Addis Ababa University

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Center for Environment and Development

Adequacy of Ethiopian EIA Procedure and Its Implementation: Case of Yeka Abado, and Kasanchis Condominium Projects

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Declaration

I declare that "Adequacy of Ethiopian EIA Procedure and its Implementation: Case of, Yeka Abado, and Kasanchis Condominium Projects" is my own work and that all sources that I have used or quoted have been indicated and acknowledge by means of complete references.

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Acronyms

CSA	Central Statistical Agency
EHRS	Ethiopian Highland Reclamation Study
EIA	Environmental Impact Assessment
EIS	Environmental Impact Statement
EPA	Environmental Protection Authority
EPRDF	Ethiopian People's Revolutionary Democratic Front
ESIA	Environmental and Social Impact Assessment
EU	European Commission
FAO	Food and Agriculture Organization
FDRE	Federal Democratic Republic of Ethiopia
GTZ	German Technical Corporation
IHA-UDP	Integrated Holistic Approach Urban Development Project
IHDP	Integrated Housing and Development Program
IHDP	Integrated Housing Development Program
MDGs	Millennium Development Goals
MSE	Micro and Small Enterprise
MWUD	Ministry of Works and Urban Development
NGOs	Non-Governmental Organizations
SCRP	Soil Conservation Research Project
UNDP	United Nations Development Programme
UNEP	United Nations Environmental Programme
WHO	World Health Organization

Abstract

The absence of evaluation results from project EIAs limits access to reliable legislative and administrative information, hindering effective mitigation of environmental and social impacts. Thus, analyzing Ethiopia's EIA framework and the status of environmental and social impact assessments in condominium projects is essential. This study examines the adequacy and execution of the Ethiopian Environmental Impact Assessment (EIA) system, with a specific focus on condominium projects in Addis Ababa. It addresses and evaluates the legislative and procedural aspects of EIA in Ethiopia. Utilizing a survey-based approach, the research integrated document reviews, field observations, and feedback from stakeholders through questionnaires, interviews, and focus group discussions. A total of 100 questionnaires were distributed to stakeholders, including regulatory bodies, project proponents, EIA practitioners, NGOs, and academic institutions, to assess their views on EIA legislation, processes, and implementation. Interviews and focus group discussions provided insights into community perspectives on environmental and social impacts. Field observations were conducted to verify both existing and unforeseen environmental impacts using descriptive qualitative analysis method. The findings highlight varied levels of familiarity with EIA legislation among stakeholders, with EIA practitioners demonstrating the highest understanding. Perceptions of the clarity and effectiveness of the legislative framework were mixed, with regulatory bodies and EIA practitioners generally finding it clear, while others expressed dissatisfaction. Stakeholder opinions on public participation, community concerns, and the effectiveness of EIA in managing cumulative impacts varied. Key issues included inadequate administrative procedures, poor communication, and ineffective mitigation measures. The study also revealed concerns about the integration of EIA into development planning and its alignment with Sustainable Development Goals (SDGs). Focus Group Discussions revealed both positive and negative impacts of condominium projects, such as changes in air quality, infrastructure, and community dynamics. The study underscores significant strengths and weaknesses in the Ethiopian EIA framework, emphasizing the need for improved procedures and implementation to support sustainable development.

Keywords: Environmental Impact Assessment; legislative framework, Management Plan; Implementation; Condominium

Chapter 1:- Introduction

1.1. Background of the Study

Environment Impact Assessment or EIA is defined as the study to predict the effect of a proposed activity or project on the environment (Jain, Urban, Stacey, 1977). A decision making tool, EIA compares various alternatives for a project and seeks to identify the one which represents the best combination of economic and environmental costs and benefits. EIA systematically examines both beneficial and adverse consequences of the project and ensures that these effects are taken into account during project design. It helps to identify possible environmental effects of the proposed project, proposes measures to mitigate adverse effects and predicts whether there will be significant adverse environmental effects, even after the mitigation is implemented. By considering environmental effects and mitigation early in the project planning cycle, environmental assessment has many benefits, such as protection of environment, optimum utilization of resources and saves overall time and cost of the project. Properly conducted EIA also lessens conflicts by promoting community participation, informs decision makers, and helps lay the base for environmentally sound projects. Benefits of integrating EIA have been observed in all stages of a project, from exploration and planning, through construction, operations, decommissioning, and beyond site closure.

EIA's main purpose is to ensure that the impacts of projects are adequately and appropriately considered and mitigation measures are incorporated when decisions are taken. In the decision-making process, EIA provides a forum for public involvement. Before making decisions, EIA suggests mitigation strategies that need to be considered from project initiation to decommissioning phases through environmental impact statement, EIS. As part of the EIA process, EIS is a key document for reporting the expected impacts of a project, its mitigation measures, and management plan (Anifowose et al., 2016; Badr et al., 2011).

EIA is one of the successful policy innovations of the 20th Century for environmental conservation. Some decades ago, there was no EIA but nowadays, it is a formal process in many countries and is currently practiced in more than 100 countries (Christopher Wood; EIA in Developing countries: EIA Centre, University of Manchester). EIA as a mandatory regulatory procedure originated in the early 1970s, with the implementation of the National Environment Policy Act (NEPA) 1969 in the US. Much of the initial development was in a small number of high-income countries, like Canada, Australia, and New Zealand (1973-74). However, there were some developing countries as well, which introduced EIA relatively early - Columbia (1974), Philippines (1978). The EIA process

really took off after the mid-1980s. In 1989, the World Bank adopted EIA for major development project, in which borrower country had to undertake the EIA under the Bank's supervision.

In Ethiopia, for a project financed by some domestic banks as well as international development partners submission of EIS is a pre-requisite to secure the grant (Lawler and Milner, 2005; Anifowose *et al*., 2016). Once the EIS is submitted, in most cases it is not properly monitored and audited, as a result it poses environmental as well as social impacts to the community and environment (Cannaos and Onni, 2019; Kamjo, 2017). An investigation results on the evaluation of EIS show that some environmental impact statements are incomplete and have gaps in their technical and scientific processes and thus challenge the principle of EIA (Cannaos and Onni, 2019 Cannaos and Onni, 2019). EIS quality evaluation is significant to rectify the gaps and to improve the quality of the report earlier (Anifowose *et al*., 2016; Wilson *et al*., 2017).

Ethiopia is working to achieve sustainable development goals by constituting environmental issues in the constitution, ratifying environmental policy, and proclamations (FDRE, 1995; FDRE, 1997; FDRE, 2002). With this, EIA proclamation number 299/2002 urges an obligatory submission of EIS to all type of projects (FDRE, 2002). In Ethiopia, even though EIA become a legal requirement it has a number of constraints that makes it unsuccessful in terms of using it as a frontline instrument for environmental protection and thereby to sustainable development goals. Similarly, some condominium projects in Addis Ababa have been causing social and environmental impacts may be due to the absence of EIA, or poor quality of EIS, or the EIA implementation gaps. Even if the problem stands vividly no sufficient empirical evidence supported research to inform decision makers, regulatory bodies and community at large. Therefore, this proposal intended to assess the efficiency of Ethiopian EIA procedure and evaluate the implementation status of EIA in condominium projects that are constructed in Yeka Abado, and Kazanchis Sites between 2013 and 2020.

1.2. Statement of the Problem

Environmental Impact Assessment (EIA) serves as a critical tool for ensuring sustainable development by identifying, predicting, and mitigating potential environmental impacts of development projects. In Ethiopia, the legislative and administrative framework governing EIA is designed to facilitate this process. However, questions remain regarding its adequacy and effectiveness, particularly in urban contexts like Addis Ababa, where rapid urbanization and large-scale housing projects, such as condominium developments, pose significant environmental challenges.

Despite the presence of EIA legislation, its practical implementation has often been criticized for gaps in compliance, enforcement, and oversight. The specific procedures for EIA in Ethiopia, including scoping, review, approval, and follow-up, are sometimes seen as inadequate in addressing the complex environmental risks associated with high-density housing projects. This raises concerns about the environmental sustainability of these projects and the long-term well-being of urban communities. Additionally, effective implementation of Environmental Management Plans (EMPs) a vital component of EIA requires skilled expertise and a strong institutional commitment. However, there is limited understanding of the perceptions and experiences of professionals involved in this process, which could reveal critical barriers to successful EMP execution.

This research aims to address these gaps by focusing on assessing the adequacy of the legislative and administrative framework of EIA for its effective implementation, and examining expert perceptions on the implementation of Environmental Management Plans. By addressing these issues, the study seeks to contribute to strengthening the EIA process and promoting sustainable urban development in Ethiopia.

1.3. Significance of the Study

This study addresses crucial aspects of Environmental Impact Assessment (EIA) implementation in Ethiopia, focusing on legislative, procedural, and perceptual dimensions.

The significance is outlined as follows: - 1. Contribution to Policy and Legislative Framework Improvements:- By assessing the adequacy of the legislative and administrative framework, the study identifies gaps, strengths, and areas requiring refinement. This can guide policymakers in revising existing laws and regulations to enhance the efficiency and effectiveness of EIA processes. Strengthening the legislative framework will ensure environmental sustainability.

2. Enhancing EIA Implementation Efficiency: Evaluating the Ethiopian EIA procedure and its implementation in selected condominium projects provides practical insights into its real-world application. The findings will help uncover bottlenecks, inefficiencies, and challenges, offering recommendations to streamline procedures and ensure better integration of environmental considerations in urban development projects.

3. Improved Environmental Management Practices: The study's focus on experts' perceptions of the implementation of Environmental Management Plans (EMPs) offers critical insights into on-ground challenges and best practices. This can promote better execution of EMPs, ensuring that mitigation measures proposed during the EIA process are effectively implemented.

4. Support for Sustainable Development: The findings can directly contribute to achieving sustainable development goals (SDGs) by ensuring that large-scale urban projects, such as condominiums, minimize their environmental footprint while promoting social and economic benefits. 5. Capacity Building and Institutional Strengthening: Insights from this study can inform capacity-building initiatives for EIA practitioners, enhancing their skills and knowledge. Moreover, the research findings can aid institutions responsible for EIA oversight by identifying resource and capability gaps.

1.4. Scope of the Study

The scope of this study encompasses an evaluation of the adequacy of Ethiopia's legislative and administrative framework for Environmental Impact Assessment (EIA), focusing on its effectiveness in guiding environmental governance. It further examines the efficiency of the Ethiopian EIA procedure by analyzing its practical implementation in selected condominium projects, highlighting procedural strengths, challenges, and compliance issues. Additionally, the study explores experts' perceptions of the implementation of Environmental Management Plans (EMPs), emphasizing the translation of proposed mitigation measures into actionable outcomes. Geographically, the study focuses on Addis Ababa, Ethiopia, with a particular emphasis on urban condominium projects, providing insights into both legislative and procedural aspects of EIA and their real-world applications.

1.5. Objectives

1.5.1. General Objectives

The general objective of this study was to assess adequacy of legislative, procedural and administrative framework of EIA their implementation on environmental impact for condominium projects constructed in Yeka Abado, and Kazanchis Sites.

1.5.2. Specific Objectives

- Assess the adequacy of the legislative and administrative framework of EIA for its effective implementation.
- Assess the efficiency of Ethiopian EIA procedure and its implementation status in the selected condominium projects.
- Assess expertise perception on implementation of environmental management plan.

Chapter 2:-Literature Review

2.1. Theoretical Literature Review

The Critical Review of the efficiency of the Environmental Impact Assessment (EIA) process as a tool intended to protect the Environment from Construction Development's Hazards could be assured through adequacy of Legislative and Administrative Framework for EIA, Efficiency of EIA Procedure and Its Implementation, and Expertise Perception on Implementation of Environmental Management Plans (EMPs)

2.1.1. Adequacy of Legislative and Administrative Framework for EIA

A sound legislative and administrative framework is fundamental for effective Environmental Impact Assessment (EIA) implementation. According to Glasson et al. (2012), an adequate EIA framework should encompass clear legal mandates, transparent processes, and robust institutional arrangements to ensure environmental sustainability. These frameworks are designed to integrate environmental considerations into decision-making and mitigate adverse impacts. However, challenges often arise due to ambiguities in legislation, insufficient institutional capacity, and weak enforcement mechanisms (Sadler, 1996). For effective implementation, administrative structures must be well-resourced and capable of overseeing compliance while facilitating public participation and inter-agency coordination (Morrison-Saunders & Retief, 2012). This study aligns with these principles to assess the sufficiency of Ethiopia's legislative and administrative framework in achieving its intended environmental objectives.

2.1.2. Efficiency of EIA Procedure and Its Implementation

Efficiency in EIA procedures is crucial for balancing environmental protection with development needs. Theoretical frameworks, such as Wood’s Model (2014), highlight key EIA procedural steps: screening, scoping, impact assessment, review, decision-making, and monitoring. Efficiency is measured by the timeliness, accuracy, and integration of these steps into project cycles. Studies by Jay et al. (2007) emphasize that procedural inefficiencies, such as delays, inadequate scoping, and insufficient stakeholder involvement, undermine EIA outcomes. In developing countries, including Ethiopia, these issues are exacerbated by resource constraints and limited technical expertise. This study uses these theoretical underpinnings to evaluate the procedural efficiency of Ethiopian EIA within the context of condominium projects.

2.1.3. Expertise Perception on Implementation of Environmental Management Plans (EMPs)

Environmental Management Plans (EMPs) are critical components of the EIA process, translating assessment findings into actionable mitigation measures. Petts (1999) notes that the success of EMPs depends on their clarity, feasibility, and the commitment of project proponents to

implementation. Theoretical perspectives stress the importance of monitoring and adaptive management in ensuring EMP effectiveness (Arts et al., 2001). Furthermore, the perception of EIA practitioners and stakeholders plays a significant role in identifying practical challenges, such as resource limitations, insufficient training, and a lack of accountability. This study incorporates these theoretical insights to explore expert perspectives on EMP implementation in Ethiopian condominium projects.

2.2. The General Overview of EIA

Over the past 40 years, ESIA has been evolved, both in terms of theory and practice (Morgan, 2012). In 1970, the US National Environmental Policy Act (NEPA) introduced the first formal requirements and procedure for EIA. Since then, governments in more than 100 countries have adopted provisions for the implementation of EIA (ElFadl, 2004). In the early stages of ESIAE, only biophysical impacts such as: air and water quality, flora and fauna, noise, climate and water were considered (ECA, 2005). In addition, other aspects such as; social, health and economic aspects were also considered. Although understanding of procedures and methodologies, as well as effectiveness criteria has greatly improved since the early days of ESIA, there is still scope to improve the instrument further. In particular, in current practice ESIA is still often used in a more reactive, rather than pro-active way (UNEP, 2006). The EIA system in Hong Kong is regarded as "the most transparent system" in the world. General and vague statements are stipulated in the EIA regulations of China, Thailand and Cambodia have led to many obstacles for public involvement (Dalal-Clayton *et al*., 2004). Egypt, Ghana, Mauritius and South Africa are relatively the most advanced EIA systems from the continent. Availability of information, level of EIA development and implementation made them advanced than the rest African countries (Benjamin & Godfred, 2013). Ethiopia as a member state of UN also accepted the international agreements and adopted environmental laws, policy and proclamation. In Ethiopia the Environmental Protection Authority (EPA) was established in 1995. And reestablished in 2002 by virtue of proclamation 295/2002. The policy established in 1997 articulates the requirement for integrating environment and development at policy, planning and management levels for improved decision-making. As Dominik *et.al (*2010) reported, there was huge gap between theory and practical implementation and application of the EIA process in Ethiopia. An effective EIA enables the Authority or regional environmental agency to weigh up the costs and benefits of the proposal, so as to whether or not the project is environmentally friendly, economically sustainable and socially acceptable (EPA, 2003).

2.2.1. Historical Development of EIA in Ethiopia

As the practice of contemplating environmental and health impacts was introduced as early as 1980 into water resources development projects assisted by UNDP/WHO, though the main focus

was limited to water-related and water-based health problems. This practice then evolved into a formal requirement in international donor assisted and financed projects in various sectors (Solomon Kebede, 2006). Similarly, the Green Revolution discourse to overcome food shortage after math of the major famine of 1984, FAO published the Ethiopian Highland Reclamation Study (EHRS) in 1986, directly links the famine to natural resource degradation. The 1981 Soil Conservation Research Project (SCRP) on soil erosion also conducted. EHRS a key argument was that Specific guidelines were developed only for the application of ESIA in pre-feasibility and feasibility studies of potential medium-scale irrigation projects (EPA, 2006). These studies were conducted which formed the basis for, and highly influenced, the debate on environmental related issues in Ethiopia (Dominik, 2010).

Even though these efforts were limited to the irrigation sector and narrow in scope and despite that they were donor-driven, they have nonetheless contributed to the emergence of the system of ESIA that exists in the country at present (EPA, 2006). Formally Ethiopia has promulgated the important proclamations including; Establishment of Environmental protection Organs (Proc. No. 295/2002), Environmental Impact Assessment (Proc. No. 299/2002) and Environmental Pollution Prevention and Control (Proc. No. 300/2002). These proclamations have stipulated the need for ESIA and institutional issues compounding ESIA administration in Ethiopia (EPA, 2006). The powers and duties of EPA is to "prepare directives and systems necessary for evaluating the impact of social and economic development projects on the environment; follow up and supervise their implementation" (Dominik *et al*., 2010).

2.3. Empirical Literature Review

2.3.1. EIA procedural framework

The Environmental Impact Assessment (EIA) procedural framework is a structured process designed to ensure that environmental considerations are integrated into decision-making for development projects. Key stages of the framework include screening, scoping, impact analysis, mitigation planning, public participation, decision-making, and monitoring (Wood, 2014). Effective EIA procedures require clarity, efficiency, and adaptability to address project-specific and environmental complexities (Glasson et al., 2012). However, inefficiencies such as unclear guidelines, inadequate stakeholder involvement, and weak monitoring mechanisms often undermine the process, particularly in developing countries (Jay et al., 2007). Moreover, a lack of coordination between regulatory authorities and developers further limits procedural efficiency. These challenges underscore the need for comprehensive guidelines, capacity building, and stakeholder engagement

to strengthen the procedural framework and enhance its effectiveness in achieving sustainable development outcomes.

2.3.2. The Project Application for EIA and its System Coverage Extent

The EIA proclamation 299/2002 stipulated that every project which falls under the category of lists that require EIA shall be subject to the environmental impact assessment. Based on this provision, projects that require EIA are described. However, some governmental projects and most of the development proposals owned by private sectors don't properly pass through the EIA process even in the existence of this directive (Dominik *et al*., 2010).

2.3.2.1. Screening

Screenings decide if and at what level EIA should be applied. It is the practice by which the project can be divided into different categories, depending on the nature of its impact (El-Fadel, 2004). Articles 92 of the 1995 Constitution established a requirement for the production of an environment impact statement in Ethiopia before a development project is given an investment license. The general parameters applied now relate to size (scale), nature/type (hazardous/toxic) and location (sensitivity/fragility of ecosystems) of particular project. Activities that may be treated for EIA process are listed in three schedules depending on the likely impacts on environment. Schedule 1 are projects which may have adverse and significant environmental impacts, and therefore require full EIA; Schedule 2 are those projects whose type, scale or other relevant characteristics have potential to cause some significant environmental impacts but not likely to warrant an environmental impact study; and Schedule 3 are projects which would have no impact and does not require environmental impact assessment. All projects must be submitted to a screening exercise. However, especial concern should be taken during screening process since all projects in environmentally sensitive areas are regarded to cause significant impact and require undergoing a full EIA process irrespective of their nature.

2.3.2.2. Scoping of Impacts

The scoping stage of EIA effectiveness is one of the aspects of the system that require increased attention of all the parties to the EIA process. On the one hand, stakeholders tend to consider the scoping requirements of the relevant legislation as to a large extent effective in terms of achieving the goals of EIA. On the other hand, practical application of the scoping provisions of the Ethiopia EIA system, in the view of the very same stakeholders, suggests that either there is a lack of enforcement of these provisions or the provisions for scoping are indeed underdeveloped. It is carried out to ensure that all significant impacts and reasonable alternatives are addressed in the intended EIA (Assessment of Effectiveness of Environmental Impact Assessment (EIA) System in Azerbaijan). It aims at identification of boundaries of EIA studies, important issues of concerns,

significant effects and factors to be considered. It requires information and expert judgment on impact-related issues and the evaluation of critical issues for various stakeholders, apart from the decision-makers.

2.3.2.3. Environmental impact study Report

Environmental Impact Study report is a core technical part of the EIA process and structured as follows; as required under article 4 (1) of the EIA proclamation no.299/2002 and as presented on EIA guideline for considerations to determine impact:

Identification of more specific impacts to be investigated in detail on the basis of the size, location, nature, cumulative effect with other concurrent impacts or phenomena, trans regional effect, duration, reversibility or irreversibility or other related effects of the project; Prediction and determination of the characteristics of the main impacts of a project having both beneficial and detrimental effects; Evaluation of the significance of the residual impacts that likely to entail a negative significant impact and that cannot be mitigated; Design of mitigation measures and consideration of all feasible alternatives; preparation of management plan taking into account the mitigation, monitoring activities; and Preparation of contingency plan.

Review stage is the most important quality control feature of EIA, as it helps to ensure that information on the environmental impacts of an action is adequate before it is used as a basis for decision making. Therefore, it is particularly important that this stage is carried out as effectively and efficiently as possible. Various methods to ensure objectivity of the review can be used. The EIA proclamation specifies that the responsible bodies for reviewing process are federal and regional Environmental Protection Authorities and the process need to be carried out by taking into account any public comments and expert opinions.

The Procedural Guideline also states that reviewing is expected to be conducted at various stages in the EIA processes, which include screening report, scoping report and terms of reference, environmental impact assessment report, and performance (monitoring or audit) reports at different stages in the project cycle. Practically the reviewing activity in the country is desk review neglecting the views and concern of public and other interested groups. It is focused on environmental impact study report and other reviewing activities stated in the procedural guideline have not been properly implemented. The other challenges facing the reviewing process include absence of range of multidisciplinary technical expertise needed to assess the adequacy and comprehensiveness of an EIA report and institutionalized review practices. This has resulted in inadequate reviewing of draft EIS that renders its ineffectiveness as a tool for sound decision-making. EPA has delegated its power of reviewing EIA reports to identified sectorial licensing

agencies that have vested interest on the development proposals. By its nature EIA is cross sectorial and not reviewed by sectorial environmental units.

2.3.2.4. Decision Making

As required in the EIA proclamation No. 299/2002, the competent authority shall, after evaluating an EIA report by taking into account all the required information, within 15 working days: Approve the project without conditions and issue authorization if it is convinced that then
project will not cause negative impacts; Approve the project and issue authorization with conditions that must be fulfilled in order to eliminate or reduce adverse impacts or reduce adverse impacts to insignificance if it is convinced that the negative impacts can be effectively countered, or Refuse implementation of the project if it is convinced that the negative impact cannot be satisfactorily avoided. It is the responsibility of EFCC in collaboration of relevant stakeholders to give decision on the development proposals with respect to environmental matters. In the actual sense, EIA reports are prepared but have little or no effect on the decision-making process. Most of the decisions are based on political basis. In some cases, EIA begins after the construction commences and is used only to confirm that the environmental consequences of the project are acceptable.

2.3.2.5. Monitoring of EIA System

Monitoring is the collection of activity and environmental data and comparison with standards, predictions or expectations. Baseline monitoring refers to measuring the initial state of the environment before activity implementation and provides the basis for prediction and evaluation in the EIS. In the post-decision stages, monitoring may relate to both compliance and impact of the decision.

The Ethiopia EIA proclamation Article 12 (1) describes; The Authority or the relevant regional environmental agency shall monitor the implementation of an authorized project in order to evaluate compliance with all commitments made by and obligations imposed on the proponent during authorization. When the proponent fails to implement the authorized project in compliance with the commitments he entered into or obligations imposed upon him, the Authority or the relevant regional environmental agency may order him to undertake specified rectification measure. Any other authorizing or licensing agency shall, intended with the Authority's or the relevant regional environmental agency's decision to suspend or cancel any authorization to implement a project, suspend or cancel the license it may have issued in favor of
the project.

2.4. Conceptual Literature Review

Environmental Impact Assessment (EIA) is a fundamental tool for ensuring sustainable development by evaluating the environmental implications of proposed projects before their implementation. In Ethiopia, the Environmental Policy of 1997 and Proclamation No. 299/2002 on Environmental Impact Assessment outline the legislative framework for EIA. These frameworks aim to integrate environmental considerations into development planning and decision-making processes.

2.4.1. The Concept of EIA

EIA is a process designed to predict and mitigate the environmental impacts of proposed projects or activities. It involves screening, scoping, impact analysis, mitigation planning, public consultation, and decision-making (Glasson et al., 2013). Globally, the purpose of EIA is to minimize adverse impacts on the environment and human health while maximizing benefits (Jay et al., 2007).

2.4.2. Ethiopia's EIA Framework

Ethiopia's EIA framework is anchored in the Environmental Protection Authority's (EPA) guidelines, which were designed to align with international standards. Proclamation No. 299/2002 requires developers to prepare and submit an EIA report for approval. The guidelines emphasize public participation, consideration of alternatives, and monitoring of environmental management plans (UNEP, 2008).

Despite these provisions, several studies highlight gaps in implementation, including inadequate institutional capacity, limited public awareness, and insufficient follow-up and enforcement mechanisms (Tadesse, 2019). Specifically, EIA reports often lack depth, and mitigation measures are not consistently implemented.

2.4.3. Challenges in EIA Implementation

Institutional Weaknesses: Ethiopia's institutional framework for EIA implementation faces challenges due to resource constraints, insufficient technical expertise, and lack of coordination among stakeholders (Alemayehu et al., 2021).

Public Participation: While public consultation is mandated, it is often inadequately conducted. The lack of inclusive engagement reduces the efficacy of the EIA process in addressing community concerns (Getu, 2009).

Monitoring and Enforcement: Weak enforcement of EIA requirements undermines compliance. This issue is exacerbated by a lack of clear accountability mechanisms and financial constraints (Wondie et al., 2020).

2.4.4. Improving EIA Implementation

To address challenges related to EIA implementation, it is essential to: strengthen institutional capacities through training and resource allocation; ensure genuine public participation by improving awareness and providing platforms for inclusive dialogue; establish robust monitoring and evaluation frameworks that enforce compliance and assess effectiveness.

In general, the Ethiopian EIA procedure, while theoretically adequate, faces significant implementation gaps. By addressing institutional, technical, and participatory challenges, the framework can better support sustainable urban development, particularly in critical projects like condominiums.

2.4.5. Ethiopia's Legislative Framework for ESIA

2.4.5.1. ESIA Proclamation

Proclamation No.299/2002 enacted in 2002 and strengthens the position of the EPA by stating 'without authorization from the Authority or from the relevant regional environmental agency, no person shall commence implementation of any project that requires environmental impact assessment (Dominik *et al*., 2010). It also empowered the EPA to prepare procedure, regulations, guidelines and standards to effectively implement and enforce ESIA proclamation.

Environmental guidelines are among the tools for facilitating the inclusion of environmental issues and principles of sustainable development into development proposals (ECA, 2005). To guide mainstreaming of the principles of sustainability into sectoral projects, sectoral environmental impact assessment guidelines such as gridlines on agriculture, transport, industry, tannery and settlements have been prepared. But these all have not properly implemented and benefited the issue. In addition to this, a general guideline for facilitating ESIA in all sectors has been prepared. The fundamental purpose of this guideline is to ensure that proponent, the government and all other interested and affected parties have the opportunity to participate meaningfully in the ESIA process. Since the guideline explicitly states the responsibilities of each party, it helps to eliminate problems that may arise from lack of understanding of the process, from acting beyond ones mandates and responsibilities as well as from negligence.

2.4.5.2. EIA Guidelines

The Ethiopia's Environmental Protection authority developed a guideline series document for review of EIA study report (2003). It is believed that the EPA and sectorial environmental units used this guideline to make decisions in good time and faith, whether and under what conditions the project shall proceed. As the duties and powers offered to EPA it has issued different EIA guidelines that can help to implement the ESIA Proclamation and policy objectives entailed in the environmental policy. Among these are the technical and procedural EIA guidelines, which were

issued in 2009 and 2003 respectively. They are intended to guide developers, competent agencies and other stakeholders in carrying out ESIAs.

The procedural guideline details the required procedures for conducting an ESIA, the permit requirements, the stages and procedures involved in ESIA process and the roles and responsibilities of partners involved in the ESIA process (ECA, 2005). It also included the categories of projects (schedule of activities) concerning the requirement of ESIA and list of project types under each category. The procedural guideline series aim at in particular towards: ensuring the implementation of the environmental policy and compliance of ESIA related legal and technical requirements and providing a consistent and good practice approach to ESIA administration in Ethiopia.

The document also contains legal and policy elements, core values, guiding principles and basic requirements for undertaking Environmental & Social Impact Assessment (Dalal-Clayton *et al*., 2004). The sectoral guideline which is pertinent to this particular study is Environmental and Social Impact Assessment Guideline for Industrial sectors, Road Construction and Dam & Reservoir (2004). This guideline highlights major issues and potential impacts that should be taken into account during the preparation and assessment phases. It also details the appropriate enhancement and mitigation measures, specific characteristics of the projects and indicators for environmental and social monitoring (Dominik *et al*., 2010). The other valuable document is the guideline for reviewing ESIA Reports (2003). This is a generic guideline prepared to facilitate the ESIA reports reviewing and decision-making process and it includes review approaches and outlines a minimum report structure and information requirements. It is intended to help the reviewers to assess the content, comprehensiveness, adequacy and accuracy of information in the report, as well as its organizational and presentational qualities (Dalal-Clayton *et al*., 2004). The review guideline is principally meant to be used by EPA and regional environmental agencies but also by sectorial environmental units and the proponents.

Chapter 3:-Materials and Methods

3.1 Study Area Description

Addis Ababa, the capital city of Ethiopia, is a vibrant urban center and the country's political, economic, and cultural hub. Its strategic location and unique socio-economic characteristics make it an important focus for development and research. The city is situated in the central highlands of Ethiopia, Addis Ababa lies at an altitude of 2,355 meters above sea level, making it one of the highest capitals in the world. It is geographically positioned at 9°01′48″N latitude and 38°44′24″E longitude (CSA, 2021). The city is divided into 11 sub-cities, each playing a distinct role in urban management and development.

The city enjoys a subtropical highland climate, characterized by moderate temperatures throughout the year. The average annual temperature is approximately 16°C, with daytime highs averaging 20–25°C and nighttime lows around 5–10°C. Rainfall is seasonal, with the majority occurring during the main rainy season (June to September) and a smaller rainy period in March and April (NMA, 2020). Addis Ababa is Ethiopia's most populous urban area, with an estimated population of 5.4 million as of 2022, reflecting a high annual growth rate due to rural-to-urban migration (CSA, 2021). The city's population is diverse, comprising various ethnic and religious groups, and it serves as a melting pot for the country's rich cultural heritage.

As Ethiopia’s economic engine, Addis Ababa contributes significantly to the national GDP. It hosts major industries, financial institutions, and service sectors, providing employment opportunities for a significant proportion of the urban population. However, despite its economic importance, the city faces challenges, including housing shortages, unemployment, and informal settlements (World Bank, 2021). Efforts are underway to address these issues through urban development programs such as condominium housing projects and infrastructural expansions.

Yeka Abado is the woreda of Yeka Sub City that the area is concentrated with 20/80 (this means the government arrange 80 percent long term loan agreement with National Bank of Ethiopian and 20 percent to be paid prior) and 10/90 (this means the government arrange 80 percent long term loan agreement with National Bank of Ethiopian and 20 percent to be paid prior) condominium housing projects that is known by nick name G7 and G13. Prior to the condominium construction in 2012, this area was predominantly agricultural land and Oromo farmers housing. Now there are 645 blocks and 18,000 houses. The Yeka Abado area population is estimated above 18000 households, without including the informal settlements of that area (Nanati Gezmu, 2020).

The Kasanchis area, is the surroundings were allocated to Ras Mulugeta, one of the war lords in power during the reign of Emperor Menilik II. The site comprises of 20 of the 45 registered heritage located at Kirkos Sub city. The area covers the part of Woreda 8 which has an area of 163.86 ha, and a population of 21,484 people (Addis Ababa City Administration, 2014).

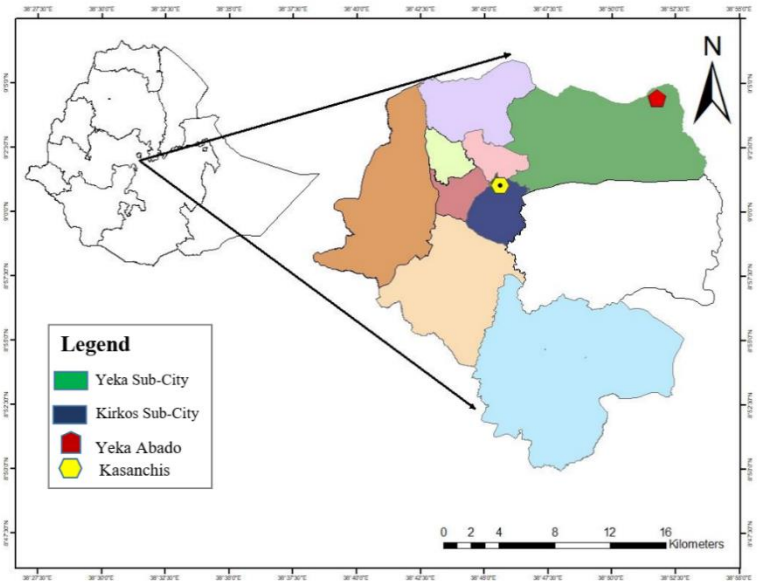

Figure 1: Map of the study area

3.2 Research Methods

3.2.1 Research Design

This study adopts a mixed-method research design to assess the adequacy of Ethiopian EIA procedures and their implementation, with a focus on condominium projects in Yeka Abado, and Kazanchis. The research involves a qualitative approach to analyze policy documents, legislative frameworks, and EIA reports, alongside in-depth interviews with key stakeholders, including government officials, project developers, and affected community members. A quantitative component involves structured surveys to gather data on community perceptions and the social and environmental impacts of these projects. Triangulation of qualitative and quantitative findings ensures a comprehensive understanding of gaps and strengths in the EIA process, with an emphasis on identifying barriers to effective implementation and proposing actionable recommendations for improvement. The evaluation framework was constituted EIA legislation, EIA administration, EIA procedure and EIA implementation and monitoring.

This study was conducted by combining different methods; document review, field observation, exploring the project impact areas, assessing the opinion of specialists and administrative officials, peoples affected by the project, and all other stakeholders through questionnaire, interview and focus group discussion.

3.2.2 Data collection methods and tools

3.2.2.1 Questionnaires

To each stakeholder's category i.e. regulatory body, project proponents, EIA practitioners (consulting firms working on EIA), NGOs, and academic institutions 20 questionnaires were distributed. The questionnaire was focused on the legislative aspects and administrative framework of EIA, EIA procedure, and implementation of the environmental management plan. Separately structured questionnaires were developed for each above-mentioned focus area. In order to comprise the whole EIA stakeholders, from all stakeholders' category, 20 respondents were selected following purposive sampling technique by considering their expertise, and their involvement in the project with regard to environmental issues.

3.2.2.2 Interview

Interview questions were developed to obtain the opinion of key informants from the community living in the project sites about the environmental and social impacts of the project and the mitigation measures taken.

3.2.2.3 Focus Group Discussion

From each project sites a group of ten (10) community representatives who are affected by the project were represented in a focus group discussion (FGD). The representatives participating in

FGD was selected by considering their awareness of the project and also constituted religious leaders, elders, and youth. In FGD; their level of participation in the EIA process, accessibility of information about the implementation of the project, and the actual environmental as well as social impact they faced was checked.

3.2.2.4 Document Analysis

Environmental impact statement (EIS), Environmental Management Plan (EMP), and contract documents of the three condominium projects were planned to access from Addis Ababa Environmental Protection Authority (AAEPA) and other concerned authorities. The quality of the EIS of the projects were planned to examine based on the revision guideline developed by Lee and Colley (1992). However, due to the absence of EIA report for the selected condominium projects the revision of EIS was not executed.

3.2.2.5 Field Observation

Field observation was carried out by preparing checklists of environmental impacts, and their mitigation measures. Field observation was conducted to verify the implementation level of the designed mitigation measures and to check the availability of unpredicted environmental and social impacts of the projects.

3.2.3 Data Analysis

Linear regression model was employed to predict the impact of predictors (the effectiveness of EIA monitoring, action, and follow-up measures) on the adequacy of administrative framework and on the contribution of EIA to achieve sustainable development. Furthermore, descriptive statistical techniques were carried out to analyze qualitative information. SPSS software version 22 was used to compute the regression model and summarize the quantitative information gathered from questionnaire, interview, focal group discussion, and field observation in tables and charts.

3.2.4 Ethical consideration

In conducting research on the Adequacy of Ethiopian EIA Procedure and its Implementation: A Showcase of Condominium Projects, several ethical considerations are taken into account. Informed consents are obtained from all participants, including EIA practitioners, NGOs, higher institutions, project proponents ensuring their voluntary involvement and the confidentiality of their information. Data privacy is critical, as a result, all collected information handled securely and transparently. The study avoids causing harm to participants. Conflicts of interests are avoided to maintain objectivity and neutrality in the analysis. Finally, all AAU's ethical guidelines are respected considering also National and International ethical guidelines.

Chapter 4:- Results and Discussions

4.1 Demographic Characteristics of Respondents

In this section of the study, demographic information such as sex and educational level of respondents are described. As shown in Figure 2(a), 11% of respondents in the study are females, while the remaining 89% are males. As revealed in Figure 2(b), 24% of respondents are PhD holders, 47% are Master's graduates, and the remaining 29% have BA/BSc degrees.

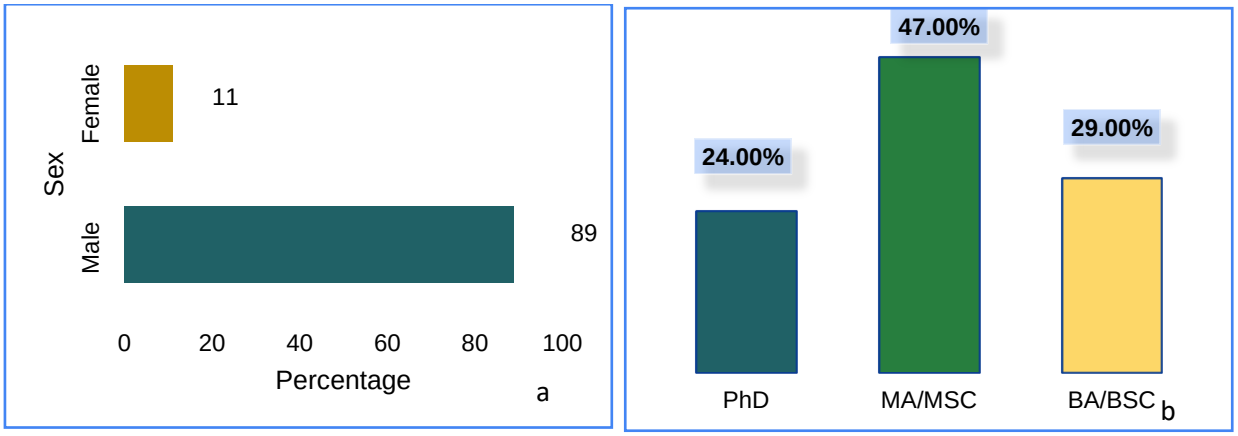

Figure 2: Sex (a) and educational level (b) of respondents

4.2 Adequacy of Ethiopian EIA Legislative Framework

The finding of the study revealed varying levels of familiarity among different stakeholders with existing legislation governing Environmental Impact Assessment (EIA). According to the result indicated in Figure 3, EIA practitioners exhibit the highest level of familiarity, with approximately 85% demonstrating a thorough understanding of the legal frameworks and regulations governing EIAs. This can be attributed to their specialized training and direct involvement in conducting assessments, which necessitates a comprehensive grasp of relevant laws (Molla *et al*., 2019). Regulatory bodies also demonstrate a relatively high familiarity, with around 75% displaying a solid understanding of EIA legislation. These bodies play a pivotal role in enforcing environmental regulations and ensuring project compliance, necessitating a robust understanding of legal requirements. Conversely, 90% of the higher institutions experts and 50% of experts in NGOs responded with moderate familiarity and somewhat familiar levels respectively demonstrating adequate knowledge of EIA legislation. While higher institutions provide education and research opportunities in environmental studies, there may be gaps in practical application and emphasis on legal aspects. Project proponents response display the lowest level of familiarity with 65% of slight familiarity which implies even if they recognize the importance of compliance, may lack the specialized expertise or resources to fully comprehend the intricacies of EIA legislation. This may stem from resource constraints or a focus on broader environmental issues rather than detailed legal nuances. These findings underscore the importance of targeted education and training initiatives to

enhance stakeholders' familiarity with EIA legislation, ultimately bolstering the effectiveness and integrity of the environmental assessment process (Gubena, 2016; Girma, 2010).

The study highlights significant variations in stakeholders' familiarity with EIA legislation, with practitioners and regulatory bodies demonstrating the highest understanding due to their direct involvement in the process. However, experts from higher institutions and NGOs show only moderate familiarity, likely reflecting gaps in practical application and emphasis on legal frameworks. Project proponents exhibit the least familiarity, suggesting resource and expertise limitations. These findings emphasize the need for targeted education and capacity-building efforts to enhance all stakeholders' understanding of EIA legislation, ensuring more effective and compliant environmental assessment practices (Gubena, 2016).

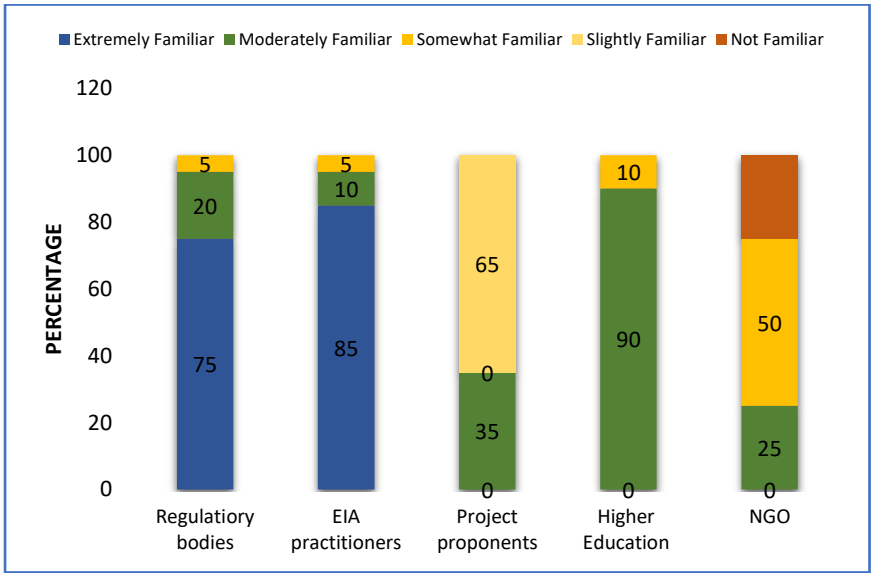

Figure 3: Familiarity of experts to Ethiopian EIA legislative framework

The survey findings revealed in Figure 4 indicated varied perceptions regarding the clarity and ease of understanding of the Ethiopian EIA legislative framework among different stakeholders. Regulatory bodies and EIA practitioners exhibit a relatively high level of agreement, with approximately 70% and 65% respectively indicating that the legislative framework is clear and easy to comprehend. This suggests that regulatory bodies, tasked with enforcing environmental regulations and EIA practitioners who have a direct involvement in conducting the assessment, possess a strong understanding of the legal requirements governing EIA, facilitating effective implementation. Conversely, project proponents, higher institutions, and NGOs demonstrate lower levels of agreement, ranging from 25% to 60%. This suggests that a significant portion of these stakeholders find the legislative framework challenging to navigate or understand. Higher institutions, while providing education and training in environmental studies, may face challenges in conveying the nuances of legal frameworks to students. Therefore, these findings underscore the

need for enhanced clarity and accessibility of EIA legislation through targeted education, training, and communication efforts, ensuring broader stakeholder understanding and engagement in the environmental assessment process (Yusuf, 2021).

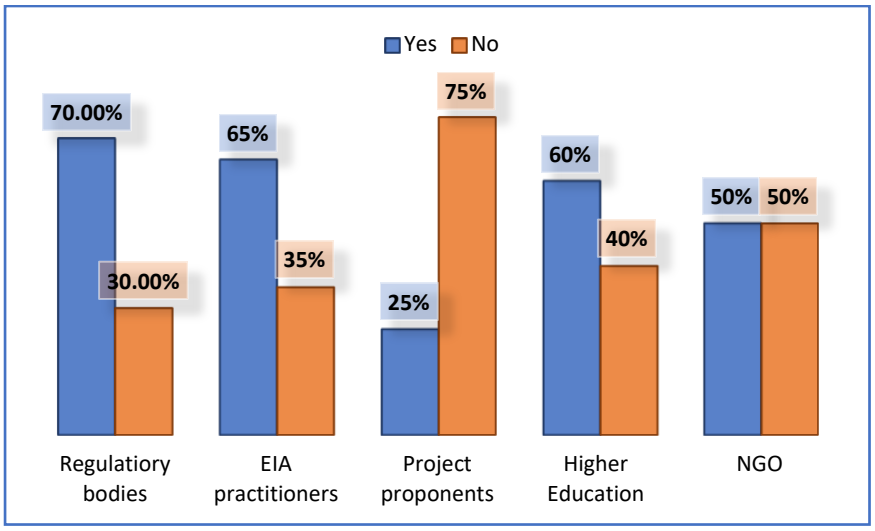

Figure 4: Clarity of Ethiopian EIA legislative framework

The study findings shed light on the perceptions of expertise of various stakeholders, including regulatory bodies, EIA practitioners, higher institutions, project proponents, and NGOs, regarding the effectiveness of EIA legislation in addressing potential environmental impacts of projects. As revealed in Figure 5, 40%, 35%, 30%, 35%, and 15% of respondents respectively from the regulatory bodies, EIA practitioners, project proponents, higher education, and NGOs perceived the adequacy of EIA legislation in addressing potential environmental impacts are very good. Conversely, 20% of the regulatory bodies and 25% of EIA practitioners, who are directly involved in conducting assessments, also demonstrated a lower level of satisfaction with the adequacy of EIA legislation in addressing potential environmental impacts.

This indicates a significant discrepancy in perceptions, potentially stemming from differing priorities or experiences in engaging with regulatory processes (Reffeis et al., 2010). Overall, these findings underscore the importance of stakeholder engagement and collaboration in evaluating and improving EIA legislation to ensure effective environmental protection measures.

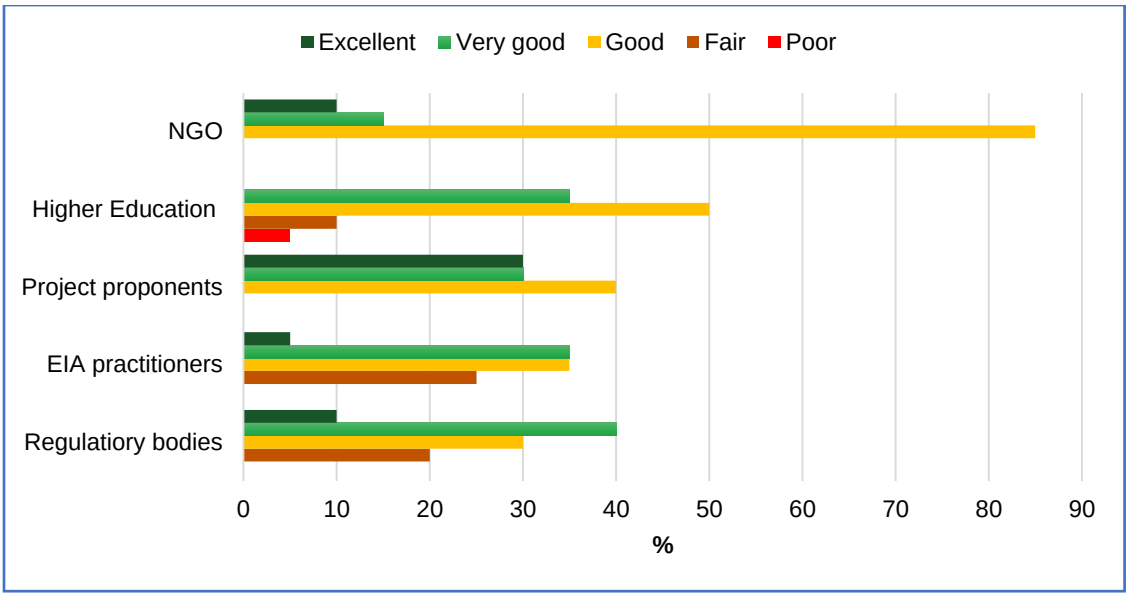

Figure 5: Evaluation of the adequacy of EIA legislation in addressing potential environmental impacts

The research findings shown in Figure 6, offer insights into the extent to which EIA legislative frameworks effectively consider the concerns and interests of local communities affected by projects. Responses varied across the spectrum, reflecting diverse perspectives on the adequacy of current legislative measures. only 1% of the total respondents rated the framework as poor in addressing community concerns, indicating significant deficiencies or oversights in incorporating local interests into the assessment process. This suggests that an insignificant portion of respondents perceive shortcomings in the mechanisms for community engagement and participation within existing legal frameworks. Conversely, 12% of respondents rated the legislative framework as fair, suggesting some efforts to consider community concerns but with room for improvement (Worku, 2017). This may indicate that while there are provisions for community involvement, they may not be sufficiently robust or inclusive to address all relevant issues effectively. Moreover, 41% of respondents rated the framework as good, indicating a solid level of effectiveness in considering community concerns. This suggests that stakeholders perceive the legislative frameworks as generally responsive to local interests, with mechanisms in place to facilitate meaningful engagement and address community needs. Furthermore, 39% of respondents rated the framework as very good, reflecting a high degree of satisfaction with its ability to incorporate community concerns comprehensively. This suggests that stakeholders view the legal frameworks as proactive in soliciting community input and integrating it into decision-making processes. Finally, approximately 7% of respondents rated the legislative framework as excellent, indicating an exceptional level of effectiveness in considering community concerns. This suggests that stakeholders perceive the legal frameworks as exemplary in their approach to community engagement, setting a high standard for inclusivity and responsiveness. Overall, considering the

majority's response these findings underscore the importance of ongoing efforts to strengthen community participation mechanisms within EIA legislative frameworks to ensure that local voices are heard and considered in the decision-making process.

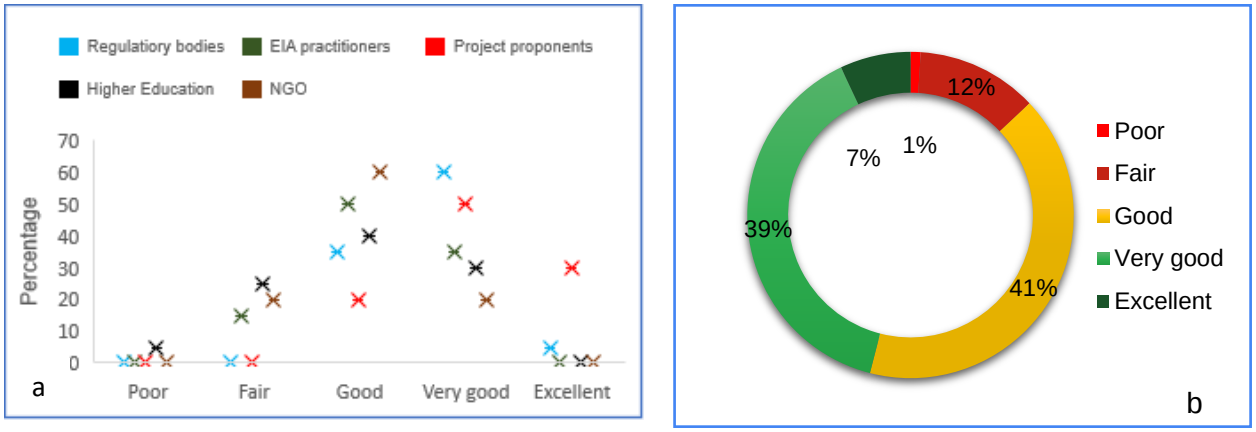

Figure 6: Evaluation of the adequacy of EIA legislation in addressing interests of local communities affected by projects: sector-based categorized response (a) and general response (b)

Figure 7, shows the respondent response regarding the adequacy of criteria determining the environmental significance within the EIA legislation. Results indicate a mixed response among stakeholders, 56% of respondents responded affirmatively to the adequacy of these criteria, while 44% responded negatively. These findings suggest a nuanced perspective on the effectiveness of the criteria outlined in the EIA legislation. Those who responded positively likely perceive the criteria as comprehensive and sufficiently robust in identifying and evaluating environmental impacts associated with proposed projects. This group of stakeholders may view the criteria as providing clear guidance for assessing environmental significance, thereby facilitating informed decision-making and effective mitigation measures. Conversely, stakeholders who responded negatively may perceive deficiencies or limitations in the existing criteria. They may argue that the criteria fail to capture certain environmental aspects adequately or overlook specific impacts that are of concern to local communities or ecological systems. Additionally, some stakeholders may critique the criteria for lacking flexibility or adaptability to address emerging environmental challenges or unique project contexts effectively. These findings underscore the importance of ongoing evaluation and refinement of criteria within EIA legislation to ensure their relevance, comprehensiveness, and effectiveness in identifying and addressing environmental significance in project assessments. Collaborative efforts between policymakers, experts, and stakeholders are crucial to enhancing the quality and applicability of these criteria, ultimately strengthening the integrity of the EIA process and promoting sustainable development outcomes.

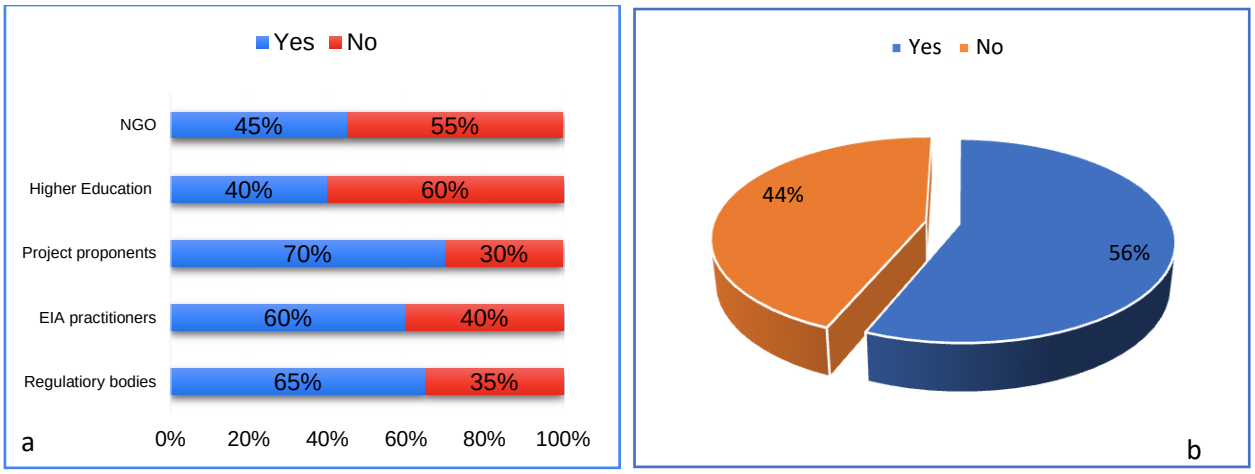

Figure 7: The adequacy of criteria determining the environmental significance in the legislation: sector-based categorized response (a) and general response (b)

Analysis of public perceptions shown in Figure 8, reveals a spectrum of responses regarding the transparency and accessibility of the process of obtaining environmental permits and approvals under legislative framework. A survey conducted among stakeholders indicated that while a significant portion of regulatory bodies, NGOs, and EIA practitioners perceived the process to be moderately transparent and accessible, a notable proportion (consecutively 5%, 10%, 10%, 15%, and 25% of regulatory body, EIA practitioners, NGO, Higher education and Project proponents) expressed concerns about inadequate transparency and accessibility. In general, 4% of respondents rated the process as "very transparent and accessible," while 47%, considered it "moderately transparent and accessible." However, 36% found it "slightly transparent and accessible," and 13% indicated it was "not at all transparent and accessible." These findings underscore the need for continuous efforts to enhance transparency, ensure public participation, and improve the adequacy of environmental assessments within the permit approval framework (Gezahegn, 2021).

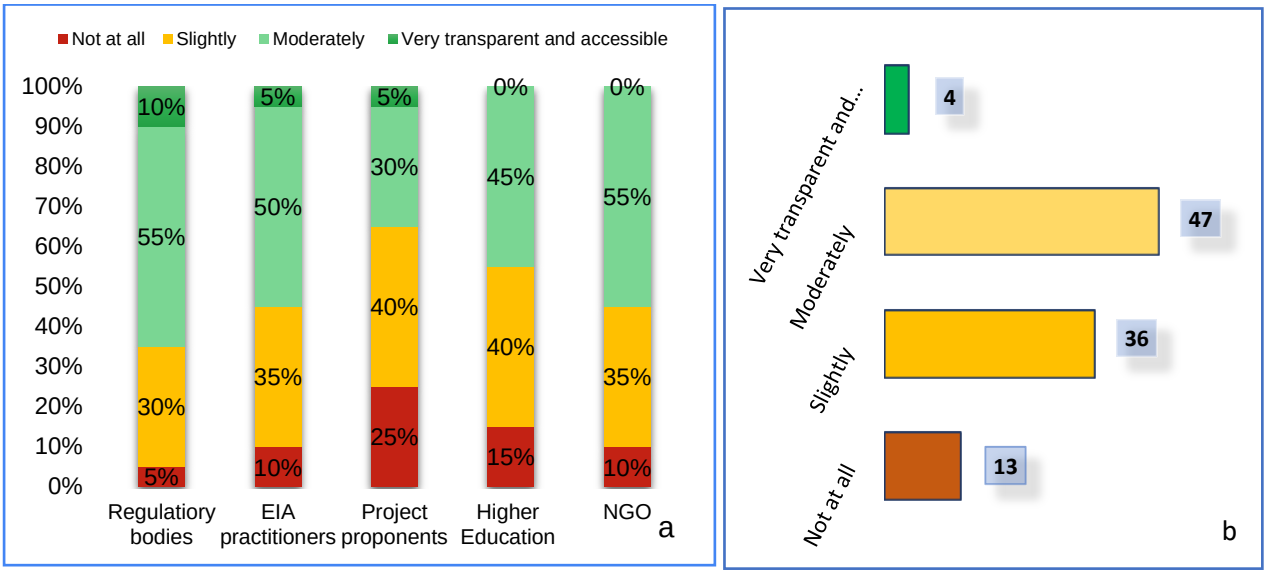

Figure 8: The transparency and adequacy of the process of obtaining environmental permits & approvals under legislative framework: sector-based categorized response(a) & general response (b)

A comprehensive survey conducted among regulatory bodies, EIA practitioners, project proponents, higher education institutions, and non-governmental organizations (NGOs) shed light on the perception of these stakeholders on the efficacy of the legislative framework in fostering public participation. As revealed in Figure 9 Among respondents, 6% perceived the encouragement of public participation as "minimal," while 33% considered it "moderate." Conversely, 33%, 50%, and 11% of stakeholders viewed the legislation as fostering "moderate, significant, and very significant" public participation respectively this also in agreement with the scholarly article providing an insight of public participation as procedural requirement of EIA (Gezahegn, 2021; Melaku, 2021). These findings underscore the ongoing Ethiopian legislation adequately promotes and supports meaningful public participation in the EIA process.

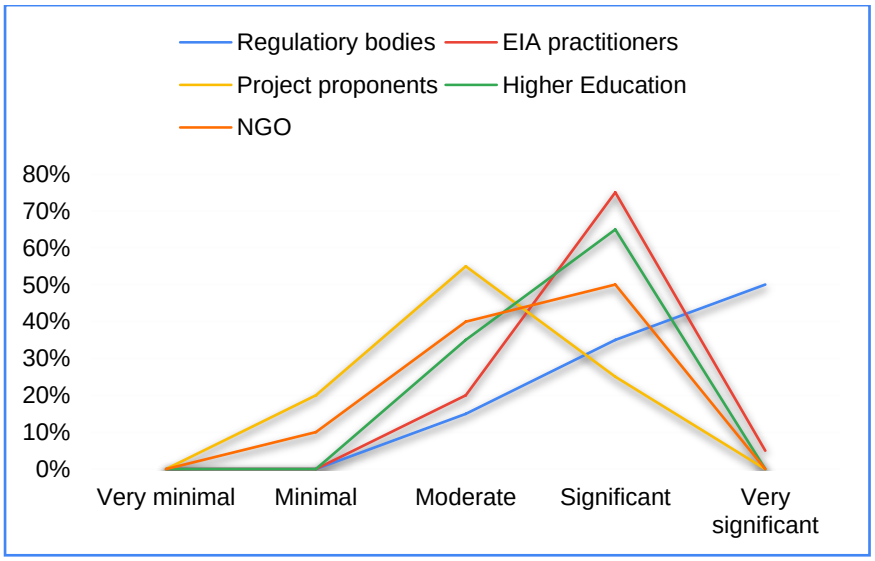

Figure 9: The extent of Ethiopian legislation encourages public participation and engagement in the EIA process

In this study, the perceptions of regulatory bodies, EIA practitioners, project proponents, higher education institutions, and non-governmental organizations (NGOs) about the adequacy of the Ethiopian EIA legislative framework in assessing, mitigating, and monitoring cumulative environmental impacts were assessed. A comprehensive survey conducted among these stakeholders provided insights into their assessment of the legislative framework's effectiveness in addressing cumulative environmental impacts. As revealed in Figure 10, 68% of respondents expressing confidence in the framework's adequacy, answering "Yes," while 32% expressed reservations, answering "No." These findings suggest that while majority of stakeholders believe that the current legislative framework sufficiently addresses cumulative environmental impacts through robust assessment, mitigation, and monitoring measures, others remain skeptical about its effectiveness. This indicates a need for further evaluation and potential enhancements to the

legislative framework to ensure that it adequately addresses cumulative impacts, considering the complex and interconnected nature of environmental challenges in Ethiopia (Ruffeis et al., 2010).

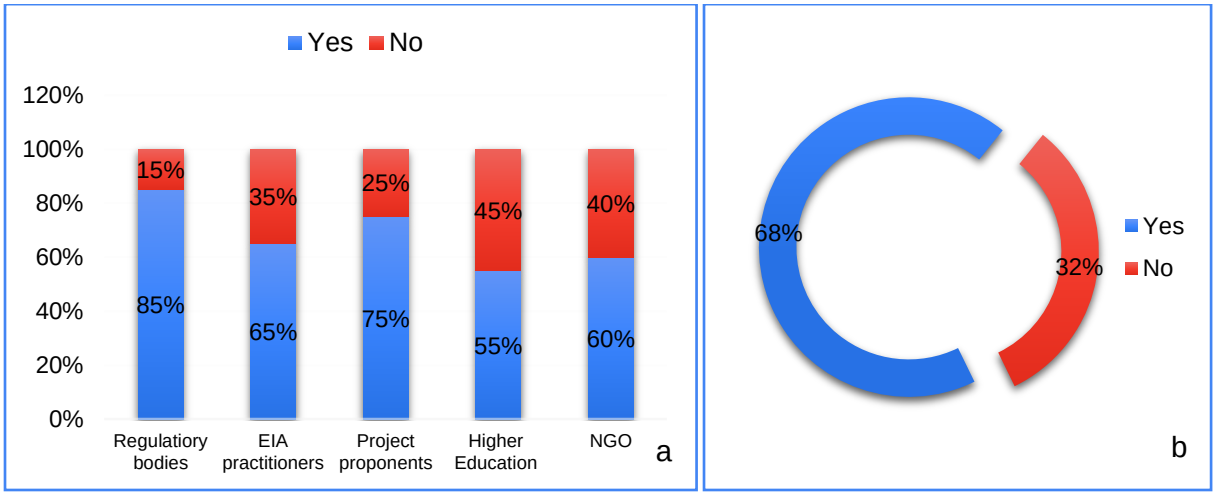

Figure 10: Adequacy of the Ethiopian EIA legislative framework in assessment, mitigation, and monitoring of cumulative environmental impacts: sector-based categorized response(a) & general response (b)

Through a comprehensive survey, stakeholders provided insights into their satisfaction level on the overall effectiveness of EIA legislative framework. As revealed in Figure 11, 62% expressing being "Satisfied" and 19% "dissatisfied" with the effectiveness of the legislative framework. Additionally, 5% of respondents indicated they were "unsure" about their satisfaction level, suggesting a lack of clarity or confidence in the framework's efficacy.

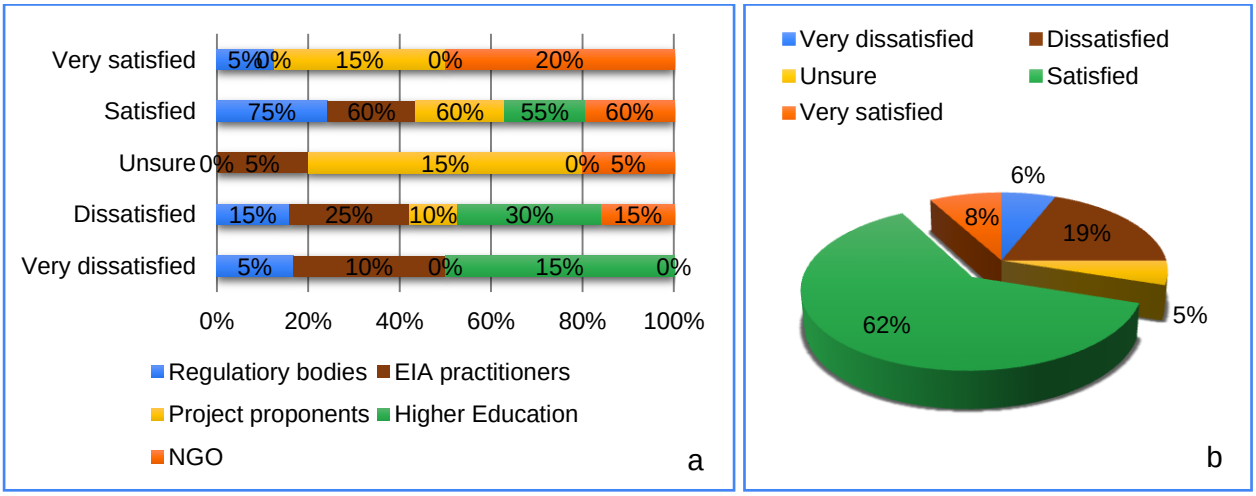

Figure 11: Satisfaction level of stakeholders on the overall effectiveness of EIA legislative framework: sector-based categorized response(a) & general response (b)

4.3 Effectiveness of Ethiopian EIA Administrative Framework

Questionnaires were designed to assess the effectiveness of the Ethiopian EIA administrative framework. The assessment was based on the key indicators of good EIA practices and relevant EIA administrative issues. Respondents' response on the efficiency of Ethiopian EIA administrative procedures show a wide range of results for a number of important indicators. Credibility predominantly rated as poor; with only 12% finding it effective, while a substantial 70% considered it ineffective. This indicates a serious lack of trust in the EIA processes and their outcomes. The availability of resource, is also an important issue for effectiveness of EIA administration. As revealed in Figure 12, It was considered effective by 45% of respondents, and very effective by 6%, but it was also considered ineffective by 26% and very ineffective by 23% of respondents. This demonstrates important financing, human resource, and technology support issues compromise the efficacy of EIA procedures.

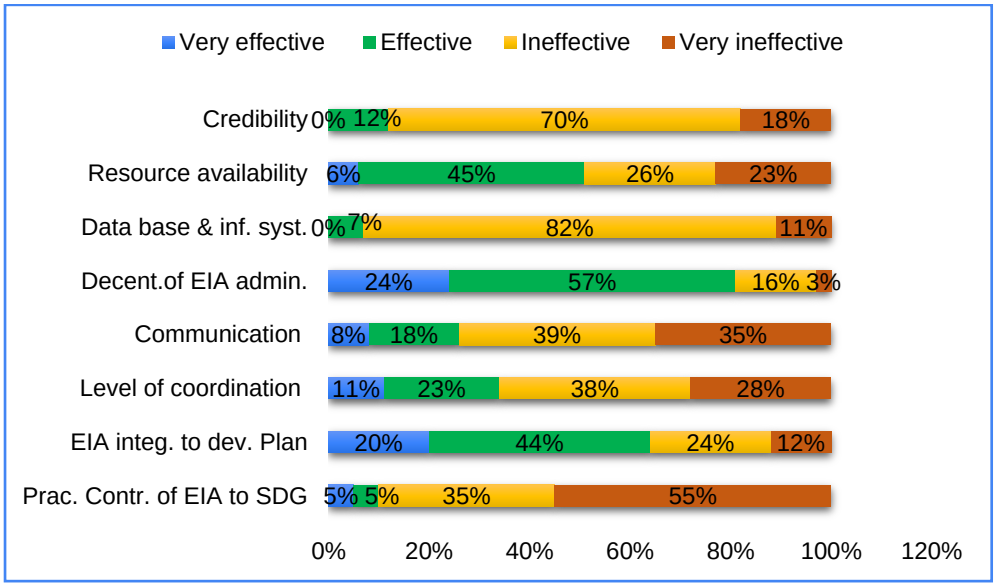

Figure 12: Respondents perception effectiveness of Ethiopian EIA administrative practices based key indicators

Based on the respondents' perception, the database and information system were one of the concern areas identified in the EIA administrative endeavors which received ratings of 82% ineffective and 11% highly ineffective from the respondents. The fact that so few respondents thought it was effective may highlights the information gap of respondents on the specified issue.

Decentralization of EIA administration received relatively positive feedback, with 57% considering it effective and 24% very effective. Only 16% found it ineffective and a mere 3% very ineffective, suggesting that localized control is largely seen as beneficial, although there are concerns about consistency and uniformity across different regions.

One of the main areas of concern with the EIA framework is communication. Merely 8% and 18% of respondents thought it was very effective and effective, respectively, while 39% found it ineffective, and 35% thought it was very ineffective. This suggests serious problems with stakeholder participation and interagency cooperation, both of which are essential for the effective execution of EIAs (Yusuf, 2021; Mohammed, 2021). The level of coordination is also one of the concern areas that needs and intervention, as only 11% and 23% rated it as extremely effective and effective, respectively. However, 28% said it was extremely unsuccessful, and 38% thought it was ineffective, indicating serious difficulties in securing coordinated and cooperative efforts from the many parties participating in the EIA process.

Regarding the level of EIA integration into development planning, it is increasingly being integrated, as evidenced by the 44% of respondents who found the level of EIA integration into development planning to be effective and the 20% who thought it to be extremely effective. To achieve complete integration, more enforcing procedures are still required, as indicated by the 24% of respondents who rated it as ineffective and the 12% who rated it as extremely ineffective.

Lastly, responses on the practical application of EIA to the Sustainable Development Goals (SDGs) were overwhelmingly negative, with 35% and 55% ranking it as ineffective and very unsuccessful, respectively. Just 5% thought it worked, and only 5% thought it worked really well. While EIAs are acknowledged as being vital, there appears to be a big gap between their theoretical benefits and their actual influence on sustainable development outcomes. This suggests that improvements must be made to both the implementation and follow-through of EIAs in order to truly make a difference (Hailemariam, 2024; Yigzaw, 2020).

In general, the perception of expertise in different organizations reflect a recognition of the efforts in place but also highlight considerable areas for improvement, particularly in resource allocation, data management, communication, coordination, and the practical application of EIA findings to support sustainable development in Ethiopia.

4.4 Efficiency of Ethiopian EIA Procedure

The study evaluated the perception of respondents on efficiency of Ethiopian EIA procedure through examination of various key indicators. The perception of respondents regarding the clarity of EIA legal provisions is crucial in understanding the efficiency of EIA procedure. The result revealed in Figure 13 suggests a significant concern regarding the clarity and specificity of legal provisions guiding the EIA process, with 45% of dissatisfaction responses of respondents. This highlights a potential area for improvements in ensuring that the legal framework governing EIAs is comprehensive and unambiguous, providing clear guidance for all stakeholders involved.

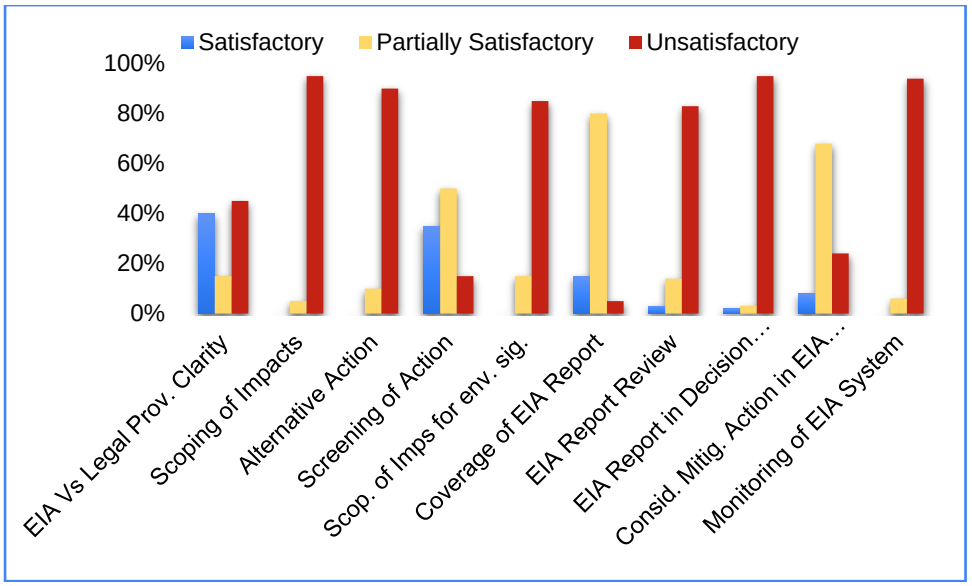

Figure 13: Perception of respondents on efficiency of Ethiopian EIA procedure

With regard to the scoping of impacts or assessments of relevant environmental impacts of all significant actions, the majority of respondents (95%) expressed dissatisfaction with the EIA system's approach to assess relevant environmental impacts. This indicates a generally negative perception of the EIA process's ability to comprehensively identify and evaluate potential environmental consequences associated with proposed actions, demonstrating a week aspect of the EIA system. Similarly, the perception of respondents regarding the demonstration of reasonable alternative actions in the EIA process is largely negative, with 90% dissatisfaction. This suggests that stakeholders generally believed that the EIA process in-adequately considers and presents alternative course of action, promoting informed decision-making and potentially mitigating adverse environmental impacts. However, there are concerns regarding the screening of actions for environmental significance, respectively with 35% and 50% satisfied and partially satisfied respondents. This implies that, there may be shortcomings to effectively identify actions with significant environmental implications.

Regarding the scoping of impacts for environmental significance, while 85% of respondents expressed dissatisfaction, the remaining 15% indicated satisfaction. This indicates that although the majority of the respondents perceive the EIA process as ineffective in scoping environmental impacts and producing specific guidelines. In terms of the coverage of EIA reports meeting prescribed content requirements, the majority of respondents (80% and 15%) expressed partial satisfaction and satisfaction respectively, suggesting that EIA reports generally fulfill the necessary criteria. However, the dissatisfaction of 5% of respondents signals a need for ensuring consistency and completeness in EIA report content across all projects. The perception of respondents regarding the review of EIA reports and the proponent's responsiveness to raised points is largely negative,

with 83% expressing dissatisfaction. This underscores the importance intervention of public involvement and transparency in the EIA process, as well as the accountability of project proponents in addressing concerns raised during the review process.

Furthermore, as revealed in respondents' response in Figure 13, the EIA report is not a central determinant of decision-making process, with 95% of respondents expressing dissatisfaction. This underscores the significance of EIA findings in informing decision-making processes which is inadequately addressed. Regarding the consideration of mitigation actions throughout the EIA process, there is a noticeable discrepancy, with only 8% of respondents expressing satisfaction. This suggests a need for greater emphasis on integrating mitigation measures into all stages of the EIA process to effectively address and minimize potential environmental impacts. Finally, the monitoring of the EIA system is perceived negatively by the majority of respondents (94%), indicating a great gap on ongoing monitoring and evaluation in ensuring the effectiveness and compliance of the EIA process.

4.5 Implementation Status of Environmental Management Plan in Ethiopia

The perception of respondents regarding the implementation status of environmental management plans reveals varying degrees of satisfaction across different aspects. These perceptions are crucial indicators of how stakeholders view the effectiveness and adherence to environmental regulations and practices in various projects. As revealed in Table 1, regarding the inclusion of environmental management plan actions in bidding and contract documents, the responses indicate a mixed perception. In this regard, a significant 48% rated this aspect as satisfactory, while 30% found it poor. With regard to the implementation of mitigation measures, the majority of respondents (65%) indicated availability of poor mitigation measures. This suggests existence a significant gap regarding the execution of mitigation actions on the ground. In another way, 69% of respondents rated the existence of poor monitoring of mitigation actions, indicating that respondents generally perceive inadequate mitigation measures are implemented as planned.

The frequency of environmental auditing conducted was predominantly (87%) rated as poor. This indicated that the majority of expertise in the field perceived that insufficient audits are conducted. The participation of stakeholders in the implementation of mitigation actions also shows a high level of dissatisfaction, with 71% rating it as very poor and 24% as poor. This suggests that respondents feel stakeholders are not adequately involved in environmental management efforts, which is crucial for effective implementation and local acceptance. Finally, as indicated in Figure

14, 68% of respondents responds that the regulatory body enforcements are inadequate, implying the existence of high-level concerns regarding the effectiveness of regulatory enforcements.

In summary, the poor implementation of environmental management plans in Ethiopia is a concerning issue marked by inadequate adherence to mitigation measures and regulatory oversight (Girma, 2010). Stakeholders frequently report shortcomings in integrating environmental actions into bidding and contract documents, with a significant proportion expressing dissatisfaction or rating implementation as poor. Monitoring of mitigation actions often falls short, exacerbating concerns about environmental impacts. Furthermore, despite efforts, the enforcement capacity of regulatory bodies remains insufficient, hindering effective compliance and environmental protection. These challenges underscore the urgent need for strengthened governance frameworks and enhanced stakeholder engagement to ensure sustainable development practices and mitigate environmental degradation effectively in Ethiopia.

Table 1: Perception of respondents on implementation of environmental management plan in Ethiopia

	Very good	Good	Satisfactory	Poor	Very poor
Inclusion of EMP actions in the bidding and contract docs	0%	20%	48%	30%	2%
Impl. of mitig. measures	0%	5%	18%	65%	12%
Monitoring of mitig. actions	1%	3%	13%	69%	14%
Freq. of env. aud carried out	0%	0%	8%	87%	5%
Partici. of stak. on impl. of mitig. actions	0%	2%	3%	24%	71%
Adeq. regulatory body enforcement	3%	6%	14%	68%	9%

4.6. Adequacy of legislative, procedural and administrative framework in the eyes of stakeholders

The comparative analysis of the adequacy of legislative, procedural, and administrative frameworks for Environmental Impact Assessments (EIAs) reveals varied perceptions among different stakeholder groups, including regulatory bodies, EIA practitioners, project proponents, higher education institutions, and non-governmental organizations (NGOs).

Table 2: Adequacy of legislative, procedural, and administrative framework in the eyes of stakeholders

Respondents Category	Familiarity to EIA Legisl. Fram. (Mod. & above)	Clarity	Adequacy to add. EIA imp. (Very G &+)	Adequacy to add. Comm. Int. (Very G &+)	Transparency (moderate & +)	Public Participation (Sig. * V. Sig.)
Regulatory bodies	95%	70%	50%	65%	65%	85%
EIA practitioners	95%	65%	40%	35%	55%	80%

Project proponents	35%	25%	60%	80%	35%	25%
Higher Education	90%	60%	35%	30%	45%	65%
NGO	25%	50%	25%	20%	55%	50%

This analysis provides insights into the strengths and weaknesses of the current EIA system and highlights areas requiring improvement. In this regard, regulatory bodies, EIA practitioners and higher education's exhibit a high level of familiarity with the EIA legislative framework, with above 90% of respondents from these groups reporting moderate or above levels of familiarity. This contrasts sharply with project proponents and NGOs, who show significantly lower familiarity levels, at 35% and 25%, respectively. The high familiarity among regulatory bodies, EIA practitioners, and higher education's suggests that these groups are well-versed in the legislative aspects of EIAs, which is crucial for effective implementation and enforcement. Conversely, the lower familiarity among project proponents and NGOs indicates a potential gap in understanding that could affect their engagement with and compliance to EIA requirements (Table 2).

Regarding the clarity of EIA procedures, regulatory bodies, EIA practitioners, and Higher education's again show relatively high levels of satisfaction, with 70%, 65%, and 60%, respectively. In contrast, project proponents report significantly lower clarity, with only 25% perceiving the procedures as clear. NGOs also express moderate clarity (50%). The disparity in perceptions suggests that while regulatory bodies, practitioners, and higher educations might have a clear understanding of EIA procedures, project proponents and NGOs may struggle with procedural transparency, which could hinder effective EIA implementation (Figure 15). When evaluating the adequacy for addressing EIA implementation, project proponents, regulatory bodies and EIA practitioners exhibit moderate confidence, with 60%, 50% and 40% respectively rating it as very good or above. In contrast, higher education and NGOs are less confident, with only 35% and 25%, respectively, viewing the framework as adequate for addressing implementation. This variance indicates that while some groups believe the framework can support addressing the EIA implementation efforts, others perceive it as inadequate, highlighting a potential need for reform to enhance the system's capacity.

As indicated in Figure 15, the adequacy of the EIA framework in addressing community interests is rated most favorably by project proponents and regulatory bodies, with 80% and 65% perceiving it as very good or above. Conversely, EIA practitioners, higher education, and NGO's rate this aspect lower, with 35%, 30%, and 20%, respectively. This suggests that project proponents and regulatory bodies may feel the system adequately considers community interests, while other stakeholders,

especially NGOs, higher education institutions, and EIA practitioners are not happy with the EIA frameworks in terms of addressing the community's interest. Transparency in the EIA process is perceived as moderate to high by 65% regulatory bodies, as well as EIA practitioners and NGO's. Project proponents, however, rate transparency poorly, with only 35% of respondents seeing it as moderate or above. Higher education institutions also rate it lower at 45%. The differences in transparency perceptions indicate a significant concern among project proponents regarding the openness of the EIA process, which could affect their trust and engagement with the EIA system (Roos *et al*., 2020).

The adequacy of the legislative, procedural, and administrative framework in terms of public participation is notably significant, with 85% of regulatory bodies and 80% of EIA practitioners viewing it as significant or very significant. Higher education institutions (65%) and NGOs (50%) also rate it as significant but to a lesser extent. Project proponents rate public participation the lowest at 25%. In general, while regulatory bodies and EIA practitioners generally perceive the EIA legislative and procedural frameworks more positively, higher education, project proponents and NGOs exhibit significant concerns, particularly regarding familiarity, clarity, and transparency. These differences highlight the need for a more cohesive approach to EIA implementation and communication to address the varied needs and perceptions of all stakeholders involved. Addressing these concerns could improve the overall effectiveness and acceptance of the EIA process.

4.7. Implementation Status of EIA in Selected Condominium Projects

Based on interviews conducted with the Addis Ababa Housing Agency and Addis Ababa Environmental Protection Agency, it was found that there is a significant issue regarding the unavailability of Environmental Impact Assessment (EIA) reports for condominium projects constructed in Yeka Abado, Kirkos, and Kasanchis areas of Addis Ababa. Both agencies acknowledged the absence of these crucial reports, which are essential for assessing and mitigating the environmental impacts of construction projects. This absence raises concerns about the adequacy of environmental planning and regulatory oversight in these densely populated urban areas. Without EIA reports, the potential environmental consequences of rapid urban development, including issues related to water resources, waste management, and air quality, remain unclear and unaddressed. The findings underscore the critical need for improved coordination between urban planning authorities and environmental agencies to ensure compliance with environmental regulations and sustainable development practices in Addis Ababa's condominium projects.

4.8. Environmental and Social Impacts of the Condominium Projects

Through the Focus Group Discussions (FGD) the social and environmental impacts of the condominium projects are examined. The selected FGD participants noted that they have been residing in the condominium project areas for several years. This experience provides them familiarity with the condominium projects. With regard to the participants' feeling about the condominium projects, their opinions on the condominium project were mixed. Some residents expressed enthusiasm, citing potential benefits such as increased property values and improved local amenities. Conversely, others felt apprehensive or disillusioned, worrying about potential negative impacts on the community's character and environment. Several participants mentioned the noticeable environmental changes they have observed since the construction began. Commonly mentioned alterations included increased noise levels, dust, and disruption of previously quiet areas. Additionally, there were reports of changes in local air quality and a rise in traffic congestion, which residents felt had affected their daily lives and overall comfort in the area.

The construction of the condominium project has led to significant changes in the local landscape. Participants described the removal of vegetation to make way for new buildings and infrastructure. Some noted changes in land use patterns, with formerly agricultural land now occupied by high-rise structures. Concerns were raised about the loss of green spaces and alterations to nearby water bodies, which had been important for local ecosystems.

Residents also observed some negative impacts on local wildlife and biodiversity. The construction site disrupted natural habitats, leading to a decrease in the presence of certain plant species as well as wild animals. There were concerns about the displacement of local wildlife and the potential long-term effects on the area's biodiversity, which residents felt might not be fully understood yet.

With regard the projects impact on the local infrastructure, the participants' perceived that, the construction and operation of the condominium projects had a significant impact on the local infrastructure. Positive effects included access to roads, education, health, and commercial facilities. With this, some improvements were noted by the participants such as enhanced public transportation options and better service coverage. However, there are also negative aspects of unimproved drainage and solid waste management systems that creates a negative impact to the environment.

Figure 14: Improper wastewater discharge and solid waste disposal

With regard to the air quality, participants reported the existence of a noticeable decline in air quality since the condominium projects began. The alteration of the natural ecosystem, improper solid waste and drainage management systems, and vehicular traffic contributed to higher pollution levels, which many felt impacted their health and well-being. There were also varying concerns regarding water quality in nearby sources. Some residents noted a perceived decline in water quality, attributing it to potential contamination from the wastewater discharges from condominium projects. Although there was a general call for monitoring and ensuring that water sources remain uncontaminated. According to the participants discussion, the condominium project had a notable impact on waste management practices. Participants observed an increase in waste generation due to construction debris and additional residential waste. It is reported that, even if solid waste collection systems are in place the management systems are contemptible. Concerns about improper waste disposal and pollution related to the condominium project were also raised. Issues included illegal dumping and inadequate waste management practices of residents, leading to pollution and community dissatisfaction. Residents emphasized the need for stricter regulations and enforcement to address these problems.

The condominium project induced various social and cultural changes within the community. Some residents noted shifts in community dynamics, including increased diversity and changes in local traditions. While some welcomed these changes, others felt that the project's presence had altered the community’s social cohesion and traditional ways of life.

Figure 14: Agricultural fields nearby condominium projects and the indigenous community's livelihood

Livelihood concerns emerged as a significant topic. Some participants experienced job opportunities related to the construction, while others faced challenges due to increased living costs or displacement. The economic impact of the condominium project on local businesses and employment was a key point of discussion, with mixed feelings about its overall effect on livelihoods. Even if the accessibilities of the health facilities are increased, health concerns linked to the condominium project were mentioned, including respiratory issues related to the traffic situation and bad odor released from improperly disposed solid waste as well as the drainage systems.

4.9. Statistical Analysis

4.9.1. Simple Linear Regression Model to Predict Adequacy of Administrative Framework

The regression model in Table 5 examines the relationship between the adequacy of the EIA administrative framework (dependent variable) and the effectiveness of EIA monitoring, action, and follow-up measures (independent variable). The model is significant at the 95% confidence level, as evidenced by the p-value of 0.006. This p-value is much lower than the typical threshold of 0.05, indicating that the independent variable (effectiveness of EIA monitoring, action, and follow-up measures) has a statistically significant impact on the dependent variable (adequacy of the EIA administrative framework). The t-value of 2.801 further confirms that the effectiveness of EIA monitoring and follow-up measures is a significant predictor of the adequacy of the EIA administrative framework. It also implies as the effectiveness of EIA monitoring, action, and follow-up measures increases, the adequacy of the EIA administrative framework also improves. In general, the model demonstrates a statistically significant relationship between the effectiveness of EIA monitoring, action, and follow-up measures and the adequacy of the EIA administrative framework. The positive t-value and significant p-value indicate that improvements in monitoring and follow-up measures are likely to lead to a more adequate administrative framework for EIA.

Table 3: Regression model summary for predict adequacy of administrative framework

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.272[a]	.074	.065	.953	1.700

a. Predictors: (Constant), the effectiveness of EIA monitoring, action, and follow-up measures

b. Dependent Variable: Adequacy of the EIA administrative framework

Table 4: ANOVA for predict adequacy of administrative framework

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	7.129	1	7.129	7.844	.006[b]
	Residual	89.061	98	.909		
	Total	96.190	99			

a. Dependent Variable: Adequacy of the EIA administrative framework

b. Predictors: (Constant), the effectiveness of EIA monitoring, action, and follow-up measures

Table 5: Coefficients for predict adequacy of administrative framework

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	1.783	.243		7.322	.000	1.299	2.266
	31. How well are monitoring of action impacts be undertaken and is it linked to the earlier stages of the EIA process?	.247	.088	.272	2.801	.006	.072	.422

a. Dependent Variable: Adequacy of the EIA administrative framework

4.9.2. Simple Linear Regression Model to Predict Contribution of EIA to Achieve Sustainable Development

The regression model in Table 8 examines the relationship between the contribution of EIA to achieve sustainable development (dependent variable) and level of coordination, resource availability, credibility, clarity and specificity of EIA process, implementation of monitoring of EIA system, and the extent of consultation and participation of the relevant stakeholders prior to and during the implementation of mitigation actions (independent variables). The model is significant at the 95% confidence level, as evidenced by the p-value of 0.007. This indicates that the independent variables have a statistically significant impact on the dependent variable. In this regard credibility, consideration of mitigation action at various stage of EIA process, and implementation of monitoring of EIA system increases the contribution of EIA to achieve sustainable development or

have a positive significant impact at 95% confidence level. Whereas, level of coordination, clarity and specificity of EIA legal provision, and the extent of consultation and participation of the relevant stakeholders similarly have a significant positive impact on contribution of EIA to achieve sustainable development at 90% confidence level.

Table 6: Regression model summary to predict contribution of EIA to achieve sustainable development

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.450[a]	.203	.132	.977	2.657

a. Predictors: (Constant), 13. Level of coordination, 17. Resource availability, 18. Credibility, 27. Consideration of mitigation action at various stage of EIA process, 28. Implementation of monitoring of EIA system, 33. The extent of consultation and participation of the relevant stakeholders prior to and during the implementation of mitigation actions

b. Dependent Variable: 11. Contribution of EIA to achieve sustainable development.

Table 7: ANOVA to predict contribution of EIA to achieve sustainable development

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	22.073	8	2.759	2.888	.007[b]
	Residual	86.927	91	.955		
	Total	109.000	99			

a. Dependent Variable: 11. Contribution of EIA to achieve sustainable development.
b. Predictors: (Constant), 13. Level of coordination, 17. Resource availability, 18. Credibility, 27. Consideration of mitigation action at various stage of EIA process, 28. Implementation of monitoring of EIA system, 33. The extent of consultation and participation of the relevant stakeholders prior to and during the implementation of mitigation actions

Table 8: Coefficients to predict contribution of EIA to achieve sustainable development

Coefficients[a]

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
	B	Std. Error	Beta			Lower Bound	Upper Bound
1 (Constant)	3.527	1.237		2.850	.005	1.069	5.985
13. Level of coordination	.148	.088	.159	1.689	.095	.322	.026
17. Resource availability	.109	.084	.125	1.300	.197	.277	.058
18. Credibility	.553	.196	.288	2.820	.006	.164	.943
19. Clarity and specificity of EIA legal provision	.249	.145	.170	1.721	.089	.038	.537
27. Consideration of mitigation action at various stage of EIA process	.259	.118	.211	2.200	.030	.493	.025

28. Implementation of monitoring of EIA system	.904	.438	.206	2.066	.042	1.773	.035
33. The extent of consultation and participation of the relevant stakeholders prior to and during the implementation of mitigation actions	.232	.122	.204	1.907	.060	.473	.010

a. Dependent Variable: 11. Contribution of EIA to achieve sustainable development.

Chapter 5:- Conclusions and Recommendations

5.1. Conclusions

The study highlights several critical aspects of the Ethiopian Environmental Impact Assessment (EIA) framework and its practical implications. Findings indicate a notable variance in familiarity with EIA legislation among stakeholders. EIA practitioners and regulatory bodies exhibit a strong understanding of the legislative framework, while project proponents, higher education experts, and NGOs show moderate to low familiarity. The clarity and ease of understanding of the EIA framework received mixed responses, with some stakeholders finding it clear and accessible while others perceived it as less so.

The study underscores both strengths and weaknesses in the Ethiopian EIA system. Positive aspects include a relatively high satisfaction with the framework's ability to incorporate community concerns and a growing integration of EIA into development planning. However, significant concerns were identified, including dissatisfaction with the EIA system's ability to assess, mitigate, and monitor cumulative environmental impacts, inadequate administrative procedures, poor communication and coordination, and ineffective implementation of mitigation measures. The negative perceptions extend to the system's capacity to support Sustainable Development Goals (SDGs) and the effectiveness of EIA reports in decision-making processes.

Focus Group Discussions (FGD) further revealed a range of social and environmental impacts associated with condominium projects, such as changes in local air quality, infrastructure, community dynamics, and natural habitats. While some stakeholders view these developments as beneficial, others are concerned about the adverse effects on the environment and social cohesion.

5.2. Recommendations

- To address the varying levels of familiarity with EIA legislation, both the federal EPA and Addis Ababa's EPA should implement targeted training programs for project proponents, higher education experts, and NGOs. These programs should focus on increasing awareness and understanding of EIA regulations, processes, and best practices.
- The Federal EPA should streamline and simplify the EIA legislative framework to enhance its clarity and ease of comprehension for all stakeholders. Consider developing user-friendly

guides and resources that explain key components of the EIA process and legislative requirements.

- The Federal EPA should reevaluate and strengthen the EIA legislation to address identified deficiencies, particularly in assessing and mitigating cumulative environmental impacts. Improve the adequacy of criteria used to determine environmental significance and ensure comprehensive consideration of all relevant impacts.
- Both the federal EPA and Addis Ababa's EPA should increase transparency in the EIA process by improving the accessibility of environmental permits and approvals. Foster greater public participation by creating more opportunities for community engagement and feedback throughout the EIA process.
- Both the federal EPA and Addis Ababa's EPA should develop clear communication channel (different ways of disseminating information) among stakeholders and ensure effective coordination between regulatory bodies, EIA practitioners, and project proponents.
- Addis Ababa's EPA should conduct regular environmental audits and engage stakeholders in the monitoring process.

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Annex I: Survey Questionnaire

Survey Questionnaire

College of Developmental Studies

Center for Environment and Development

Dear all,

I am Yemane Zegeye, a student at Addis Ababa University. I designed this questionnaire to collect data for Master thesis research purposes which is titled "Implementation Status of Environmental Impact Assessment in Condominium Projects: The Case of Addis Ababa City Administration, Ethiopia".

This research is intended for academic purpose authorized by Addis Ababa University. Thus, your ideas and comments are very pleased and kept private. Your honest responses to the question have higher value for the success of the research.

Therefore, I kindly ask you to respond to the questions, but if you have an issue you can ask clarification or withdraw at any time.

Thank for your cooperation.

Address:- Email: yztab@yahoo.com/ **Mobile Phone: +251976019077**

I. Demographic information

1. Gender
   A. Male
   B. Female
2. Qualification
   A. BA/BSC
   B. MA/MSC
   C. PHD
3. Age
   A. 18 to 24
   B. 25 to 34
   C. 35 to 44
   D. 45 to 54
   E. 55 to 64
   F. > 65

4. Field of specializations

   _____

5. Organization Category
   Regulatory
   Project Proponent
   NGO
   Higher Institution
   EIA Practitioner
6. Position in your organization

   _____

II. Questionnaire for assessing the perception of professionals on the adequacy of
Ethiopian EIA legislative framework

1. How familiar are you with the existing legislation governing environmental impact assessments?
   A. not at all familiar

B. Slightly familiar
C. Somewhat familiar
D. Moderately familiar
E. Extremely familiar

2. Have you found the legislative framework for environmental impact assessment to be clear and easy to understand?
A. Yes
B. No

3. How well does the current legislation address the potential environmental impacts of projects/activities?
A. Poor
B. Fair
C. Good
D. Very good
E. Excellent

4. How effectively does the legislative framework consider the concerns and interests of local communities affected by projects/activities?
A. Poor
B. Fair
C. Good
D. Very good
E. Excellent

5. Are the criteria for determining environmental significance in the legislation appropriate and satisfactory?
A. Yes
B. No

6. How transparent and accessible is the process of obtaining environmental permits and approvals under the legislative framework?
A. Not at all
B. Slightly
C. Moderately
D. Very transparent and accessible
E. Extremely transparent and accessible

7. To what extent does the current legislation encourage public participation and engagement in the EIA process?
A. Very minimal
B. Minimal
C. Moderate
D. Significant
E. Very Significant

8. Does the legislative framework adequately address the assessment, mitigation, and monitoring of cumulative environmental impacts?
A. Yes
B. No

9. Is the legislation in promoting sustainable development and the integration of environmental considerations into decision-making processes effective?
A. Strongly disagree
B. Disagree
C. Neither agree or disagree
D. Agree
E. Strongly agree

10. How satisfied are you with the overall effectiveness of the legislative framework for environmental impact assessment?

A. Very dissatisfied
B. Dissatisfied
C. Unsure
D. Satisfied
E. Very satisfied

III. Questionnaire for assessing the perception of professionals on the effectiveness of Ethiopian EIA administrative framework

11. To what extent are you familiar with the legislative framework governing environmental impact assessment?

A. not at all familiar
B. Slightly familiar
C. Somewhat familiar
D. Moderately familiar
E. Extremely familiar

12. How often do you consult the legislative framework to guide your environmental impact assessment activities?

A. Never
B. Almost never
C. Occasional/Sometimes
D. Almost every time
E. Every time

13. Rate the clarity and comprehensiveness of the legislative framework for environmental impact assessment.

A. Not at all clear
B. Slightly clear
C. Somewhat clear
D. Moderately clear
E. Extremely clear

14. Have you encountered any challenges or ambiguities in interpreting and applying the legislative framework for environmental impact assessment?

A. yes,
B. No

If Yes, please provide specific examples.

_____

_____

15. How would you rate the level of stakeholder engagement and involvement in the legislative framework for environmental impact assessment?

A. Poor
B. Fair
C. Good
D. Very good
E. Excellent

16. Do you believe that the legislative framework adequately addresses the potential environmental impacts of development projects?

A. Yes
B. No

17. Rate the effectiveness of legal provisions in mitigating adverse environmental impacts during development processes.

A. Poor
B. Fair

C. Good
D. Very good
E. Excellent

18. Have you observed any gaps or limitations in the legislative framework regarding environmental impact assessment?
A. Yes
B. No

If yes, please specify. _____
_____

19. How satisfied are you with the enforcement and compliance mechanisms outlined in the legislative framework for environmental impact assessment?
A. Very dissatisfied
B. Dissatisfied
C. Unsure
D. Satisfied
E. Very satisfied

20. In your opinion, how well does the legislative framework consider the principles of sustainability and environmental justice?
A. Strongly disagree
B. Disagree
C. Neither agree or disagree
D. Agree
E. Strongly agree

IV. Questionnaire for assessing the perception of professionals on the application of Ethiopian EIA Procedure.

S.N	Indicators	Level of application		
		Satisfactory	Partially Satisfactory	Un satisfactory
21	**Is the EIA system based on clear and specific legal provisions?**			
22	**Do the relevant environmental impacts of all significant actions be assessed?**			
23	**Do reasonable alternative actions be demonstrated in the EIA process?**			
24	**Must screening of actions for environmental significance take place?**			
25	**Do scoping of the environmental impacts of actions take place and specific guidelines be produced?**			
26	**Do EIA reports meet prescribed content requirements?**			
27	**Do EIA reports be publicly reviewed and the proponent respond to the points raised?**			
28	**Must the findings of the EIA report and the review be a central determinant of the decision on the action?**			

29	**Does the mitigation of action impacts be considered at the various stages of the EIA process?**			
30	**Do monitoring of EIA system carried out?**			

V. Questionnaire for Assessing the Perceptions of Concerned Professionals on Implementation of EMPs

S.N	**Issues**	**Level of effectiveness**					
		Excellent	**Good**	**Satisfactory**	**Poor**	**V. Poor**	**No opinion**
31	**Are environmental management actions sufficiently incorporated in the bidding and contract documents, so that contractors can understand what is expected of them in the environmental area?**						
32	**How well are the mitigation measures of significant environmental impacts usually implemented?**						
33	**How well are monitoring of action impacts be undertaken and is it linked to the earlier stages of the EIA process?**						
34	**How well are the environmental auditing usually carried out?**						
35	**What is the extent of consultation and participation of the relevant stakeholders prior to and during the implementation of mitigation actions?**						
36	**How is the adequacy of regulatory body enforcement for effective implementation of mitigation, monitoring and follow up measures?**						

Annex II: FGD Guiding Questions.

1. How long have you been living in this area, and how familiar are you with the condominium project?
2. What are your thoughts and feelings about the condominium project and its presence in this area?
3. Have you noticed any changes in the environment since the construction of the condominium project began? If so, what changes have you observed?
4. Can you describe any changes you have noticed in the local landscape, such as changes in vegetation, land use, or water bodies, since the condominium project was constructed?
5. Have there been any impacts on natural habitats, wildlife, or biodiversity in the area as a result of the construction and operation of the condominium project?
6. How has the construction and operation of the condominium project impacted (both positive and negative) the local infrastructure, such as roads, drainage systems, or utility services (e.g., water, electricity)?
7. Have there been any disruptions or benefits in access to essential services or resources for the community after the condominium project construction?
8. Have you noticed any changes in air quality or pollution levels in the area since the condominium project was constructed?
9. Are there any concerns about water quality or contamination in nearby water sources due to the condominium project?
10. How has waste management been affected by the condominium project? Have you observed changes in waste generation, collection, or disposal practices?
11. Are there any concerns about improper waste disposal or pollution related to the condominium project?
12. Have there been any social or cultural changes in the community as a result of the condominium project? For example, changes in community dynamics, traditions, or social cohesion?
13. How has the relationship between residents and the environment evolved since the construction of the condominium project?
14. Are there any livelihood concerns that you attribute to the presence of the condominium project?
15. Have you experienced any health issues or observed changes in the health of community members that you believe are related to the condominium project?
16. How can residents and stakeholders work together to address concerns and improve environmental sustainability in the area?

Annex III: Observation Checklist

Environmental observation Checklist of the proposed sites

Inspection Items	Implemented		N/A	Remark
	Yes	No		
1. Site preparation				
1.1. Is Environmental Screening conducted for the built condominium site?				
1.2. Are consultations conducted with all stakeholders before the project?				
1.3. Suggestions received on the final design?				
1.4. Are suggestions received from stakeholders been incorporated into design				
1.5. Are reasons for not incorporating suggestions been communicated to the stakeholders				
2. Environmental Clearances				
2.1 Environmental clearances to be obtained, if required				
2.2 Pollution control				
2.3 Water Resources				
2.4 Forest				
3. Loss of Common Property Resources				
3.1 Are provisions made to community losing common property or assets, if any				
3.2 Are provisions for relocation of cultural properties been made				
3.3 Are provisions made for relocation of affected utilities				
3.4 Procedure followed for relocation				
4. Temporary Relocation				
4.1 Temporary relocation provided as per approved plan				
4.2 Majority of stakeholders agreed for temporary relocation				
4.3 Basic facilities provided at temporary sheds (toilet, drinking water, etc)				
5. Material source identification, extraction and rehabilitation				
5.1 Is quarry material is being used from existing quarry				
5.2 Is material from existing quarries in sufficient quantities for the project				
5.3 Is the project area water scarce?				

Inspection Items	Implemented		N/A	Remarks
	Yes	No		
6. Water Bodies				
6.1 Does the proposed construction activity directly affect or located adjacent to water body?				
6.2 Are consultation conducted with stakeholders for seeking consent and measures to be taken to mitigated impacts				
6.3 Are design/plan prepared indicating pond to be affected				
6.4 Are provisions made for control of pollution of pond water during construction				
6.5. Are provisions made for rehabilitation of the water body, if affected				
7. Slope Stability, Soil Erosion & Top soil conservation				
7.1 Are slope stabilization engineering Measures taken?				
7.2 Are erosion control measures taken?				
7.3 Are provisions made for conservation of topsoil in stockpiles				
8. Drainage				
8.1 Are drains/culverts at such locations designed to handle the afflux and to ensure that areas do not get flooded				
8.2 Has provision been made for construction of temporary water diversion channel and potential users are informed about it				
8.3 Are provisions made for erection of safety devises, Deep excavation barrier, warning signs and warning posts at construction locations				
9. Protection of vegetation				
9.1. Are trees being cut by the project, if yes indicate number of trees felled				
9.2. Is clearance from the forest department Obtained, if necessary				
9.3. Is land identified for compensatory plantation				
9.4. Amount of Compensation deposited to Forest Dept.				
9.5. No. of trees planted as per the compensatory afforestation plan and locations				
9.6. Is the maintenance of the compensatory afforestation plan done by the contractor?				
10. Historical/Heritage Site				
10.1. Any historical heritage exists on site? If yes, ensure appropriate measures taken to report it to District Authorities and preserve it				
10.2. Others (please specify)				

Inspection Items	Implemented		N/A	Remarks
	Yes	No		
11. Natural Habitat				
11.1. Does any natural habitat exists adjacent to the construction site				
11.2. Is identification of ecological features being done during screening				
11.3. Is Natural habitat Management Plan prepared				
11.4. If yes, are all measures followed during implementation				
12. Air Pollution Control				
12.1. Are the construction sites watered to minimize dust generated?				
12.2. Are all vehicles carrying dusty loads covered/watered over prior to leaving the site?				
12.3. Are dust controlled during percussive drilling or rock breaking?, if applicable				
12.4. Are plant and equipment well maintained? (any black smoke observed, please indicate the plant/equipment and location)				
13. Water Pollution Control				
13.1 Are there any wastewater discharged to the storm drains?				
13.2. Are sandbags/earth bund adopted to prevent washing away of sand/silt and wastewater to drains, catchpit, public road and footpath?				
13.3. Is domestic water directed to septic tanks or chemical toilets?				
13.4. Others (please specify)				
14. Noise Control				
14.1. Is the Noisy construction activities be carried out during normal working hours?				
14.2. Any noise mitigation measures adopted (e.g. use noise barrier / enclosure)?				
14.3. Are utilized?				
15. Waste Management				
15.1. Is the site kept clean and tidy? (e.g. litter free, good housekeeping)				
15.2. Are separated labelled containers / areas provided for facilitating recycling and waste segregation?				
15.3. Are construction wastes / recyclable wastes and general refuse removed off site regularly?				
15.4. Are constructions wastes collected and disposed of properly by licensed collectors?				
15.5. Are chemical wastes, if any, collected and disposed of properly by licensed collectors?				

Inspection Items	Implemented		N/A	Remarks
	Yes	No		
15.6. Are oil drums and plants/equipment provided with drip trays?				
15.7. Are drip trays free of oil and water?				
15.8. Is there any oil spillage? Clean-up the contaminated soil immediately?				
15.9. If any asbestos roof material is replaced?				
15.10.If Yes, then what is the quantity of waste				
16. Emergency Preparedness and Response				
16.1. Are fire extinguishers / fighting facilities properly maintained and not expired? Escape not blocked / obstructed?				
16.2. Are accidents and incidents reported and reviewed, and corrective & preventive actions identified and recorded?				
16.3. Others (please specify)				
17. Execution of Good Environmental Practices				
17.1. Whether following structures are part of the approved master plan? (Water harvesting structure, Vermi composting pit, solar panel, etc)				
17.2. Mention the execution status				
17.3. Whether any deviation from the proposed design is happening				