASTER OF ART PROJECT MANAGEMENT

IMPACT ASSESSMENT OF THE RIVERSIDE DEVELOPMENT PROJECT IN
ADDIS ABABA IN THE CASE OF ATLAS

BY
SITOTA KEBEDE

JUNE 2022
ADDIS ABABA, ETHIOPIA

**IMPACT ASSESSMENT OF THE RIVERSIDE DEVELOPMENT PROJECT IN
ADDIS ABABA IN THE CASE OF ATLAS**

**BY
SITOTA KEBEDE
ID: SGS/0475/2013A**

**A THESIS SUBMITTED TO ST. MARY'S UNIVERSITY, SCHOOL OF GRADUATE
STUDIES, MASTER OF ART'S DEGREE IN PROJECT MANAGEMENT**

**JUNE 2022
ADDIS ABABA, ETHIOPIA**

Approval of board of examiners

Dean, Graduate Studies

Signature

Date

Yilikal Wassie (PHD)
Advisor

Signature

Date

Examiner

Signature

Date

Examiner

Signature

Date

Declaration

I, Sitota Kebede, thus declare that this research titled "Impact Assessment of the Riverside Development Project in Addis Ababa in the Case of Atlas" in Addis Ababa is the result of my own labor and research, and that all sources of materials used in the study have been properly acknowledged. This work was not submitted for credit at any university, including this one. It is provided as part of the requirements for the Master of Arts in Project Management degree.

Name: Sitota Kebede Mulatu

Signature: _____

This MSc Thesis has been submitted for examination with my approval as thesis advisor.

Name: Yilikal (Ph.D.)

Signature: _____

Date of submission: June, 2022

ACKNOWLEDGEMENTS

First and foremost, I want to express my heartfelt thankfulness to Almighty God for making this job possible.

I would like to convey my heartfelt gratitude to my advisor, Dr. Yilikal Wassie, for his tireless efforts in leading, assisting, supporting, and providing feedback. I'd want to thank all of the people who helped make this paper a reality. This thesis could not have been accomplished without the help and involvement of many people. A particular thanks to my closest buddy for his unending support, as well as for pushing me to excel in all of my activities.

Thank you all!

TABLE OF CONTENTS

ACKNOWLEDGEMENTS.....	v
TABLE OF CONTENTS.....	vi
LIST OF TABLES.....	x
ABSTRACT.....	xii
CHAPTER ONE.....	13
Introduction.....	13
1.1. Background of the study.....	13
1.2. Statement of the problem.....	14
1.3. Research questions.....	15
1.4. Research objectives.....	15
1.4.1. General objective.....	15
1.4.2. Specific objectives.....	15
1.5. Significance of the research.....	16
1.6. Scope of the research.....	16
1.7. Limitation of the study.....	16
1.8. Organization of the study.....	16
CHAPTER TWO.....	17
Literature Review.....	17
2.1. Definition of key terms and concepts.....	17
➤ Water.....	17
➤ Stream.....	17
➤ River.....	17
➤ Riverside.....	17
➤ Riverfront.....	17
➤ Redevelopment.....	18
➤ Waterfront Development.....	18
➤ Riverside development project.....	18
➤ Public space.....	18
➤ Riverbank Zone and Riverside Development Zones.....	18
➤ Human Activity & Rivers.....	19
➤ River & Economy.....	20
➤ Greenfield Land.....	20

➤	Setbacks.....	20
2.2.	Introduction	20
2.3.	Theoretical Literature Reviews	20
2.3.1.	Theoretical Reviews Related To The Social Impact Of A Riverside Development Project	21
2.3.1.1.	Health Improvement.....	21
2.3.1.2.	Impact on the society’s Comparative Advantage.....	22
2.3.1.3.	Open Space.....	23
2.3.2.	Theoretical reviews Related to the economic impact of a riverside project	25
2.3.2.1.	Tourism industry	25
2.3.2.2.	Recreation activities	25
➤	Recreation, leisure, and sports in the community	25
2.3.2.3.	Formation of small and medium level markets.....	27
2.3.3.	Theoretical reviews Related to the environmental impact of a riverside project	28
2.3.3.1.	Water Pollution	28
➤	Types of water pollution	28
2.3.3.2.	Main Sources Of Contaminated River	29
➤	Industrial Source	29
➤	Municipal Source	31
➤	Importance of Waterfront or riverside development.....	32
2.3.3.3.	Tourism	32
2.3.3.4.	Green effect.....	34
2.3.3.5.	Summary Theoretical Framework.....	35
2.4.	Empirical Literature Review.....	35
2.4.1.	Introduction	35
2.4.1.1.	Empirical Review Related to Social Impact	35
2.4.1.2.	Empirical Review Related to Economic Impact	37
2.4.1.3.	Empirical Review Related to Environmental Impact.....	37
2.5.	Conceptual framework.....	37
2.5.1.	Introduction	37
2.5.2.	Relationship between & among variables	38
2.5.3.	The research gap & expected solution.....	38
CHAPTER THREE		41

Research Design and Methodology	41
3.1. Introduction	41
3.2. Research design.....	41
3.2.1. Sample technique	42
❖ Secondary data review	42
❖ Primarily data collection	42
3.3. Participant observant	42
3.4. Sample size.....	43
3.4.1. Interviews with key informants (IKI)	43
I. Government representatives	43
II. Project management team members	43
III. Individuals from the society	43
IV. The health office	44
V. Research Experts in the area.....	44
3.5. Sampling technique	44
3.5.1. Sampling and sampling techniques.....	44
3.6. Data processing	45
3.7. Method of data analysis.....	45
3.8. Validity and Reliability	46
3.8.1. Validity	46
3.8.2. Reliability.....	46
CHAPTER FOUR.....	47
Result and Discussion	47
4.1 Introduction	47
4.2 Demographics of the Interviewees	47
4.2.1 Categories of Interviewees	47
4.2.2. General Description of Participants.....	47
4.3 Major Finding on the Social Aspect.....	48
4.3.1. Social aspect in the relocation program.....	48
4.3.2 The Outcome of the Relocation on Social Capital	48
4.3.3 Social Support Mechanisms like Idir, Iqub, Mahiber and Others	49
4.4 Major Finding on the Economic Aspect	50
4.3.1. Economic aspect of the project.....	50

4.3.2 The Outcome of the Economic Aspect.....	51
4.3.3 Economic Support Mechanisms like Idir and Ikub	51
4.5 Major Findings on the Environmental Aspect	52
4.3.1. Environmental aspect of the project	52
4.3.2 The Outcome of the Environmental Aspect	52
CHAPTER FIVE	54
Summary, Conclusions and Recommendations.....	54
5.1 Summary	54
5.1.1 Social Aspect	54
5.1.2 Economic Aspect.....	54
5.1.3 Environmental Aspect	54
5.2 Conclusions	55
5.3 Recommendations	56
5.3.1 Recommendations for best practice for riverside development in the social aspect	56
5.3.2 Recommendations for future research	56
REFERENCES	57
APPENDIX.....	59

LIST OF TABLES

Table 2.1 Health problems (Aregawi T. 2014)	22
Table 2.2 Characteristics of urban open spaces.	24
Table 2. 3 Special characteristics of a waterfront zone (Source: Costanza, 1999)	27
Table 2. 4 Major Categories of Water Pollutants	30

ACRONYMS

AAEPA - Addis Ababa Environment Protection Authority

AAWSA – Addis Ababa Water and Sewerage Authority

AAU – Addis Ababa University

BOU – Biological Oxygen Demand

CCCC – China Communications Construction Company

COD – Chemical Oxygen Demand

DO – Dissolved Oxygen

EPA - Environmental Protection Authority

FEPA - Federal Environmental Protection Authority

OEPA - Oromia Environmental Protection Office

RF - Riverfront

RS - Riverside

RSD - Riverside Development

RSDP - Riverside Development

UGI - Urban Green Infrastructure

UNEP - United Nations Environment Programme

UNWTO - United Nations World Tourism Organization

WHO – World Health Organization

ABSTRACT

Riverfront development is one of the city's megastructure projects that refers to any development along a riverside or bodies of water. Water contamination from industrial wastewater disposal is becoming a major environmental hazard in Addis Ababa and its surrounding regions. The study's goal is to look at the project's social, economic, and environmental elements. Riverside projects provide various advantages, including improved environmental and water quality, tourism prospects, improved social services, and more social engagement in society. The study used a qualitative research method. Structured open-ended and close-ended purposeful interviews, secondary data, and observations were employed in the study. Purposive sampling is used to pick 50 respondents from several concerned sectors. As a result, the purpose of this research is to assess the project's social, environmental, and economic elements and to make suggestions for the project's future. This study concludes with various future research proposals. The well-being of society is a significant value for one country in these sorts of megastructure projects. The local government must respect the demands of citizens by not moving but rather offering standard living space; transferring people destroys the community's history, identity, and well-being. Related literature research was done to compile a list of factors pertinent to the entire investigation.

Keywords: Riverside, Riverside development

CHAPTER ONE

Introduction

1.1. Background of the study

One of the most vital natural resources is water, which is essential for the survival and health of most living organisms. Water's extensive usage for drinking, agriculture, transportation, industrial input, electrical power generation, and recreational amenities demonstrates how important it is to human life. "Next to oxygen, freshwater is the most important substance for human existence and it is essential for everything on our planet to grow and prosper." (Prabu P.C. et al. 2009) Freshwater rivers, lakes, and groundwater are utilized to irrigate crops, supply drinking water, and serve as a sewage system. Even though the fact that we are aware of this truth, we are often caught recklessly polluting our rivers and other water supplies. Most of our water sources are gradually being contaminated as a result of the addition of alien organic and inorganic components from the environment. Organic plant and animal litter, land surface washing, and industrial and sewage effluents are only a few examples.

The Earth is known as the "Blue Planet" because water covers 71 percent of its surface. The world contains a lot of water, but only a tiny fraction of it (approximately 0.3 percent) is useable by people. The remaining 99.7 percent is in the seas, soils, ice caps, and the atmosphere. Even yet, much of the 0.3 percent that is usable is out of reach. Rivers provide the majority of the water needed by humans.

It is the most important natural resource and is necessary for the survival of life on Earth. Our society's well-being and progress are reliant on the availability of water. "This precious resource is sometimes scarce, sometimes abundant, and is always very unevenly distributed" (Reddy, 2001).

The Addis Ababa Riverside Green Development Initiative, also known as the "Sheger Beautifying Project," is a Chinese-funded project backed by the Ethiopian government. The project's goal is to clean waterways and build public works in Addis Abeba, the country's capital city in East Africa. The Prime Minister announced it in February of last year, and it is scheduled to be executed within three years.

The first phase of the project is nearing completion on a 27-hectare plot of land across from the Sheraton Hotel. It includes the development of a "Friendship Square," the "Central Axis of Etiquette," a "Banteyiketu" River waterfall belt, a central rally plaza, a lakeside fountain, a music square, five amphitheatres, and an artificial pond. (Ethiopia national parks)

1.2. Statement of the problem

In Ethiopia, the increasing human population, uncontrolled urbanization, and inadequate sanitation infrastructure cause serious quality degradation of surface waters. Now a day's water pollution from the disposal of industrial wastewater is becoming an environmental concern in Addis Ababa city and its vicinity areas, where most (More than 40% of large and medium scale manufacturing industries are located (Mulu A, Ayenew T, Berhe S (2013). As a result, many rivers and streams are heavily polluted as they flow through major cities and towns. Pollutants can enter surface waters from point sources such as single-source industrial discharges and wastewater treatment plants. However, most pollutants result from non-point source pollution activities including runoff from agricultural lands, urban areas, construction, and industrial sites, and failed septic tanks.

Both solid and liquid waste generated from previously mentioned sources contributes to the pollution of Addis Ababa Rivers. Even though Addis Ababa is the only city with sewer networks, it has a very limited sewer network coverage that accounts for 7.5% of the built-up areas. Since only parts of the older sections of the city are connected to the central sewer system, both residential and business premises use septic tanks (MUDHCo; ECSU (2015). Water pollution occurs when the use by one segment of society interferes with the health and well-being of other members. Due to the pollution problem of the rivers, negative impacts on the social, economic, and environmental conditions have been observed. Strong toxic waste effluents could kill all plants and animals in the stream in which they are discharged. Less toxic pollution may also engender quite complex hazards whose ill effects are due to nutrients and suspended matter. Addis Ababa Environment Protection Authority (AAEPA) in 2002 GC and Federal Environmental Protection Authority (FEPA) in 2005 GC identified the following major social and economic problems of the pollution of rivers. For this study, let us emphasize the social and economic problems created because of river water pollution.

Green spaces are considered to be open surfaces with vegetation such as parks or gardens (WHO Regional Office for Europe, 2016), while blue spaces are considered “outdoor environments – either natural or manmade – that prominently feature water and are accessible to humans” (Grellier et al., 2017). There is evidence suggesting that access to these natural outdoor environments promotes physical activity, social cohesion, and improved psychological well-being (Gascon, Zijlema, Vert, White, & Nieuwenhuijsen, 2017; Nieuwenhuijsen, Khreis, Triguero-Mas, Gascon, & Dadvand, 2017). However, cities do not always have sufficient, accessible natural outdoor environments for the population (Nieuwenhuijsen et al., 2018).

Currently, there are efforts to control and treat the river in Addis Ababa by the city administration including the recent huge river and riverside development project and a few private sectors. But these efforts are very limited and do not address the whole pollution problem in the city.

The project extends from Mount Entoto to Akaki, passing past the former Basha Wolde Chilot, in front of the national Parliament at Arat Kilo, and the densely populated Piassa in Addis Abeba's center.

The first phase of the project, which runs from Entoto to Bambis Bridge, is now under construction with financial assistance from the state-owned China Construction Company (CCCC).

The project plays an important role in the promotion of human health and well-being that might influence human behavior in terms of physical activity and social cohesion, which are both determinants of physical and mental health and well-being. Every project has its impact on society positively or negatively in terms of social, environmental, and economical aspects.

1.3. Research questions

The followings are the basic research questions that will try to explore

- ❖ What is the impact of the riverside development projects on social aspects?
- ❖ What is the impact of the riverside development projects on economic aspects?
- ❖ What is the impact of the riverside development projects on environmental aspects?

1.4. Research objectives

1.4.1. General objective

The general objective of this study is to investigate the implication of riverside development projects in Addis Ababa in the case of Atlas area

1.4.2. Specific objectives

- ❖ To examine the positive and negative effects of riverside development projects on the social aspects,
- ❖ To examine the positive and negative impacts of riverside development projects on the economic aspects,
- ❖ To examine the positive and negative impacts of riverside development projects on the environmental aspects,

1.5. Significance of the research

This study will help city planners, designers, and decision-makers understand the current state of Addis Ababa's highly populated inner city. It helps to understand what is the factor to be considered besides the riverside project.

1.6. Scope of the research

This research has covered the issues only related to the major social and economic and environmental problems faced by the riverside development project. surrounding people who are directly and indirectly affected by the pollution around Atlas area.

1.7. Limitation of the study

The research may not cover all elements of the problem. Due to time constraints and a lack of previous local research on the subject, primarily in the riverbank development project. This study was carried out around Atlas in its geographical region; the chosen location is in the center of Addis, which presents a constraint because we do not have correct data in all areas where the river runs.

1.8. Organization of the study

The research is divided into five chapters. The first chapter outlines the project's background, problem statement, scope, significance, and objectives. The second chapter examines current literature linked to the study in order to obtain a better knowledge of the research issue. The third chapter describes the research methods utilized by the researcher to conduct the study. The fourth chapter contains the study's findings and explanations of those findings. Chapter five outlines the study's findings, conclusion, and recommendations that would help to solve the problem stated, as well as a request for additional research.

CHAPTER TWO

Literature Review

2.1. Definition of key terms and concepts

➤ **Water**

Water is the main regular asset for human endurance on this planet. Water is quite possibly the most essential regular asset expected to keep up with human wellbeing and civilization. Water is crucial for all life and is utilized in an assortment of ways. It is likewise a part of the more extensive environment on which biodiversity proliferation is reliant. Water is an inorganic, clear, bland, scentless, and practically lackluster compound substance that is the significant element of the World's hydrosphere and all known living creatures' liquids.

➤ **Stream**

A stream is a nonstop group of surface water that streams inside a channel's bed and banks. A stream might be alluded to by an assortment of neighborhood or provincial names relying upon its area or certain attributes. Long, enormous streams are ordinarily alluded to as waterways, while more modest, not so much voluminous, but rather more discontinuous streams are alluded to as rivulets, streams, or brooks.

➤ **River**

A river is a naturally flowing body of water, generally freshwater, that flows into an ocean, sea, lake, or another river. A river may run into the earth and become dry at the end of its journey if it does not reach another source of water. Small rivers are known by names such as stream, creek, brook, rivulet, and rill.

➤ **Riverside**

Rivers and their tributaries are the veins of the planet, pumping freshwater to wetlands and lakes and out to sea. They flush nutrients through aquatic ecosystems, keeping thousands of species alive, and help sustain fisheries worth billions of dollars.

Rivers are also the lifeblood of human civilizations. They supply water to cities, farms, and factories. Rivers carve shipping routes around the globe and provide us with food, recreation, and energy. (National Geography)

➤ **Riverfront**

The riverfront area is the confluence area of water and land. It is not only the edge of the land but also the edge of the water, and the land should cover some areas. (Diyun, 2009).

The vast majority of the waterfront lands are like belts along the shorelines. Individuals need to utilize these regions, so organizers start to consider a method for making it appealing for individuals. Step-by-step instructions to associate traffic layout with various capacities, and how to speak with economically depressed areas are the principal issues.

Waterfront is where water and land meet covering the reach that is utilized corresponding to water. Typically, it incorporates the land inside 300 meters from the waterline and the region over the water at a profundity of 5 meters.

➤ **Redevelopment**

Redevelopment can be termed as further development of an already developed area. The definition of redevelopment can be ‘the urban process of improving cleared or undeveloped land, including erection of buildings and other facilities by public or private developers.

➤ **Waterfront Development**

Waterfront development can encompass any mix of land uses, and shoreline projects might be new or redevelopments of existing waterfronts into new destinations. Some waterfront developments are centered on industrial applications, such as industrial ports, while others are centered on recreational and tourism-oriented uses. A variety of uses must occur along a waterfront, bringing in as many interests as possible, but it is not required that a variety of uses occur inside each project.

➤ **Riverside development project**

Redevelopment can be termed as further development of an already developed area. The definition of redevelopment can be ‘the urban process of improving cleared or undeveloped land, including erection of buildings and other facilities by public or private developers.

➤ **Public space**

The term "public space" refers to property that is available for public use. It can be owned privately or publically. A geographic study on public space investigates conflicts over the creation and alteration of publicly accessible locations, their usage, political and social implications, and their link to the establishment of the public sphere.

➤ **Riverbank Zone and Riverside Development Zones**

Based on Autor (Amy, 2005) Land adjacent to the river can be defined and characterized into three zones:

The riverbank zone is the region nearby the waterway between the water's edge and the highest point of the bank. Where there is no bank, yet rather an upward bulkhead or other designed vertical construction, there is no riverbank zone.

The advancement zone is the region adjoining, and on the land side of, the metropolitan scenic route zone. The improvement zone is the region where redesign, redevelopment, or new advancement will happen. Such improvement might be business, private, institutional, or some other utilize allowed by the drafting for the site.

The metropolitan scenic route zone is the region between the highest point of the bank and the advancement zone and ought to be created with arranging and a sporting multi-use trail. Exemptions for this rule incorporate turn of events or development expected by stream subordinate purposes, inconsistent modern use, and existing structures or designs.

➤ **Human Activity & Rivers**

The importance of water for socio-economic development is well recognized globally; but with increasing population size and the rapid process of industrialization unfolding, water scarcity is looming high in many countries of the world. Lack of water hampers development by constraining food production, health, and industrial development (Economic Commission for Africa, 2006).

Because of its numerous properties, mankind broadly utilizes water. Nonetheless, the various purposes influence both the quality and amount of accessible water. Waterways are one of the normal assets, which are profoundly presented to extreme human action. The nearness or closeness of streams to areas of broad populace settlement makes them significantly more inclined with the impact of human exercises. This is especially valid for streams, which cross metropolitan urban communities. For the additional tremendous turn of events, it is impossible that huge expansion in the deliberation of water from nature at sensible expenses is conceivable without extreme ecological or social aggravation in many nations.

The impacts of human activity on such streams are restricted to overabundance use, yet additionally because of different ill-advised use of it. Such reasonable and heartless double-dealing of waterway waters can for the most part prompt extreme contamination, which in the end dirties the stream to the degree that it can not anymore be fit to give any advantageous use. The contamination of such waterways stretches out to the degree of presenting different types of dangers to the encompassing occupants.

➤ **River & Economy**

The City of Riverside is committed to building inclusive partnerships for sustainable, resilient economic development through strategies to stimulate a favorable investment climate, welcome entrepreneurship, encourage industry and talent diversity, expand living wage jobs and support our unique quality of place.

Riverside Tourism the relations between waterways or other water sources and urban areas frequently show perplexing cooperation of different components, including the improvement of the travel industry around the stream.

➤ **Greenfield Land**

Greenfield land is undeveloped land in a city or rural area either used for agriculture or landscape design or left to evolve naturally. These areas of land are usually agricultural or amenity properties being considered for urban development. Greenfield land can be unfenced open fields, urban lots, or restricted closed properties. Greenfield sites offer a high degree of freedom for a developer, compared to sites with existing developments.

➤ **Setbacks**

A setback defines the requirements for the minimum distance between new development and the river. Setbacks are required for all new development but do not apply to existing buildings or development (Institute, Urban Planning Standard, 2008).

2.2.Introduction

The literature review chapter presents an overview of the literature that is related to the research area, for this dissertation and the related research objectives. This chapter will focus on the theoretical, empirical & conceptual framework.

2.3.Theoretical Literature Reviews

The Addis Ababa River Side Project has significant potential to assist the city in utilizing and harnessing its natural assets for Addis Ababa's green growth. The project is projected to have a variety of consequences on the well-being of its residents as well as increase the city's exposure.

2.3.1. Theoretical Reviews Related To The Social Impact Of A Riverside Development Project

2.3.1.1. Health Improvement

Problems Associated with Human Health: Most polluted waters contain substances such as nutrient elements, heavy metals, and other toxic compounds which can affect human health when present in excessive amounts and are regarded as potential contaminants. These contaminants may endanger the health of both human and aquatic organisms. The major potential negative impact of polluted water is an increase in the incidence of water-related diseases and infections. Human infectious diseases are among the most serious effects of water pollution, especially in developing countries, where sanitation may be inadequate or non-existent. Waterborne diseases occur when parasites or other disease-causing microorganisms are transmitted via contaminated water, particularly water contaminated by pathogens originating from excreta. The infections related to water supply and sanitation are numerous and the relationships are sometimes complex. Water-related diseases may be divided into those, which are caused by some chemical substances in water, and water-related infections which are described because their transmission depends upon water. Human consumption downstream of the polluted area of the river create a health problem for children of school age due to river water being a more pronounced problem that may hurt their school attendance and educational performance (EPAE and AAEP, 2006).

Problems Associated with animal health: these toxic substances can be health hazards to livestock when ingested with water. It is learned that animals become affected after consuming the water. Most of the time, sick animals, which were using polluted river water, show the symptoms like gastrointestinal disorders, bloating body diarrhea, nervous signs like tremors and paralysis, edematous swelling, dermatitis, and loss of hair (FEPA 2005). The problem is further worsened by the fact that the river water has bad odors and unpleasant taste so that animals do not drink it regularly until they get very thirsty. Thirsty animals consume a high volume of water together with a substantial amount of pollutants that could result in health problems.

Pollutants may have their main effect on aquatic organisms by reducing the dissolved oxygen (DO) content of water. The amount of oxygen that is dissolved in water varies greatly, and the 22 impacts of pollutants on this DO can be measured either in terms of biological oxygen demand (BOD) or in terms of chemical oxygen demand (COD) (Hanley N., and et.al, 2001).

Table 1.1 Health problems (Aregawi T. 2014)

Health Problems	Percentage
Cough	76.5 %
Diarrhea	58.8 %
Typhoid	51 %
Typhus	45.1 %
Skin Problem	41.2 %
Gastro Intestinal	39.2 %
Asthma	33.3 %
Eye Problem	29.4 %
Bronchitis	3.9 %

2.3.1.2. Impact on the society's Comparative Advantage

Comparative advantage is an economic theory pioneered by 19th-century British economist David Ricardo that attributes the causes and benefits of international trade to differences in the relative opportunity costs (costs in terms of other goods foregone) of producing the same commodities across countries. The fact that one country might manufacture things more effectively than another was not an argument against international commerce under Ricardo's theory, which was founded on the labor theory of value (in effect, making labor the only component of production).

Being the greatest at something does not imply having a comparative advantage. In reality, someone might be entirely inexperienced at something and still have a comparative edge at it! How is that possible? The answer is many among those geography is one of them

Negative impact

- When efforts such as riverside development projects are undertaken, there is a risk that society would suffer as a result. The civilization that has made its home in the area may face a setback. There is an eCommerce benefit.
- Because of the riverside development project, there will be many relocation programs because of the demand for land, resulting in these individuals living in the city's core losing economic advantages such as renting dwellings, local markets, transport availability, and social contact. When they are shifted to a new location, they lose the relationship that has been developed over many years, such as societal ideals such as EDIR, EKUB, and so on...

Positive Impact

- Because they are in a new place, they will enjoy a cleaner environment and a greater standard of living.
- The project's contribution is the introduction of new facilities, which serve to reduce the number of unemployed people.
- These amenities generate new demand and supply, which benefits the country's economy.
- Because of the clean river and new facilities, tourism will expand.

2.3.1.3.Open Space

The value of open spaces in the life of settlements cannot be overstated. The places with a high percentage of green cover are ecologically and environmentally significant.

These green areas can enhance the urban climate, mitigate the urban heat island effect, and lessen environmental harm by acting as an ecological balancer.

Because of their social significance, open spaces can assist inhabitants in adjusting to a healthy lifestyle. They determine the character of settlements by their aesthetic value, so improving the built-up character of cities.

Urban open spaces (UOS) are described as publicly accessible open areas that are intended and constructed for human activity and enjoyment. Parks and community gardens, children's play spaces, green corridors, downtown civic plazas and squares, pedestrian streets, and market places are examples. This concept is based on Lynch's (1981) contention that open space is open when it is accessible. A walled seaside area or a market that is shut at night, for example, is not considered an urban open space. The distinction between "accessible" and "inaccessible" open spaces is a more helpful means of describing and classifying urban open spaces than merely "open" and "closed."

Characteristics of urban open spaces

Table 2.2 Characteristics of urban open spaces.

Distinctiveness	This means that the spaces reflect the local character of the area and have a variety of uses, built forms, features, colors, and materials that give the spaces and buildings their own identity within the overall character of the surrounding urban environment
Accessibility	This means good connections which lead to urban open spaces and good connections from these open spaces to other parts of the city
Safety	People use urban open spaces without fear of tripping or falling or being attacked
Comfort	Comfort includes environmental factors (shading from the sun, wind, ... etc.), physical comfort (comfortable and sufficient seating areas, ... etc.), and social and physical comfort (privacy, relaxation, ... etc.)
Passive engagement	This means that people stay calm and watch. It is provided in urban spaces by fountains, views, public art, ... etc
Enjoyable	This can be through representing a variety of pleasant events such as concerts, art, exhibitions, festivals, and other social events

To summarize, productive open spaces and their pedestrians require some safeguards connected with space design. According to the facts stated above, open spaces are places to rest one's head, a place to prepare and consume food, a place to dispose of garbage, a place for nurturing, hoping and praying, arguing and separating, and typically a haven from an often hostile and hard world outside.

Furthermore, urban design connects buildings, people, and their surroundings. These three items are quite comprehensive and cannot be separated. The movement variables from one location to another, as reflected by the movement of its pedestrians, affect the productivity and vitality of the urban area.

2.3.2. Theoretical reviews Related to the economic impact of a riverside project

2.3.2.1. Tourism industry

Riverside development has unique elements that can draw in nearby inhabitants and sightseers all over the planet. The developing fame of waterfronts contributed pay to the nearby government. Expanded quantities of guests and expanded requests for the offices and convenience is a primary supporters of waterfront advancement and redevelopment. Subsequently, keeping up with the number of guests and the excellence of waterfront conditions is significant for improving the vacationer business.

2.3.2.2. Recreation activities

One of the extraordinary qualities of waterfront regions is that they offer open doors for outside amusement. The developing notoriety of water-based amusement and expanded interest for entertainment regions from the general population has set off legislatures to create and redevelop waterfront regions for public use.

Recreation encompasses all of the activities that individuals choose to engage in to refresh their bodies and brains and make their free time more fascinating and pleasurable. Walking, swimming, meditation, reading, playing games, and dancing are all examples of recreational activities.

Leisure refers to the spare time that individuals have away from their daily duties (such as work and household chores) to rest, relax, and enjoy life. People engage in recreational and sports activities during their free time.

The sport encompasses all forms of organized physical exercise, such as soccer, rugby, football, basketball, and athletics.

➤ Recreation, leisure, and sports in the community

Leisure time is not usually well understood or prioritized in many low-income nations where people work every day simply to live. Indeed, many hobbies that are considered enjoyable in high-income nations, such as fishing and handicrafts, are regarded as a source of income in low-income ones.

The sort of leisure and sports activities in most communities are determined by age, gender, geographical setting (e.g., rural vs. urban), and socioeconomic position. Children in disadvantaged neighborhoods, for example, are more prone to play games with natural

materials such as twigs or stones, or with abandoned manufactured goods such as tires and rope. Leisure activities such as traditional dance, storytelling, religious festivals and gatherings, and visiting entertainment troupes are also likely.

Because there are no defined venues for people to spend their free time in many impoverished and rural regions, such as community centers and sports stadiums, it is usual for people to assemble in places of worship, tea shops, households, and open spaces.

Low-income communities may have pressing issues and limited funds. As a result, the growth of official recreation and sports activities/programs is typically dependent on benefactors. External funds must be carefully handled to ensure that programs/activities offered are acceptable for the local context.

Recreation and sports participation may have several advantages for both the person and the society. These are some examples:

- Recreation and sports activities are pleasurable and effective ways to promote health and well-being; they may reduce stress, boost fitness, improve physical and mental health, and prevent the development of chronic diseases such as heart disease.
- Physical and social skills are only a few of the numerous talents that may be gained by involvement in recreational and sporting activities.
- Raising awareness, reducing stigma, and promoting social inclusion – recreation and sports activities are a powerful, low-cost means of fostering greater inclusion of people with disabilities; they bring people of all ages and abilities together for enjoyment and provide people with disabilities with the opportunity to demonstrate their strengths and abilities, as well as promote a positive image of disability.
- International peace and development - Sport is a global language that may be used to bring people together across boundaries, cultures, and faiths to promote peace, tolerance, and understanding.
- Recreation and sports activities may empower persons with disabilities by improving their self-confidence and self-esteem.

Table 2. 3 Special characteristics of a waterfront zone (Source: Costanza, 1999)

Characteristic	Description
Ecological	The waterfront zone is a dynamic area with frequently changing biological, chemical, and geological attributes. The waterfront zone includes highly productive and biologically diverse ecosystems that offer crucial nursery habitats for many marine species.
Economic	The waterfront contributes significantly to human welfare, both directly and indirectly, and, therefore represents a significant portion of the total economic value of the planet.
Social	The waterfront zone is socially important for global transportation, open access, and common property and is a unifying element in the cultures of each country.

2.3.2.3. Formation of small and medium level markets

The study of how buyers and sellers interact to establish transaction prices and quantities is known as demand and supply analysis. Prices represent both the value to the buyer of the next (or marginal) unit and the cost to the seller of that unit at the same time. Demand and supply analysis comprises the most fundamental set of microeconomic instruments in private firm market economies, which are the primary focus of investment analysts.

The law of supply and demand is a theory that describes the relationship between sellers and purchasers of a resource. The idea describes the link between the price of a specific commodity or product and people's desire to purchase or sell it. People are often inclined to supply more and demand less when prices rise, and vice versa as prices fall. The idea is founded on two distinct "laws," the law of supply and the law of demand. The two laws work together to establish the real market price and the number of commodities available on the market.

So that the above activities which are discussed above bring several demands. Trusts and local people who come to the place have the not only interests but also the ability to spend so it will create a small and meddle level market to supply their interest.

2.3.3. Theoretical reviews Related to the environmental impact of a riverside project

2.3.3.1. Water Pollution

Water pollution can be defined as any physical, biological, or chemical changes in water quality that adversely affects living organisms or make water unsuitable for desired uses. Pollution alters the quality of a water body. It significantly disturbs the natural entity of the physical and biological components of a water body. It also undermines the socio-economic values of the rivers or other water bodies (FEPA, 2005). Water pollution can be either man-made or natural.

➤ Types of water pollution

The most serious water pollutants in terms of human health worldwide are pathogenic organisms. The main source of these pathogens is untreated or improperly treated human wastes. Both bacterial and viral, nitrates from fertilizer use, heavy metals from soil and urban runoff, mineral oil discharges from illegal dumping, chlorinated solvent discharges from poorly managed waste disposal sites, acid rain, and a cocktail of poisons from working industrial and mineral sites (Merrett S.,1997).

The interaction of human beings with the natural environment around them has been the basis for the continuity and survival of life on the planet Earth. In this process, man has been utilizing natural resources that are necessary to support daily life. The intensity of resource utilization has progressed in parallel with the ever-increasing population and to satisfy the growing development needs of humankind. It is beyond any reasonable doubt that urbanization is part of such development of natural resources that has the effect of shrinking the possible but unnecessary impact exerted on the resource (AAEPA, 2002).

According to William et.al (1995), water pollution sources are distinguished into two. These are point and nonpoint pollution sources:

- i. Point sources are emissions that enter aquatic bodies from a single, easily identifiable source, such as a manufacturing pipe or a sewage outfall. Point sources include factories, power facilities, sewage treatment plants, underground coal mines, and oil wells. Because these sources discharge pollutants from specific areas, they are distinct and recognizable, making them reasonably straightforward to monitor and manage. In general, it is possible to redirect

effluent from these sources' waste streams and treat it before it enters the environment and pollutes the water. Throughout the year, point sources are pretty consistent and predictable.

- ii. Nonpoint sources: they are water pollutions that are dispersed or diffuse, with no defined spot where they discharge into a body of water. Runoff from farm fields, lawns and gardens, building sites, logging areas, roads, streets, and parking lots are examples of nonpoint sources. Nonpoint sources are frequently episodic.

In developed countries, sewage treatment plants and other pollution-control techniques have reduced or eliminated most of the worst sources of pathogens in inland surface waters. The situation is quite different in less-developed countries. The United Nations estimates that at least 2.5 billion people in these countries lack adequate sanitation, and that about half of these people also lack access to clean drinking water. Water quality control personnel usually analyze water for the presence of bacteria, any of the types that live in the colon or the intestines of humans and other animals (OEPA, 2004).

2.3.3.2. Main Sources Of Contaminated River

Today river pollution problems are heard all over the globe because of the ever-increasing population, industrialization, urbanization, and other human activities. Though Ethiopia is facing the problems that emanate from water quality deterioration in general (National Water Development Report for Ethiopia; December 2004), the extent and severity of the problem are glaringly manifested in major cities of the country. Addis Ababa is a metropolitan city. The surrounding areas are one those places where the problem of river pollution is at its highest peak. To overcome the problems of river water pollution governing the sources in wise ways is necessary.

The pollution of water is attributed to many sources and types of pollutants. When pollutants are discharged into a river, a succession of changes in water quality takes place, on the downstream side from a point of pollution. The study conducted by the Federal Environmental Protection Authority in 2006 identified the following major pollutants.

➤ Industrial Source

In our country, industrial pollution is observed around urban areas because urban areas have better infrastructure and they are suitable for the establishment of industries. In Ethiopia, most of the industries are found in the Metropolitan City of Addis Ababa and the surrounding

areas. The major pollutant industries, which are found in this area, are food and beverage, leather factories, textile, tanneries, rubber and plastic, metallic and non-metallic mineral products, and wood industries.

Table 2. 4 Major Categories of Water Pollutants

Category	Examples	Sources
A. Causes Health Problem		
1. Infectious Agents	Bacteria, viruses, parasites	Human and animal excreta
2. Organic Chemicals	Pesticides, plastics, detergents, oil, gasoline	Industrial, household, and farm use
3. Inorganic Chemicals	Metals, salts	Industrial effluents, household cleansers, surface runoff
4. Radioactive Materials	Uranium, thorium, cesium, iodine, radon	Mining and processing of ores, power plants, weapons production, natural sources
B. Causes Ecosystem Disruption		
1) Sediment	Soil, silt	Land erosion
2) Plant nutrients	Nitrates, Phosphates	Agricultural runoff, paper mills, food processing
3) Oxygen-demanding wastes	Animal manure, plant residues	Sewage, agricultural runoff, paper mills, food processing
4) Thermal	Heat	Power plants, industrial cooling

Most of the industries that are found discharge their wastewater and liquid effluents into open ditches (municipal drainage), which finally ends up in the river. Among these industries located in Addis Ababa, about 90% of them discharge their wastes without any treatment into the nearby water bodies and open spaces

By the views of the National Water Development Report for Ethiopia (December 2004) most of the high water consuming industries in the Awash basin, in the City of Addis Ababa, and the Akaki area draw water for production purposes from river water supply sources. Moreover, they discharge their by-product wastes into streams and rivers without putting in place any kind of treatment. Besides, there is no restriction on industrial plants that discharge

their wastewater into the rivers and watercourses. However, few industries in the city of Addis Ababa have treatment facilities. Nevertheless, they are seen diverting their raw wastewaters into the stormwater drainage system or else the watercourses. The reason could either be for technical reasons related to the wastewater treatment plant operation or else for reasons that there are no enforcement and effective control regarding industrial effluent discharges.

Some studies indicate that the industries equipped with some form of effluent treatment facilities have undersized installations and are frequently inoperable. It seems that the main reason for the installation of these facilities appears to have been to obtain a building permit required to construct the factories. Very few industries in the city of Addis Ababa use septic tanks for the disposal of industrial waste effluent. According to the 1996 report by the Ministry of Health- a study on liquid waste management-out of 118 industrial establishments assessed in the city of Addis Ababa, 40 have solid waste discharges, 61 generate air pollutant discharges while 62 generate liquid wastes that are discharged to the surrounding. Only six out of the investigated factories are found to have some form of wastewater treatment plants while the rest discharge their wastes without any form of treatment.

➤ **Municipal Source**

Cities in developing countries are experiencing unprecedented population growth because they are expected to provide better economic and social opportunities than rural areas. Because of this, rural to urban migration is very high. Ethiopia is one of those developing countries, whereby the urban population growth rate is higher. When the population increases, the municipal solid and liquid waste generation also increases accordingly. Miss-proportionality of the population growth and urban facilities can result in urban pollution. Hence, it is apparent that one of the sources of river water pollution is the municipal waste of urban areas. The hazards resulting from municipal and domestic pollution of the Akaki River and-in particular-its tributaries in the upper reaches were identified by studies conducted in the past (National Water Development Report for Ethiopia, December 2004).

The drainage systems, which were meant to collect run-off water (storm-water), are also being used for disposal of almost all categories of wastes, which include domestic, industrial, commercial, private, public, etc. consisting of solid wastes and grit that are major causes for the frequent blockage and overflow of waters on to streets and surroundings.

The major municipal sources of waste

- i. **Municipal solid waste:** “municipal solid waste” includes street sweeping waste, commercial, industrial, and other institutions’ solid wastes. When there is no adequate municipal solid waste management facility, the domestic solid waste is not collected properly. Often it is piled on available open grounds, stream banks, and bridge areas and is transported by storm and run off into the rivers. The municipal solid waste management problem is considered to be among the most serious environmental challenges that the world is currently encountering.
- ii. **Municipal liquid wastes:** Household liquid waste from overflowing and leaking pit latrines, as well as septic tanks. This municipal liquid waste is mostly created by toilet liquid waste, kitchen, and bathroom liquid waste, and open urination and defecation areas. Municipal liquid wastes are generated through public and communal toilets, open ground feces, and the passage of excreta into rivers via drainage systems.
- iii. **Other Chemicals:** Deferent types of used chemicals and stored obsolete chemicals are also observed in different organizations. Much of these chemicals can easily be washed away into the rivers, and chemicals used for different purposes in industries are discharged into the river after finishing their process. Fuel stations, laundries, and oils from garages are discharged their waste products to open space storage, drainages, and rivers which can contaminate rivers and groundwater. Generally, chemical pollution is one of the sources of river water pollution.

➤ **Importance of Waterfront or riverside development**

Over late many years, waterfront improvement and redevelopment have advanced with attention on notable conservation and diversion. During this time government and private areas have started to integrate waterfront arranging and planning into their advancement projects. Specifically, the examples of advancement are changing by interfacing area, water and air and scene feel to land improvement arranging. According to Gaffen (2004), the increased emphasis on redeveloping urban waterfronts may be ascribed to a variety of causes, including:

2.3.3.3.Tourism

Tourism is drawn to cities mostly because of their constructed cultural history, urban amenities, lifestyle, cultural traditions, and cultural events. An increased number of tourists frequently causes difficulty for homeowners and can reduce the value of the historic property.

Tourism has a positive impact on economic growth and employment in destinations; it helps to raise local awareness of the value of natural and cultural sites by supporting local handicrafts, cuisine, and traditions or by offering alternative economic activities. Tourism is an important aspect of the life of people in destinations and a means of achieving community development (Sharpley, Tefler 2002).

On the other hand, tourism can disturb inhabitants' original lifestyles and order, resulting in environmental degradation, traffic congestion, and increased living expenses.

According to the United Nations, World Tourism Organization (UNWTO) defines sustainable tourism as “tourism that takes full account of its current and future economic, social, and environmental impacts, addressing the needs of visitors, the industry, the environment, and host communities”.

Sustainable tourism development must meet three core objectives (UNEP, UNWTO, 2005):

- Create long-term economic activities that benefit all stakeholders on a socioeconomic level.
- Optimal utilization of natural resources;
- Respect the host communities' socio-cultural authenticity.

Waterfronts, according to Jansen-Verbeke (1986), are part of the urban tourist offering and can play a significant role in drawing visitors to a city. They can also serve as a space for inhabitants to live, work, or play. Breen and Rigby (1996) define six types of waterfronts based on their research:

- (1) commercial waterfronts,
- (2) cultural waterfronts,
- (3) educational and environmental waterfronts,
- (4) historical waterfronts,
- (5) recreational waterfronts,
- (6) private waterfronts, and working waterfronts

According to Griffin et al. (2008), having a waterfront position makes towns more appealing to tourists. According to Jansen-Verbeke and Lievois (1999), utilizing waterfronts for tourism necessitates towns to develop parking lots, open-space amenities, and sports areas, guaranteeing water quality, and making these locations accessible. At the same time, destination management should keep in mind that waterfronts are natural resources and sources of biodiversity.

Cities all over the world have realized that waterfronts open up new opportunities for attracting tourists, so they are redeveloping and conserving their waterfronts, creating new

leisure, recreational, and tourism spaces, and emphasizing the importance of historic structures within waterfront areas for tourism.

Some scholars (Griffin, Hayllar, 2006; Krolikowski, Brown, 2008) add that visitors visit waterfronts for the feel and ambiance of these sites, hence for their "genius loci." Rivers, in addition to offering stunning scenery and recreational and leisure activities, are also sources of water for human use. It should be noted that rivers are sensitive to human activities and interventions, making sustainable development of riverfront regions critical.

2.3.3.4.Green effect

Global warming is the gradual increase in the average temperature of the planet's atmosphere caused by an increase in the quantity of energy (heat) impacting the earth from the sun that is trapped in the atmosphere rather than dissipated away into space.

The earth's atmosphere has always operated as a greenhouse, capturing the sun's heat and allowing the birth of living forms as we know them, including humans. The world would be chilly if we did not have our air greenhouse. Global warming, on the other hand, is the equivalent of a greenhouse with high-efficiency reflective glass put backward.

There are three perspectives on global warming:

- (1) that global warming does not exist, and thus climate change does not exist;
- (2) that global warming and climate change do exist, but they are natural, cyclical events unrelated to human activity; and
- (3) that global warming occurs primarily as a result of human activity, and thus climate change is also a result of human activity.

The major causes of the greenhouse effect are:

- Burning of Fossil Fuels. Fossil fuels are an important part of our lives
- Deforestation
- Farming
- Industrial Waste and Landfills
- Global Warming
- Depletion of Ozone Layer
- Smog and Air Pollution
- Acidification of Water Bodies

From the above information, riverside development projects have their part to protect the greenhouse effect since it plays a public role to protect global warming

2.3.3.5. Summary Theoretical Framework

The theoretical frameworks have been proposed to explain the RSD project's social, economic & environmental impact. Different studies show that

When rivers are purified

- Health conditions increase
- No tourism increase
- Newmarket emerge
- Living standards increase
- Access to open spaces or facilities

On the other hand, studies show that the RSD project has its negative impact:-

- While the relocation they lose their social value
- They lose their comparative advantage
- Living expense increase
- Unemployment increase

2.4. Empirical Literature Review

2.4.1. Introduction

The empirical review chapter provides an overview of the studies conducted by various researchers in the subject fields. We shall describe the studies of many researchers regarding the riverside development project's social, economic, and environmental consequences. First, we will present an empirical analysis of the social, economic, and environmental consequences, and then we will summarize and identify the gaps.

2.4.1.1. Empirical Review Related to Social Impact

Various studies suggest that the RSD initiative has a significant societal influence, both positive and bad outcomes, for example:

- 1) According to Cristina Vert, Gloria Carrasco-Turigas, Wilma Zijlema, Ana Espinosa, Lia Cano-Riu, Lewis R. Elliotte, Jill Litt, Mark J. Nieuwenhuijsen, and Mireia Gascon all agree (2019) The impact of a riverside accessibility intervention on usage, physical activity, and well-being: In a research conducted in Barcelona, Spain, a mixed methods pre-post evaluation on access to natural outdoor spaces can increase physical

activity, social cohesiveness, and better psychological well-being. Nature-based initiatives in socioeconomically disadvantaged communities may eliminate inequities in access to natural areas, establish appealing destinations for inhabitants, stimulate physical activity and/or social contacts, and enhance their health and well-being.

As per the study's objective, the study fills the gap that having access to natural outdoor places might promote physical activity, social cohesion, and psychological well-being.

- 2) According to Nebiyu's (2000) analysis, 99 percent of the relocated residents displaced by the Sheraton Addis expansion project were highly satisfied. The poll did, however, find that the relocation method has resulted in a large increase in the unemployment rate, which has climbed from 1.2 percent in the previous settlement to 11.1 percent in the present site. Furthermore, the study discovered that the partial resettlement strategy hampered social integration, as seen by the collapse of existing community ties. According to the poll, the disadvantages of migrating outside of the city include greater commuting costs and a fall in the monthly income of some household heads.

As per the study's objective, the study fills a gap that occurs while the resettlement method peoples face social integration issues, a lack of various amenities, and a loss in income.

- 3) "Riverside Neighborhood Development: The Case of Awash Melkasa Town, Oromia," Abdulmenan Abduselam Sani (2020). The study in Awash Melkasa, which is located along the Awash River, specifically on the artificial lake of the Awash Hydroelectric II dam, assessed the existing riverside development conditions and explored a design solution that overcomes the current challenges, and the proposed solution was a new development riverside neighborhood is required; the local government should develop rules and regulations to properly implement the riverside development plan. Aside from that, true public engagement is strongly advised at many levels to maintain the buffer zone issues. Furthermore, by improving riverbank activities for the unemployed, work possibilities can be established.

As per the study's objective, the study fills a gap by improving riverbank activities for the unemployed, work possibilities can be established.

2.4.1.2. Empirical Review Related to Economic Impact

Various studies suggest that the RSD initiative has a significant economic influence, both positive and bad outcomes, for example:

- (1) According to Endashaw (2016), in "Impacts of Urban Renewal Induced Displacement and Resettlement on the Economic and Social Life of Displaced People: The Case of YekaAyat 2 Condominium, Addis Abeba, Ethiopia," most displaced people had a lower living standard, most of them lost their jobs, especially private employees after displacement, low social and neighborhood activities in the new resettlement site, infrastructural problems, being displaced by force.

As per the study's objective, the study fills the gap that people who move from one place to another lose their social and economic value.

- (2) 'Riverside Development: the Case of the Lah River in Finote Selam Town, Amhara Region,' according to Fekadu (2020). Riverside projects provide various advantages, including improved environmental and water quality, tourism prospects, improved social services, and more social engagement in society.

According to the study's objective, the study fills a gap by demonstrating that the RSD project has several good effects or advantages in the environment and related amenities like tourism.

2.4.1.3. Empirical Review Related to Environmental Impact

Various studies suggest that the RSD initiative has a significant environmental influence, both positive and bad outcomes, for example:

Prabu P.C. (2009) studied "the impact of heavy metal contamination of Ethiopia's Akaki river on soil and metal toxicity on planted vegetable crops." Untreated sewage and industrial effluents were discovered to be the main sources of pollution to the Akaki water body, and irrigation with contaminated river water containing variable amounts of heavy metals leads to an increase in metal concentrations in soil and vegetables grown with the polluted water.

As per the study's objective, the study fills a gap that contaminated rivers cause several health issues.

2.5. Conceptual framework

2.5.1. Introduction

Project management is the application of processes, methods, skills, knowledge, and experience to achieve specific project objectives according to the project acceptance criteria

within agreed parameters. Project management has final deliverables that are constrained to a finite timescale and budget.

To have a successful project in the riverfront development project, we must employ the intermediate variable of directing and controlling resources to fulfill the project goal. And the independent variable is the river's purification, development, and deconstruction, as a result of which we will achieve a good healthy society, increased tourism, sewerage system reform, the invention of small and large market opportunities, and an increase in living standard, and comparative advantage. When we talk about comparative advantage, we might mean either good or negative.

2.5.2. Relationship between & among variables

- Purification of the river is an independent variable and one of the most significant jobs in the project. When the river is clean, the health conditions improve, the number of tourists grows, and the city breathes better because of the open space and public facilities.
- Along the river, there will be opportunities for small and medium-sized businesses, creating job opportunities for the community, and infrastructures will be upgraded as the project progresses. To archive these results, the project will require a transparent and accountable project management system. On the other side, most of them are economically poor and their source of income was the small markets like GULIT tea house, etc. . . because of the project, they couldn't survive their economical status.
- Because of the setback and other open areas, homes and other structures will be demolished throughout the project. During the deconstruction, it may have a positive or negative impact on society, because these people were living below the standard in terms of infrastructure and facilities, such as the number of families and the size of the house, so these people relocate and had a good shelter is a positive advantage and their life standard increase, but it also has its negative impact, which is their loss of social value, such as "EDIR, EKUB."

2.5.3. The research gap & expected solution

The riverbank development project, which is anticipated to cost 29 billion birrs (\$900 million) over three years, intends to improve the well-being of city people by minimizing

floods and pollution via the building of public spaces and parks, as well as bicycle lanes and walks along the river.

Riverside aspires to create a fresh image for the capital that fits the Aramaic meaning of its name: "New Flower." Addis Ababa will be made more habitable, not just by securing the river banks to prevent floods, but also by creating public green areas. Cafes and restaurants, together with the riverbank, will attract future real estate development and encourage international and domestic tourism in Addis Ababa.

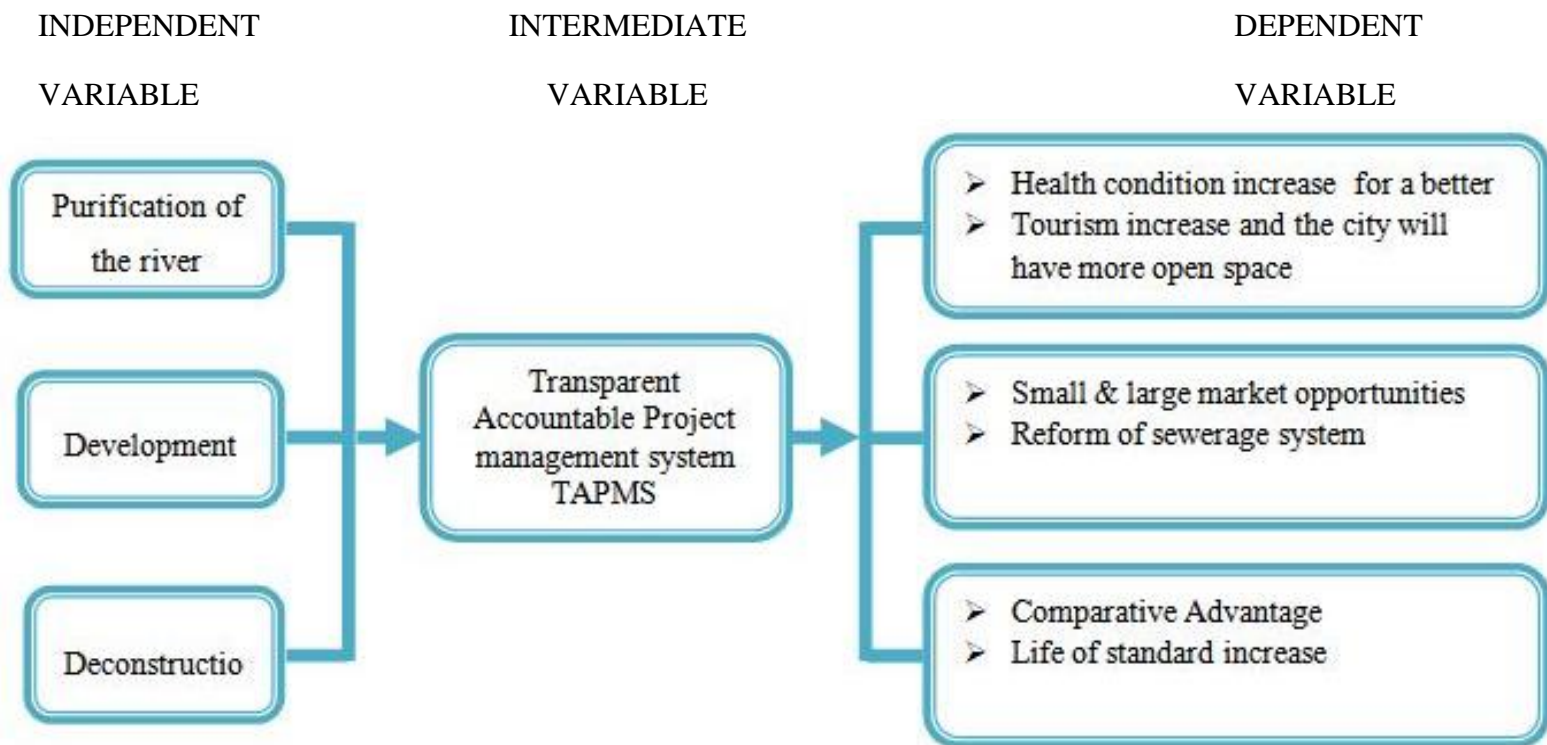
According to my investigation, there are few local studies on riverbank development projects. The majority of the studies focus on the project's economic and environmental benefits. There are only a few studies that discuss the social, and the majority of them focus on the effect of river pollution. The study's findings indicate that the government's influence in resolving these issues was negligible.

The completion of the project is expected

- a. City beautification or improvement: This is mostly motivated by politicians' conviction that only new and contemporary housing is worthwhile.
- b. Reduction of crime and health issues: According to this group, slum areas are breeding grounds for social and health problems, and these problems in low-income settlements might be handled simply by modifying the physical environment.
- c. Effective land use and public facility provision: - Land values typically rise in response to physical and economic expansion in inner-city locations. This, in turn, puts pressure on developers to rebuild properties with a larger return.

(Mihretu, 2005) define slum clearance and relocation as generally unproductive since resettlement regions are frequently poor producers of jobs, impose additional commuting expenditures on people, and these places frequently suffer from inadequate infrastructure. As a result, it has hurt low-income settlements. It has wreaked havoc on social systems and small companies.

2.6. Conceptual framework diagram



CHAPTER THREE

Research Design and Methodology

3.1.Introduction

The researcher's purpose is to clarify how the study will be carried out, what expertise is necessary, what information is required, and how information is obtained, the researcher first planned to guide the study solely through qualitative research. Thus, the grounds for using a qualitative technique stem from the necessity to explore the success and failure elements of the rap by investigating the experiences of target adolescents as well as varied stakeholders such as:-

- Government representatives
- Project management team members
- Individuals from the society
- Health office
- Research Experts in the area

Manning (1996) defines qualitative research as "research that creates descriptive material based on spoken or written words and observable behavior." The prospective respondents or participants will be viewed as "co-researchers" in this research study, and their appraisal of the significance of an event about RSDP will be reviewed in many circumstances. It is commonly claimed that qualitative research tries to comprehend the significance of a lived event from the participant's point of view (Jackson, 2003). Lived experiences are defined as "daily human experiences that are genuine to the people who have them" (Jackson, 2003). As a result, this study took a qualitative approach, usually employing qualitative data gathering methods that led to semi-structured open-ended questionnaires.

The research methodology's major goal is to clarify how the study will be carried out, what expertise is necessary, what information is required, and how information is obtained. The research methodology comprises the research approach, sample design-sampling procedure, sample size, data collecting source and instruments, data analysis methodologies, ethical considerations, validity, and reliability of the study.

3.2. Research design

Descriptive and explanatory design is an appropriate choice when the research aim is to identify the social, environmental, and economic aspects of the riverside development project by using qualitative research method.

Explanatory research is designed to gain insight into a situation about which little is known or if the interest is in developing a hypothesis that would be probably tested in another research (Diem, 2002) and the researcher persuades to use descriptive research design to assess the impact of the riverside development project concerning economic, environmental & social aspects.

3.2.1. Sample technique

❖ Secondary data review

To get an in-depth understanding of the studied locations, some important data was gathered by studying a large collection of literature and secondary materials. Secondary data, linked publications, periodicals, and pamphlets demonstrating the contribution examined in the literature section to support the study's findings. Furthermore, existing studies and records on the concerns were evaluated.

❖ Primarily data collection

Semi-structured interviews are commonly accepted as the best data collecting approach because they allow for the collection of material of sufficient depth and quality to offer a full picture of participants' experiences. The face-to-face interview, according to De Vos (1998), helps researchers understand the closed worlds of individuals, families, organizations, institutions, and communities. The goal of the in-depth, face-to-face interview is therefore to comprehend the interviewee's life experience or circumstance as articulated in his or her own words (De Vos, 1998). According to Kruger (1988), the spoken interview allows participants to get as close to each other as possible. Possible about their real experience As a flexible guide during interviews, the researcher strategically designed semi-structured open-ended questions. As a result, as a data collecting instrument or technique, the following semi-structured questions were delivered throughout this study.

3.3. Participant observant

One of the oldest methods of data collecting is observation. It is an indirect type of data collecting since, in most cases, it captures information without the respondents' full understanding. Observation is often regarded as having the following advantages over other techniques of data collecting. When other approaches are ineffective, this method provides information. Use topic selection processes that are less difficult and take less time. When respondents are unable or unwilling to collaborate or provide information, offer data.

Approaches reality in its natural structures and analyses events as they unfold. Provides personal information rather than depending on other people's reports and allows for the collecting of a wide variety of information, even if this information is useless at the time of research.

3.4. Sample size

Overall, the researcher was able to conduct semi-structured interviews with a total of 50 participants or responders. Respondents supplied critical information regarding the various situations about the RSDP. The information gleaned from these interviews served as the foundation for the study's main findings. The participants are selected based on the type of the project and those who are related directly and indirectly to the project. The frames that are used to limit the number of the sample populations that are taken under consideration are:-

3.4.1. Interviews with key informants (IKI)

I. Government representatives

The interviews were designed to elicit respondents' free thoughts on several significant themes, including background, rationale, principal goal, and key components or activities, as well as targets or projected outcomes, mid-term and terminal reports, which include, designing, planning, implementing, monitoring, and evaluating procedures at each level. Participation of important stakeholders in various stages of the project.

II. Project management team members

Since the objective of the PM team is focused on the overall activity question like What education and training do you have to perform your duties? How would you describe your management style? What kind of impact do you expect from this project? Will you kindly share the appropriate documentation? What kind of challenges are you facing and will face in the future?)Do you think this project will affect the life of society in particular and the country in general? Will be asked

III. Individuals from the society

This key informant interview aims to see the socio-economic impact and its questioner which is going to measure mostly the society's comparative advantage. The questions were how serious is the problem of River water pollution to your family? What is your social and economic background before coming here? Have you faced any social and economic crises after displacement?

IV. The health office

Water Pollution causes a serious problem in the health of the society so there will be an interview with health experts regarding the river what is the impact of the riverside development project and health and there will be questions like How do you evaluate the problems caused by water pollution? What are diseases that repeatedly happen down the stream of the river due to water pollution?

V. Research Experts in the area

Experts have their role in the project because they do have a prior study on the impact, advantage & disadvantage of a specific project in these cases will be asked questions related to RSDP concerning water pollution. Some of the questions that will be asked are What are the main determinants of the implementation of pro-environmental state intervention?

3.5.Sampling technique

3.5.1. Sampling and sampling techniques

As previously said, the technique used for this study was qualitative, which generally invites the use of qualitative sampling methods to determine where the study would be conducted, how many respondents or participants would be included in it, and who these respondents would be, how they would be chosen, and ultimately, what fraction of the population would be taken into account the research was conducted in Addis Abeba. Some respondents were chosen at random using a non-probability sampling method or process (non-statistical estimates). Non-probability sampling is commonly recognized to be used for exploration and qualitative research, as it does not apply the rule of probability theory and does not claim repetitiveness.

The following non-probability sampling methods or approaches were used:

- Objective (Judgmental sampling)
- Using snowball sampling
- Inadvertent sampling (Convenience, grab, and haphazard sampling)

As a result, the following people were chosen to be sampled:

- Individuals with a fundamental and extensive understanding of RSDP
- The individuals who were in charge of the establishment or introduction of the projects
- People who were major stakeholders, such as government agencies

Overall, the researcher was able to conduct semi-structured interviews with a total of 50 (20 professionals and 30 from the society) participants or responders. Respondents supplied critical information regarding the various situations. The information gleaned from these interviews served as the foundation for the study's main findings.

3.6. Data processing

According to many studies, qualitative research begins with assumptions, a worldview, the potential use of a theoretical lens, and the investigation of research problems inquiring into the meaning individuals or groups attach to their problem encounter in a specific topic. According to Creswell (2007), qualitative researchers employ an evolving qualitative method for data collecting in a natural context-sensitive to the people and places under investigation, as well as data processing that is inductive and establishes patterns or themes. The final written report or presentation includes the realities and voices of the participants, the researcher's reflexivity, and the sophisticated description and interpretation of the problem, as well as an extension of the literature for immediate actions (Creswell, 2007, p 37).

As a researcher used qualitative data collecting methods, data processing and analysis were carefully managed in a continuous process of analyzing information as it was acquired, clarifying it, developing more questions, validating it, and drawing conclusions. The analysis should not be postponed until all of the data has been gathered. As a result, data analysis became a constant process of analyzing information as it was gathered, categorizing it, validating information, and making conclusions.

Finally, the researcher double-checked his data and conclusions by presenting them to his peers and a few important responders who were involved in the youth football initiative in the study locations. Furthermore, during the analytical phase, a body of literature was examined to support or reject results.

3.7. Method of data analysis

The data acquired from the research representative sample via, semi-structured interviews, and focus groups was processed and analyzed using several approaches. The study include qualitative analytical methodologies. Finally, the research will provide enough interpretation and discussion to back up the analysis.

3.8. Validity and Reliability

3.8.1. Validity

The research's validity and reliability were taken into account. The study subject inspired the development of a questionnaire. The variables are taken from Emanuel Camill Eri's book Project Success Critical Factors and Behaviors. During data gathering, I will work with respondents to gain their trust. Based on this, the researcher feels that the sample used in this study appropriately represents the characteristics of the entire population. In addition, a Cronbach's Alpha reliability test was performed using SPSS for the Likert-scale type questions. Cronbach's alpha is a statistic used in most social scientific research scenarios to examine the reliability, or internal consistency, of a group of scale or test items.

3.8.2. Reliability

For this research, we use both explanatory & descriptive research. When we say Descriptive analysis is a sort of data analysis that helps to explain, illustrate, or constructively summarize data points so that patterns can develop that satisfy all of the data's conditions. It is one of the most crucial procedures in statistical data analysis. It provides you with a conclusion about the distribution of your data, assists you in detecting typos and outliers, and allows you to spot commonalities among variables, preparing you for additional statistical analysis. Measures of frequency, central tendency, dispersion or variation, and location are the four forms of descriptive analysis. These approaches are best for dealing with a single variable at a time. Explanatory research is a study approach that investigates why something happens when there is minimal information available.

CHAPTER FOUR

Result and Discussion

4.1 Introduction

This chapter summarizes the study findings based on the data obtained. The interview will be the primary source of data, and the findings will be presented in connection to the study's research objectives. The data analysis approach is previously covered in the methodology chapter.

4.2 Demographics of the Interviewees

4.2.1 Categories of Interviewees

Purposive sampling is used to pick interviewees. Purposive sampling is a sampling approach used by qualitative researchers to attract individuals who can give in-depth and specific information on the topic under inquiry. In the case of these research expertise in the study area, relocated people, the project management team, government representatives in the health sectors and individuals are those who were selected for the interviewees and secondary data.

In addition, the study included a group of six to seven people who took part in focus group talks. Despite variances in family size, age, and socioeconomic status, the family members share a cultural history and way of life. They were also moved from the same area. Because the focus group discussion members were so diverse, many different points of view were presented.

4.2.2. General Description of Participants

The selection of the interviewee are

Table 4.1 Number of participants included in the research

Interviews with key informants	Numbers
Government representatives	5
Project Managers	5
Individuals from the society	30
Health Officers	3
Research experts in the study areas	2
Relocated peoples	5
Total	50

4.3 Major Finding on the Social Aspect

4.3.1. Social aspect in the relocation program

Regarding the government's attention to social issues, particularly the social capital of displaced persons during the relocation process, all interview and focus group discussion participants reported that they had talks with government officials more than twice. As they pointed out, the discussion was primarily intended to inform them of the relocation program's goal and to persuade the relocated people that, while they were displaced from their homes, it was for the purpose of transforming Addis Abeba, which ultimately contributes to the development of their country. The other source of contention, according to the participants, was how the compensation would be paid. They were all in agreement that the conversation did not involve any social problems.

One important informant, who was the expansion project's coordinator and a part of the rehabilitation team, also verified that the government had discussions and socioeconomic analyses prior to the move. According to the organizer, despite the name "socio-economic," the evaluation is only focused on the economic component of the relocated households and the type of housing they like to live in, i.e. condominiums, Kebele houses, or Rented Houses Administration Organization "Yekiray Betch Astedader Dirijit". They also stated that it is apparent that when people are transferred from places where they have lived for a long time, their social lives suffer and they confront social crises.

They also stated that, for a variety of reasons, the government prioritizes the redevelopment of the city and the quality of housing that the displaced residents would enjoy. Finally, the coordinator decided that the government will pay close attention to social factors, particularly the social capital of displaced individuals, in the future, learning from prior relocation initiatives.

4.3.2 The Outcome of the Relocation on Social Capital

The conceptual and structural elements of social capital can be used to explain the impact of the relocation program as a result of the expansion project.

With some exception of participants, all of them reported that the migration had damaged their former social relationships or network. The effect of the displaced social relationships may be shown using the three aspects of social capital: bonding (strong tie), bridging (weaker additional community network), and connecting social capital.

Participants pointed out that the relocation dismantled the strong ties between members of a household, kinship network or community. They said that before the relocation there was a strong social attachment with a strong sense of community among themselves. A significant number of respondents started to explain this by using the phrase “everything was left there.” Participants confirmed that they had frequent contact with their relatives and do help each other before they came to here. They stated that it is far from the center and therefore needs time, cost and other commitments to travel and see each other.

We used to have a strong social network. Furthermore, we lived in a communal and shared manner of life. On the contrary, the lifestyle becomes extremely different here, and the housing settings are not the same as previously. Previously, we shared common items such as the toilet, kitchen, and others, which allowed us to connect more effectively. Because everything is private here, individuals began to live an autonomous lifestyle. Even those who live close to one other don't know each other.

Previously, we had a chance to frequently meet with people in coffee ceremony, Idir, church and market place. Here, once I get home from the work, there is nowhere to go. It is hard to adapt the social because the church, market are too far to access.

We used to trust each other before the move. We may not shut our house doors when we depart, or we may leave our possessions outside. We don't know each other here, and it's tough to leave our clothing or anything else outside. We seldom ever see open doors throughout the day. There is no money lending or borrowing like there was previously. It is also difficult to commit our house or child to neighbors if we are going away for a holiday or for other reasons. Family members or other relatives should be there for this purpose. Our children were raised in the house next door at the time. In terms of child care, we don't have faith in our neighbors.

4.3.3 Social Support Mechanisms like Idir, Iqub, Mahiber and Others

Previously to the relocation, nearly all participants were members of traditional associations such as "Idir" (traditional social associations), "Mahber" (religious associations), and "Ikub" (economic associations), which functioned as powerful social security and support systems for the moved. Because of the move, these conventional groups and social institutions have already been demolished, according to participants. Participant three explained how the move affected the function of their "Idir" as follows:

Previously, we have had women Idir and male Idir and it was so strong. We used to even participate in a funeral ceremony of a person who was not a member of our Idir. We used to spend day and night comforting the members of the deceased family. Subsequent to our relocation, the previous Idir was dismantled and we are now trying to establish new Idir which is not of course as strong as before. Here, we simply attend one's funeral procession and that is all. This shows that the old and vulnerable people are highly affected as their social and economic needs are not being responded like before; and therefore they are having lack of support from the respective community.

It is true that the relocated individuals have nicer housing than previously. However, the prior support mechanisms and social networks no longer exist. This has a detrimental social, economic, and psychological impact on the individuals who have been displaced.

4.4 Major Finding on the Economic Aspect

4.3.1. Economic aspect of the project

According to Cernea (2004), development-induced displacement may leads to unemployment, homelessness, landlessness, marginalization, food insecurity, loss of access to common property, erosion of health status, and social disarticulation, in which five of the risks are economic in nature and whose cumulative effect is the onset of impoverishment.

According to the data acquired from interviews, the economic issue has both good and bad characteristics. The increased tourism and market expansion associated with the project have a high substantial value for the country. Nowadays, tourism is also known as green infrastructure, and it plays an important role in transforming the city's image.

The flip side of the coin is the negative impact on those who are displaced or moved. The displacements experienced various obstacles both during and after relocation, including a substandard dwelling, retail center, condominium pricing, transportation, and additional costs for decorating and completing.

The majority of them used to run small businesses likeas selling tea, "Tela" (local beer), bread, "Enjera,", "Gulit," and other items. They are now out of employment since they have lost their clients, and they are not permitted to establish or develop similar markets in their new resettlement area.

Participants also mention that they had a major market center back then, and there was a lot of business going on. This area lacks a big market center. Even if we can get what we need from the existing crowded markets, the price is too high. As a result, we must shop in "Atiklit Tera" and "Merkato." We don't go to the market center as much as we used to.

4.3.2 The Outcome of the Economic Aspect

According to the scholars and project managers the riverside development project has a huge significant on the economy for the country and creates job opportunity for the society.

As the project manager team mentioned these kind of projects creates new job opportunity, new business ideas as well.

Polluted water has two economic consequences: To begin with, pollution decreases the overall quantity of acceptable water available for domestic use as well as agricultural and industrial use. As a result, there are economic expenses associated with water being kept back from the supply. Second, there are expenses associated with the consumption and production of dirty water. The expenses of producing with polluted water include a reduction in both product quality and quantity.

4.3.3 Economic Support Mechanisms like Idir and Ikub

Almost all participants were members of traditional groups such as "Ikub" (economic associations) prior to the migration, which served as significant economic security and support networks for their financial concerns. Because of the relocation, these traditional groupings and social institutions have already been shattered; according to members, it is now extremely difficult to trust and save money for the (economic association) "Ikub."

Participants also mention that the use of "Ikub" was also one source to buy house hold items as a neighbor, nowadays to buy new house holds is very expensive we couldn't afford there is no any trustfull economic association in the community.

Participants pointed out that they have 5 to 7 "Idir" for affording one's funeral procession since they couldn't afford at once but the relocation also disturb their economic aspect. The economic and the social are very related as the participants mentioned even though they are relocated they still receive money from their Idir but they couldn't have any items like chair, table, tent and others and peoples they don't come to comfort them as before because of the distance of each other that make them bad or depressed specially for the elder group of age.

Participants also mention that they couldn't afford the expense of their transportation in the past because the distance of their work and living was within the city and they could afford it, but now they spend a lot of money on transportation and they also spend a lot of time to turn to their home, at the same time they used to have many activities after working hours but now because the distance of their living is too far and the time to take transportation is too long.

4.5 Major Findings on the Environmental Aspect

4.3.1. Environmental aspect of the project

According to the participants those who are elders mention that they were swimming in the rivers, played football and other games on buffers, but for the past few decades that has not been possible, as the water became more and more polluted due to urban development.

The government bodies also mentioned that and we were suffering floods during rainy season, and every years the city administration give different kind of alarms to protect the society but there were no any define solutions in the previous.

According to Dr. Melese rivers are essential for life; there is an unbreakable relationship between the natural and human systems. Aquatic ecosystems give ecosystem services to the human system; on the other hand, the human system consumes these services, resulting in negative effects on the natural system.

Because of the polluted rivers there are numerous of heath problem in the society like non stop cough, diarrhea, typhoid, typhus, skin problem, asthma and others.

4.3.2 The Outcome of the Environmental Aspect

Rivers are highly vital components for a city to breathe; according to Dr. Mekuriya, rivers provide more oxygen than trees, therefore striving to clean up polluted rivers is a worthwhile undertaking in many ways and at the end of the project they expect that the ecosystem will maintain it process.

According to the scolars river ecosystems are flowing streams that drain the landscape, and they involve biotic living interactions between plants, animals, and microorganisms, as well as abiotic nonliving physical and chemical interactions between their many sections. River ecosystems are part of larger watershed networks or catchments, in which smaller headwater streams drain into mid-sized streams, which drain into larger river networks. The gradient of the river bed or the velocity of the water determine the key zones in river ecosystems.

Scholars anticipate that vanished species, algae, and fish will reappear in the future, and that the ecological process will progressively cycle.

Water pollution occurs in horticulture when fertilizer inputs are applied at rates greater than the recommended amounts, and most of the soil is contaminated by various sources of waste, as we all know that Addis Abeba's sewerage system runs through the rivers, and we can say that the majority of the urban agriculture is contaminated, causing a constant health problem in the society.

Pollution reaches urban rivers from a variety of sources, including industrial discharges, mobile sources, residential/commercial wastewater, rubbish, and polluted stormwater runoff from urban landscapes.

CHAPTER FIVE

Summary, Conclusions and Recommendations

This chapter discusses the final findings, including a summary, conclusion, and recommendations. The researcher broadened the key principles of this study by providing the thesis result and lastly recommending a solution to the situation at hand.

5.1 Summary

This study was conducted on the social, economical and environmental aspect of the river side development project. The main objective of the study is to investigate the implication of riverside development projects in Addis Ababa in the case of Atlas area. Data related to this study was collected from 50 interviewee, group focus, secondary data and observation. Data was analyzed through qualitative analysis, snow balling and presented through statement by words.

5.1.1 Social Aspect

According to the study, most displaced people were at worse living standard, most of them lost their job especially private employees after displacement, low social and neighborhood activities in the new resettlement site, infrastructural problems, being displaced by force, low involvement in the decision making process, lack of precondition done on behalf of government for the displacees, low consideration of socio-economic cost of displaced peoples, lack of coping mechanisms formulation to solve the problem of displacees , unaffordable compensation and implementation of displacement and resettlement without proper plan.

5.1.2 Economic Aspect

According to the study, many people lost their economic sustainability as a result of the project, and the majority of them live in a low quality of living since they were relocated to a new site and cannot support or afford the living status of the new location. The local administration, on the other hand, is gaining a lot of money from tourism and other associated amenities, as well as new job prospects.

5.1.3 Environmental Aspect

According to the research, the project's product not only provides recreation but also has a significant influence on the city's ecology, the repair of the sewage system, the lack of floods during the rainy season, the improved health of the community, the appearance of new species, and others.

5.2 Conclusions

This study has shown the following findings:

- ❖ The vast number of displaced people in the resettlement region expressed concern about finance, shopping centers, joblessness, transportation, suitable housing, working space, and inexpensive condominium pricing. This lowered their level of life at the new resettlement site, and the more sorrowful they were.
- ❖ Most social and community activities were halted due to a lack of familiarity, departure from prior neighborhoods, awkward building design for this purpose, personal difficulties, economic imbalance, and fear. As a result, one of the social consequences of urban renewal-induced relocation and resettlement is the challenge of engaging in social activities. As a result, this type of resettlement has a detrimental social impact on the lives of those who have been displaced.
- ❖ Most displacees feel uncomfortable in the new resettlement sites because of being strange in the new area, lack of sustainable economic opportunities, and deficiency of infrastructures, problems in coordination with government officials, crime and lack of freedom as they had in their original homestead. This made them to resist the move from their previous homestead, so that, this kind of resettlement elicit psychological impact on the minds of displacees.
- ❖ Most of the respondents responded that, resettle the displacees into one resettlement site should be done to sustain their social relationships such as Edir, Equb and others, provide reasonable compensation, create job opportunities, consider the displacees status in the planning and implementation process, offer a standard house and fulfill all infrastructures. So, prior of displacing people from their original homestead all aforementioned things must be fulfilled at destination area.
- ❖ According to the experts, in order to keep the river clean, the sewage system must be maintained by differentiating solid and waste disposal and planting trees that can assist to filter the river.
- ❖ Keeping the river clean aids in the preservation of the city's environment and the emergence of new species.
- ❖ Scholars believe that maintaining the river clean helps to provide clean urban horticulture goods to society.

5.3 Recommendations

The purpose of this study was to look at riverbank development projects in Addis Ababa and assess their features in terms of social, economic, and environmental challenges. The findings of this study were based on interviews with government representatives, the project management team, relocated individuals, field research specialists, and secondary sources. The highlighted elements were then recommended to be used as suggestions to help developers with future waterfront development projects.

5.3.1 Recommendations for best practice for riverside development in the social aspect

In this section, a set of recommendations is provided to improve practices in waterfront development. These recommendations emerge from the conclusions drawn from this research and are aimed at enhancing riverside development project in Addis Ababa. The following recommendations are presented in five categories:

1. The government must work with individuals by not relocating them but by providing a well standard house with sufficient infrustrtucte;
2. If the government decides to rebuild waterfront development, it should focus on the activities or facilities that surround the riverbank development project in order to integrate the current society.
3. The government must give a responsibility or accountability in order to maintain the river clean
4. Having a solid economy for living is very vital for a family. These projects must involve not just outdoor activities but also individuals who perpetuate the history and social values of that town.
5. The job opportunity must be presented first to the residents of the region. an awareness how is the value of maintaining the environment clean
6. By not transferring people, it is possible to preserve a history as well as social worth from generation to generation.
7. Having a decent ecosystem not only helps to maintain a beautiful city but also raises awareness about the need of keeping the environment clean.

5.3.2 Recommendations for future research

This study finishes with several research ideas for the future. In these types of megastructure projects, the well-being of society is a major value of one country. The project has only been underway for three years, and there will be numerous issues concerning the social, economic, and environmental aspects. The city government must consider the needs of individuals by not relocating but rather providing standard living space; if we relocate people, the history of the community, its identity, and its well-being will be destroyed at the same time.

REFERENCES

- Aregawi T. (2014) Peculiar health problems due to industrial wastes in Addis Ababa city: the case of Akaki Kality industrial zone. M.sc. Thesis. Addis ababa university.
- Definition from APM body of knowledge 7th edition
- National water development report for ethiopia; december 2004 UNEP, UNWTO 2005, pp. 11-12
- Amy. (2005). Chicago river corridor design guidelines and standards (second ed.). Chicago.
- Birhanu, z. (2006), Impact of urban redevelopment on the livelihoods of displaced people in Addis Ababa: the case of Kasainchis.
- Adam hayes updated October 26, 2020 reviewed by peter westfall fact-checked by Katrina Minichiello.
- Cernea, M. (2004). Impoverishment risks, risk management, and reconstruction: a model of population displacement and resettlement. Paper presented to the un symposium of hydropower and sustainable development, Beijing october 27-29
- Mitchell, I.a. staeheli, in international encyclopedia of human geography, 2009
- Diyun H, 2009. Urban waterfront landscape planning in Sweden
- Economic commission for Africa (2006), Water in Africa, management options to enhance survival and growth.
- Endashaw, G. (2016), Impacts of urban renewal induced displacement and resettlement on the economic and social life of displaced people: the case of Yeka Ayat 2 condominium, Addis Ababa, Ethiopia.
- Ervin H. Zube, gary t. Moore, advances in environment, behavior, and design. Vol. 1, plenum press, New York, USA, unknown.

- Federal environmental protection authority (fepa, 2005). Assessment report on the status of the Akaki rivers water pollution, in collaboration with Addis Ababa city administration epa, and Oromia regional national state environmental protection office.
- Gaffen, y. G. (2004). Cities riding waves of success with well-planned waterfront restoration. *Public management*, 86(10).
- Griffin, t. – hayllar, b. – edwards, d. 2008. Places and people: a precinct typology. In b. Hayllar, t. Griffin, & d. Edwards (eds.), *city spaces - tourist places: urban tourism precincts* (pp. 39-61). Oxford, uk: butterworth- heinemann.
- <https://wateractionhub.org/>
- <https://www.nationalgeographic.com/environment/article/rivers>
- <https://www.ncbi.nlm.nih.gov/books/nbk310922/>
- Institute, A.U. (2008). *Urban planning standard*. Bahir dar.
- Jansen-verbeke, m. 1986. Inner-city tourism: resources, tourists and promoters. In *annals of tourism research*. Issn 0160-7383, 1986, vol. 13, no. 1, pp. 79-100.
- Krolkowski, c. – brown, g. 2008. *The structure and form of urban*
- Mihretu, t. (2005), *Housing strategies in inner-city areas: the case of low-income housing in inner-city Addis Ababa*. Unpublished ma thesis, Addis Ababa.
- Nebiyu, b. (2000), *The impact of development-induced urban resettlement schemes on relocated households: the case of Sheraton Addis hotel project*, Addis Ababa.
- Sharpley, R., – tefler, d. J. 2002. *Tourism and development*. London & New York: routledge.
- *Tourism precincts: setting the stage for tourist performances*. In b. Hayllar, t. Griffin, & D. Edwards (eds.), *city spaces - tourist places: urban tourism precincts*, pp. 127-149. Oxford: butterworth-heinemann.
- Yakob, d. (2015), *Inner-city renewal and its impact on the economic dimension of livelihoods of displaced people in Addis Ababa city, Ethiopia: the case of people relocated from Lideta to Goffa*.

APPENDIX
St. Mary's University
Post Graduate program
Department of Project Management

For a study project, a semi-structured interview and an open-ended questionnaire are used. This proposal investigates the implication of riverside development projects in Addis Ababa in the case of the Atlas area and examines the positive and negative impact of riverside development projects on the social, economic & environmental aspects.

I. GOVERNMENT REPRESENTATIVES FROM

a. Health Office

1. How do you evaluate the problems caused by water pollution?
2. What are diseases that repeatedly happen down the stream of the river due to water pollution?
3. How do you evaluate the status of water-related infections?
4. What possible alternative solutions do you recommend to mitigate the problems?
5. Your comments or suggestions regarding the water pollution & quality of Addis Ababa River, the health implications of the pollution, and the socio-economic problems that arise in the surrounding rural communities?

b. Addis Ababa riverside development

1. What is your experience with Water Pollution?
2. How long have you studied Water Pollution?
3. What Creatures are affected by Water Pollution?
4. What is the most polluted area you have ever seen?
5. How does Water Pollution affect the Earth? CITY
6. Why do we need to protect our water sources from Water Pollution and what do you expect from RSDP?
7. Do you think the development of the riverside is kind of a waste of land resources and money, considering the conflict between increasing population and lack of accommodation?
8. What do you think about the influence of the development of riverside on the land use pattern surrounding the side of the river, what kind of influence does the riverside have on the land value?
9. How did the riverside influence the urban development of Addis Ababa in your mind?

10. Is the development of the riverside will inevitably lead to the relocation of residents, how did the government resettle those residents, and how do the residents think about the relocation, do you think it is necessary to relocate a local community to give the way to the development of a riverside?
11. As far as you know, how do the residents in Addis Ababa think of the riversides, and what kind of role does the riverside play in their daily life?
12. Do you think the riversides in Addis Ababa were fully utilized?
13. What do you think about the so-called riverside culture in Addis Ababa?
14. Do you think there is community participation in the planning and development of the riverside?
15. What are the factors that delay the development of riversides, especially along the river?
16. What are the main gaps and limitations of current green space (riverside) planning practices?

II. PROJECT MANAGEMENT TEAM MEMBERS

- 1) What education and training do you have to perform your duties?
- 2) How would you describe your management style?
- 3) What kind of impact do you expect from this project?
- 4) Will you kindly share the appropriate documentation?
- 5) What kind of challenges are you facing and will face them in the future?
- 6) Do you think this project will affect the life of the society in particular and the country in general ? in what aspects?
- 7) If you have anything to add you are warmly welcome.

III. RELOCATED PEOPLES

A. Focus Group Discussion Guiding Questions for Relocated People

1. How do you see the impacts of the relocation program on social organization, trust, level of reciprocity, neighborhood ties, and other networks of relocated people?
2. If you are unable to maintain the previous social capital, what are the main coping mechanisms employed (establish a new one or any other)?
3. How do you explain the outcome of the relocation on the level of contact of the community with different entities such as the local government, central government, church, NGOs, market, and international organizations?
4. What was governmental and nongovernmental stakeholders' assistance to rebuild social capital among the displaced in the new settlement area?

5. How do you see the availability of services and institutions that helps to rebuild social capital among the relocated people in the new location?

B. Interview checklist for the relocated peoples

1. Personal information
2. What is your social and economic background before coming here? What about after coming here?
3. Have you faced any social and economic crises after displacement?
4. Were you voluntary to leave your original residential areas and resettled in _____? How and Why?
5. What was the extent of social infrastructures immediately when you arrived there?
6. What were your expectations about the resettlement site before your displacement?
7. If you were forced to displace, what prospect did the government give you to displace? Were those promises fulfilled?
8. Do you participate in the planning process of displacement and resettlement?
9. What were the preconditions the government did for the displaced before they were displaced from their original homestead?
10. For urban renewal and settlements what government has to improve to minimize these problems?

IV. RESEARCH EXPERTS IN THE AREA

1. What are the main determinants of the implementation of pro-environmental state intervention?
2. Will, you kindly share with us your experience
3. The project, which will be built with partial financial support from the Chinese Government within three years, is aimed at making Addis Ababa what is the economic implication for the society and the country
4. If you have anything to add you are warmly welcome.

V. INDIVIDUALS

i. Open-ended Questionnaire for sample Households

- (1) Why do you prefer the riverside rather than the neighborhood reaction center?
- (2) What kind of attraction you would like to see in the place of the river?
- (3) Please state your reason for choosing this attraction?
- (4) Would you be concerned about the number of tourists coming into your local area?
- (5) Do you think the riversides can be representative of the city image of Addis Ababa?
- (6) How do the tourists appraise the riversides in Addis Ababa?

- (7) Are you aware of any riverside development services?
- (8) What are the root causes of problems along the river?
- (9) Are there any problems that you faced that affect your livelihood activity because of the river?
- (10) How serious is the problem of River water pollution to your family?
- (11) Have you faced any water-related animal health problems before?