



ADDIS ABABA UNIVERSITY
COLLEGE OF DEVELOPMENT STUDIES
CENTER FOR ENVIRONMENT AND DEVELOPMENT

EVALUATION OF THE IMPLEMENTATION AND FOLLOW UP OF
ENVIRONMENTAL AND SOCIAL IMPACT ASSESSMENT
RECOMMENDATION: THE CASE OF META ABO BREWERY

BY: LEMESA HIRPE

JULY, 2020
ADDIS ABABA, ETHIOPIA



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Declaration

I, the undersigned, declare that this thesis is my original work and has not been presented for the fulfillment of a degree in this or other universities, and all sources and materials used for this thesis have been correctly acknowledged.

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This is to certify that the thesis prepared by **Lemesa Hirpe Wari**, entitled; '**Evaluation of the Implementation and Follow up of Environmental and Social Impact Assessment Recommendation: The Case of Meta Abo Brewery**' submitted to the Center for Environment and Development of College of Development Studies in partial fulfillment of the requirements for the degree of Master of Arts in Development Studies (Environment and Sustainable Development) complies with the regulations of the University and meets the accepted standards concerning originality and quality.

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Abstract

Implementation and follow up of Environmental and social impact assessment (ESIA) is one of the critical elements of the ESIA process which covers the activities after the approval conditions of the ESIA study of development project. However, ESIA has been conducting for different development projects, the implementation and follow up of ESIA recommendation after the approval condition is not systematically considered. As a result, the main objective of this study was to investigate the implementation and follow up of ESIA recommendation in Meta Abo Brewery found in Sebeta City. This study was particularly focused on the implementation mechanism and status of ESIA monitoring and evaluation, adequacy of legal and administrative framework for implementation and follow up of ESIA recommendation and perception of residents on the implementation and follow up of ESIA recommendation by proponent in Meta Abo Brewery. Both qualitative and quantitative research approaches were employed for this study. This study used primary and secondary sources. The key informant interview, focus group discussion, closed-ended questions, and document review were used as data collection techniques. In this study, 11 key informants, 1 focus group discussion and 175 respondents of closed-ended questions were used. The purposive and random sampling techniques were employed to select samples of this study. This study also used thematic and descriptive statistical data analysis methods. The main findings of this study were weak implementation mechanism and weak status of ESIA monitoring and evaluation due to weak implementation of ESIA monitoring and evaluation by the proponent and regulatory bodies. Lack of adequate and updated legal and administrative frameworks for effective implementation and follow up of ESIA recommendation and weak implementation and follow up of ESIA recommendation by proponent of Meta Abo Brewery. The study recommended that the Federal EFCCC, Oromia Region EFCCA and Sebeta City EFCCA, proponent, local communities and other concerned stakeholders should have to work for future improvement of the implementation and follow up of environmental and social impact assessment recommendation in Meta Abo Brewery.

Keywords: *ESIA implementation and follow up, Meta Abo Brewery, Proponent, Sebeta*

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Abbreviations

EFCCA	Environment, Forest and Climate Change Authority
EFCCC	Environment, Forest and Climate Change Commission
EFBPIDI	Ethiopian Food, Beverage, and Pharmaceutical Industry Development Institute
EIA	Environmental Impact Assessment
EIS	Environmental Impact Statement
EPA	Environmental Protection Authority
EPE	Environmental Policy of Ethiopia
ESIA	Environmental and Social Impact Assessment
ESMP	Environmental and Social Management Plan
FDRE	Federal Democratic Republic of Ethiopia
IAIA	International Association for Impact Assessment
JICA	Japan International Cooperation Agency
MAB	Meta Abo Brewery
MELCA	Movement of Ecological Learning and Community Action
OEFCCA	Oromia Environment, Forest and Climate Change Authority
SCAO	Sebeta City Administrative Office
SCEFCCA	Sebeta City Environment, Forest and Climate Change Authority
SCHO	Sebeta City Health Office
SCIO	Sebeta City Investment Office
SCLSAO	Sebeta City Labor and Social Affairs Office
SEA	Strategic Environmental Assessment
UK	United Kingdom
UNCED	United Nations Conference on Environment and Development
UNCHE	United Nations Conference on Human and Environment
UNEP	United Nations Environment Programme
USA	United States of America

CHAPTER ONE

1. INTRODUCTION

1.1. Background

The brewery industry is one of the most common industrial beverages in the world. Globally, the brewery industry has significant contribution to the economic development (Tsegaye & Leykun, 2019). This brewery is required to operate in an environmentally friendly way to strength the role of brewery industries in economic growth and development activities because it may have harmful effect on the environment and society unless it is implemented in a sustainable manner. The major environmental and social impacts associated with the operation phase of brewery industries include water consumption, wastewater, solid waste and by-products, energy use and emissions to air (Olajire, 2012).

In Africa, most brewery industries are owned by private company and still far from accepted international best practice level in implementing environmental management system. Many breweries in Africa have adopted ISO 14000 environmental management system standards for the sake of international market interests (UNEP, 2010). This indicates environmental and social impacts which may resulted from the brewery industries have been affecting the environment and societies. However, the brewery industry has basic role in improving the economic growth of developing countries such as Ethiopia.

Ethiopia is one of the developing countries which have been taking different measures to increase the brewery industry in the country. The Ethiopian Food, Beverage, and Pharmaceutical Industry Development Institute were established with the objective “to provide all-round support to the food, beverage, and pharmaceutical industry and thereby speed up technology transfer and assist the industrial transformation at international levels” (Reg. No. 287/2013). Then, this industry shows a wonderful growth to transform into the most competitiveness industry which leads to more investment in the farming sector for the input of beer production. Moreover, the brewery industry has its roles in increasing the rapid economic development to realize the goals of sustainable development of Ethiopia by 2030.

According to the Ethiopian Food, Beverage, and Pharmaceutical Industry Development Institute (EFBPIDI) Report (2019), the country produces around “seven million hectoliters of beer per year”. This shows the rise of the popularity of the beverage market in Ethiopia. Currently, the foreign direct investment groups are become participating in the beverage

industry in Ethiopia (Greg, 2016). This also indicates the global investment groups are increasingly attracted to this industry. As a result, Meta Abo Brewery is one of the development projects established in 1963 in Sebeta City by the Ethiopian government and transferred to the global company known as Diageo private limited company after 49 years in 2012. The company adhered to a clear strategy to transform the brewery industry in Ethiopia (Diago, 2015). Diageo corporate board approved the implementation of the Walia project intended to expand the capacity of Meta Abo Brewery. The expansion of this brewery may include the expansion and installation of several units including storage vessels, bottling lines, wastewater treatment, effluent treatment, and utilities.

On the other hand, the Oromia National Regional State Environmental Impact Assessment Proclamation (Proc. No. 176/2012) states that, when the proponent request for the expansion of his/her project, environmental authority organ shall ensure whether the project needs environmental and social impact assessment or not before issuing the license. Hence, the expansion activities of this brewery may affect the human and environment unless the impact mitigation measures and management activities are identified. The concept of sustainable development should be work for the environment during the implementation of the development project. Environmentally sound development activities have a vigorous role in building a diversified economy, creating job and wealth, providing essential services, and become a key engine of economic and social improvement (Gizaw, 2011). However, unsustainable development activities may seriously affect the environment and human activities unless it's systematically managed.

The government of Ethiopia has been taken different decisions to protect and mitigate the impacts of development project activities on the environment. Among those determining environmental and social impact assessment (ESIA) as the pre-requirements for the approval of the development project is the major actions taken by the government. As stated on environmental impact assessment (EIA) proclamation (Proc. No. 299/2002) 'without approval from the Regional Environment, Forest and Climate Change Authority, no person shall start the implementation of any project that requires environmental impact assessment'.

According to International Institute of Sustainable Development (2016), environmental and social impact assessment is the process of identifying, predicting, and evaluating the environmental, social, economic, and cultural impacts of a proposed development project to address mitigation actions to reduce the negative impacts and provide positive contributions

to sustainable development. Hence, it's become a fundamental tool of environmental and social management to manage the significant negative impacts of the development project. The environmental and social impact assessment is a systematic process used to provide relevant information about the environmental and social effects of decision-makers (Gizaw, 2011). The approval or rejection of the environmental and social impact assessment report of the development project presented by the owner of the project depends on the information addressed in the document. The environmental and social impact assessment recommendation is the significant issues addressed by the study for the implementation of the proposed project. This includes the implementation of environmental and social management plan, establishment of environmental unit, monitoring, evaluating and reporting the environmental performance, addressing unforeseen environmental and social impacts and other approval conditions. As stated above, the expansion of Meta Abo Brewery Share Company passed through environmental and social impact assessment process to identify, forecast, and mitigate the significant environmental and social impacts which result during the implementation of this project.

Regards to the Environmental Protection Authority (EPA) (2003), environmental and social impact assessment has different process stages through which the approval of the environmental and social impact assessment report passed. The implementation and follow up is one of the main components of environmental and social impact assessment processes which conducted to check the implementation of the conditions during the project approval and to identify the environmental and social unforeseen impacts which results from project implementation activities (Morrison & Arts, 2012). The implementation and follow up of environmental and social impact assessment recommendation should be effective to implement the mitigation measures identified through environmental and social impact assessment study of development projects.

In this regard, article 3 sub-article (3) of environmental impact assessment proclamation (Proc. No. 299/2002) states that 'any licensing agency shall, before issuing an investment permit or an operating license for any project, ensure that the authority or the relevant regional environmental agency has authorized its implementation'. This suggests that the relevant environmental authority which made the approval of the environmental and social impact assessment study of Meta Abo Brewery Share Company and proponent have the legal responsibility to implement and follow up the environmental and social impact assessment recommendation studied for this project.

1.2.Statement of the Problem

According to Abdul (2013), anthropogenic activities designed and practiced for development and economic growth will have directly or indirectly affect the environment. In countries like Ethiopia, where the development projects become rapidly emerging, the environmental and social impacts from development projects will be the major problems. Then, the negative impacts that affect the environment and socio-economic activities of the local community around the development project needs effective implementation and follow up of environmental and social impact assessment recommendation after the approval of the project activities.

As stated on the environmental impact assessment proclamation (Proc. No.299/2002: P-1994) the federal or 'regional environmental authority shall monitor the implementation and follow up of an approved project to evaluate environmental compliance with all commitments made by, and obligations imposed on the proponent during approval conditions'. This indicates that the responsibility of the regulatory body is not limited to the environmental and social impact assessment approval for the development projects but also they have the responsibility to follow up its implementation. Although the environmental and social impact assessment has been conducting in the country, the impacts from the development projects are affecting the environment, social, cultural and economic activities of the local communities due to different factors.

Meta Abo Brewery Share Company is one of the development projects found in Sebeta City and expanded with a new design. The expansion of this brewery was made by the new owner to increase the quality and quantity of its products. These expansions need the environmental and social impact assessment to address the mitigation measures of significant impacts of the project. Then, the environmental and social impact assessment study was conducted by Aurecon international consultant with the cooperation of Yerer Engineering environmental consultant. The approval of the environmental and social impact assessment study of Meta Abo brewery was made by Sebeta City Environment, Forest and Climate Change Authority (SCEFCCA) in 2014 (Diageo, 2014). This project is currently under the operations of alcoholic and non-alcoholic beverages.

The brewery industry uses a large amount of water and also may produce a high amount of liquid wastes when compared to other development projects. Even though the environmental and social impact assessment was conducted and different mitigation measures were identified for impacts resulted from Meta Abo Brewery, the implementations of mitigation measures were weak. As a result, the liquid wastes from the project are released to the Abo

River found nearest to the Meta Abo Brewery. The water of this river has been used for irrigation and other purposes by downstream villages for many years. But, now the color of the water of this river was changed due to the liquid wastes discharged to the river from the project. There is also an unpleasant smell that comes out of the project. In addition to this, solid waste management in this project is poor. This all may bear the environmental damage and affects the day-to-day life activities of the community.

This all requires effective implementation and follow up of environmental and social impact assessment recommendation to evaluate the environmental and social impact assessment approval conditions of the projects against environmental compliance. On the other hand, the implementation of environmental and social impact assessment recommendation directly or indirectly depends on adequate and updated legal and administrative framework to enforce the implementation and follow up mechanism of environmental and social impact assessment practice in the development project.

Additionally, effective environmental and social impact assessment monitoring and evaluation conduct by the regulatory bodies and proponent of the project is very important to evaluate the implementation and follow up of environmental and social impact assessment recommendation. Moreover, the effective environmental and social impact assessment monitoring and evaluation mechanism and status has a great role in the effective environmental and social impact assessment implementation and follow up practice. The proponent of the project has the responsibility to implement and follow up based on the obligations imposed on him/her during project approval conditions. This is also another determinant factor of the implementation of environmental and social impact assessment recommendation.

Moreover, the implementation and follow up of environmental and social impact assessment recommendation needs further detailed studies. Recently, the research conducted by Shin et al (2018), on environmental and social impact assessment follow-up for projects in China indicates, they are critically seen the appraise of the implementation and follow up of environmental and social impact assessment follow up and potential to improve the environmental and social impact assessment follow up practice. Their study didn't address the social issues in their study. They used report and framework review as the techniques for data collection. These techniques may not appropriate to collect adequate data. On the other hand, the study conducted on the overview of environmental impact assessment in Ethiopia: gaps and challenges by Mellese & Mesfin (2008), identified the major gaps on environmental impact assessment such as lack of well-structured environmental protection authority, lack of

information exchange and lack of qualified environmental and social impact assessment consultants.

However, as far as my reading and knowledge, the implementation mechanism and status of environmental and social impact assessment monitoring and evaluation, legal and administrative framework for the implementation and follow up of environmental and social impact assessment recommendation and perception of residents towards the implementation and follow up of environmental and social impact assessment recommendation by proponent were not identified by other studies especially, concerning the environmental and social impact assessment practice in Brewery industry in Ethiopia. As a result, this study focused on assessing the implementation mechanism and status of environmental and social impact assessment monitoring and evaluation, studying the adequacy of a legal and administrative framework for the implementation and follow up of environmental and social impact assessment recommendation and analyzing the perception of residents on the implementation and follow up of environmental and social impact assessment recommendation by proponent of Meta Abo Brewery

Therefore, this study attempted to investigate the implementation and follow up of environmental and social impact assessment recommendation in Meta Abo Brewery.

1.3.Objectives of the Study

1.3.1. General Objective

The general objective of this study was to investigate the implementation and follow up of environmental and social impact assessment recommendation in Meta Abo Brewery, Sebeta City, Oromia Special Zone Surrounding Finfinne.

1.3.2. Specific Objectives

The specific objectives of this study were to:

1. Assess the implementation mechanism and status of environmental and social impact assessment monitoring and evaluation,
2. Study the adequacy of legal and administrative framework for the implementation and follow up of environmental and social impact assessment recommendation, and
3. Analyze the perception of residents on the implementation and follow up of environmental and social impact assessment recommendation by proponent of Meta Abo Brewery

1.4. Research Questions

To achieve the objectives of this study, the following major research questions were addressed:

- What are the implementation mechanisms and the status of ESIA monitoring and evaluation in Meta Abo Brewery?
- Are the legal and administrative frameworks adequate for the implementation and follow up of ESIA recommendation in Meta Abo Brewery?
- What is the perception of residents on the implementation and follow up of ESIA recommendation by proponent of Meta Abo Brewery?

1.5. Significance of the Study

This study was primarily conducted for academic purposes. However, the findings of this study have a significant contribution to fill the gaps in the implementation and follow up of environmental and social impact assessment recommendation in development projects especially, in Meta Abo Brewery. It contributes a lot to address the current practice of the implementation and follow up of environmental and social impact assessment recommendation.

It is also helpful to know different concepts about the implementation and follow up of environmental and social impact assessment recommendation. This study will serve as a reference for policymakers, academic purposes, and future researchers on the implementation and follow up of environmental and social impact assessment recommendation related topics to fill knowledge gaps.

1.6. Scope of the Study

Even though the researcher would have been better to investigate the case of more factories, only Meta Abo Brewery in Sebeta City, Oromia Special Zone Surrounding Finfinne is taken as a case study because of the resource and time constraints. As a result, the scope of this study was limited to the implementation and follow up of environmental and social impact assessment recommendation in Meta Abo Brewery. This study is specifically focused on assessing the implementation mechanism and status of environmental and social impact assessment monitoring and evaluation, studying the adequacy of the legal and administrative framework for the implementation and follow up of environmental and social impact assessment recommendation and analyzing the perception of residents on the implementation and follow up of environmental and social impact assessment recommendation by proponent of Meta Abo Brewery.

The sample frames of this study were the Federal Environment, Forest and Climate Change Commission (EFCCC), Oromia Environment, Forest and Climate Change Authority (OEFCCA), Sebeta City Environment, Forest and Climate Change Authority (SCEFCCA), Meta Abo Brewery, Sebeta City Health Office (SCHO), Sebeta City Investment Office (SCIO), Sebeta City Labor and Social Affairs Office (SCLSAO), Sebeta City Administration Office (SCAO) and Gote 01 and 02 of Kebele 05 in Sebeta City. The primary data used in this study covered from February to April 2020.

1.7.Limitation of the Study

The major limitations of this study were the lack of time and finance. Additionally, the lack of adequate secondary data (environmental and social impact assessment monitoring and evaluation reports) was other constraints faced during this study. Even if the above limitations were challenged the results of this study, available time and financial resources were used wisely to achieve the aimed study and came up with good results. This study also used available data and available literature for this study.

1.8.Organization of the Study

This study is organized into five major chapters. Chapter one contains the introduction part which constitutes the background, statement of the problem, general and specific objectives, research question, significance, scope, and limitation of the study. Chapter two contains the review of related literature review, definitions of basic concepts, theories, and empirical literature review. Chapter three covers research methodology and materials. Chapter four contains results and discussions of the study. Chapter five contains conclusions and recommendations of the study.

CHAPTER TWO

2. LITERATURE REVIEW

2.1. Definition of Basic Concepts

Evaluation: In this study context, the ex-post evaluation concerns with the appraisal of policy, plan, or project which has been currently under implementation to evaluate the activities followed particular decision (Jos, Paula & Angus, 2012). It involves the policy-orient assessment of the effectiveness and performance of the implementation and follow up environmental and social impact assessment recommendation.

Follow up: In the context of ESIA, it is defined as the activities conducted on the development projects by the regulatory body or the proponent after the approval of the ESIA to monitor, audit, evaluate, manage and communicate the environmental and social outcomes with comparison to the approval conditions (Jos, Paula & Angus, 2012). A follow-up process is dealing with the implementation of monitoring, auditing, evaluation and management of the project in line with the approved ESIA reports which means the conditions of approval.

Monitoring: The repetitive and continuous observations, measurements, and evaluation of environmental data to follow changes over time and the implementation of proposed development project activities (EPA, 2003). It's the cornerstone of ESIA implementation and follow up used to evaluate the effectiveness of mitigation measures. Angus et al (2001) also defined environmental monitoring as a systematic collection of environmental data through a series of repetitive, observations and measurements to provide information on characteristics and functioning of environmental variables in space and time.

Proponent: is any organization (government, commercial or non-governmental organization) or individual which seeks to commence a particular project. A proponent is any individual, any organ of government if in the public sector or private sector that initiates a project (Proc. No. 299/2002).

2.2. Evolution of ESIA

The historical development shows that the development of ESIA was started in the USA in the late 1960s (Abebe et al, 2017). This was for the target of considering the possible environmental and social impacts prior to a decision being taken on whether or not a proposed development project should be given approval to proceed. Following that, many international agencies such as World Bank and United Nations Environmental Program have involved themselves with ESIA, and they also recommended ESIA as environmental management tool for projects sponsored by them in developing countries (Gizaw, 2011).

After years, ESIA became the legal requirements in many developing countries. As a result, ESIA was introduced in many developing countries from the early 1980s (Tetsuya & Guangwei, 2017). This indicates the recognition of environmental and social impact assessment by African countries.

The international environmental agreements and conference in which Ethiopia is a part of it have their contributions to the establishment of Ethiopian Environmental Protection Organs. The United Nations Conference on the Human Environment (UNCHE) held in Stockholm in 1972, United Nations Conference on the Environment and Development (UNCED) held in Rio in 1992 and the World Earth Summit on Sustainable Development held in 2002 enforce the Ethiopian government to establish environmental institutional arrangements and development of ESIA legal frameworks (Dominik et al, 2010). The implementation of international agreements may sometimes link with the financial aid from developed countries. In addition to that, the agenda of capacity development and linkages for environmental and social impact assessment in Africa formed in 2000 has also contributed to the establishment of ESIA guidelines in Ethiopia.

In Ethiopia, the concept of environment is first stated in the Constitution of the Federal Democratic Republic of Ethiopia (FDRE) in 1995 which is the first environmental legal doctrine of the country (Adugna, 2016). In this constitution, major environmental and development concepts included are the rights to development (article 43), environmental rights (article 44), and environmental objectives (article 92). The Environmental Policy of Ethiopia (EPE) was also adopted in 1997(EPE, 1997). As a result, the federal Environmental Protection Authority (EPA) was also established in 2002, primarily to achieve different environmental objectives by Environmental Protection Organs Establishment proclamation (Proc. No. 295/2002).

The establishment of the Environmental Protection Authority (EPA) in 2002 has the primary role of the development of the ESIA system in Ethiopia. This opens a great opportunity to start the practice of ESIA for different development projects throughout many regions of the country. The first national institution incorporated ESIA into its development plan is the former Ethiopian Valleys Development Authority (Mellese & Mesfin, 2008). The Authority incorporated ESIA to assess the water-related and health impacts primarily to get financial support from international non-governmental organizations. As the development projects become the determinants of economic growth of the country, the impacts of development projects on the environment also became get attention.

The establishment of EPA also overcomes the formulation of the EIA proclamation 299/2002 and environmental pollution prevention proclamation 300/2002. The formulation of these proclamations helps the regulatory body to enforce the implementation of the ESIA process in different development projects. Now in Ethiopia, undertaking ESIA is a precondition for granting a license to operate the major development projects listed by the ‘directive issued to determine projects subject to EIA’ (Directive No. 1/2008). Accordingly, ESIA has been undertaken to identify positive and negative environmental, social, economic, and cultural impacts and put in place an environmental and social management system for each negative impact to minimize the adverse effects likely to result during construction and operation of the project.

The major objective of an environmental and social impact assessment foundation in Ethiopia is to provide decision-makers with adequate information about possible environmental and social effects when deciding the authorization activities (Adugna, 2016). It also aims to manage the impacts of development projects which may affect the environment, society, and other development activities during the implementation of the project.

According to the Ministry of Environment, Forest and Climate Change (2017) the basic principles of environmental and social impact assessment objectives are:

- ❖ Integration of environmental and social concerns at the early stages of the projects,
- ❖ Incorporation of all interested and affected parts at all ESIA process,
- ❖ Focusing on the significant impacts of the projects to avoid, minimize or compensate the adverse effects,
- ❖ All viable options should be considered before going into implementations,
- ❖ Roles and responsibilities of the proponent, consultant, environmental agencies and other stakeholders should be identified,
- ❖ All decision-making process should enhance the environmentally friendly efforts.

Even though the implementation of the basic principles of ESIA objectives in Ethiopia has some weaknesses, particular attention was given for prevention, mitigation and offsetting the significant adverse effects in the ESIA practice.

2.3.Stages of ESIA Process

In Ethiopia, the former EPA formulated the ESIA procedural guideline which contains the major stages of ESIA in 2003. ESIA process is developed and accepted as an essential part of development planning and management to predict environmental and social impacts of any development activity and to provide an opportunity to mitigation against negative impacts and enhance positive impacts (Belay, 2014). The ESIA process involves different major

stages which start from proposal identification to project implementation and follow up (EPA, 2003). This all process stages show through which the project approval passes over before forwarding to implementation and follow up stages. It begins at the designing stage of a project and continues all over the project construction and operation phases. Before developing the project proposal the site selection should be identified.

Screening is the main step in the ESIA process, at which the receipt of application forms for the development proposal, the competent environmental agency determines whether an ESIA is required or not. It is the classification stage to determine the level at which ESIA will be carried out and to make decisions full, preliminary or no ESIA will be carried out. The decision making at the screening stage depends on the sensitivity of the environment, location of the project area, technology used, concerns of public, land use consideration, the scale of environmental and social impacts, and other significant factors (EPA, 2003).

Scoping is the process of identifying the potential negative and positive environmental and social impacts associated with the development projects. The level of an impact assessment will depend on the nature and scale of the development project proposal; its complexity; the sensitivity of the environment and social issues identified during the scoping process (EPA, 2003). An examination of project alternatives is identifying the appropriate alternatives for the proposed development project activities. Impact analysis is also the process of identifying and estimating the environmental, social and economic impacts of development projects.

Impact mitigation and management is the critical component of the ESIA process which aims at avoiding, minimizing and compensating the adverse impacts from the project (EPA, 2003). On the other hand, impact management is the process of translating mitigation measures into appropriate action plans during the implementation phase. Following the ESIA study report, the reviewing process will be made to evaluate the study reports against review guideline, and the decision-making process takes place for the approval or rejection of the project report. If the approval decision was made by the relevant environmental authority, ESIA implementation and follow up activities like monitoring, auditing and evaluation will be carried out. Thus, ESIA follow up is the most important element of the ESIA process which helps to measure the implementation of the project activities after the approval of the project (Ross, Jos & Angus, 2005). It is the process of dealing with the implementation of ESIA of the project concerning the approval conditions and obligations deemed on the proponent of the project.

Melles and Mesfin (2008) state that the effective mechanism of ESIA process has not for the sake of the environment alone, but also for the direct contribution of the sustainability of the development project and on the general sustainability of the country's development. Thus, the ESIA process must follow the effective implementation mechanism throughout its all stages. The overall stages of ESIA have been showed as below figure.

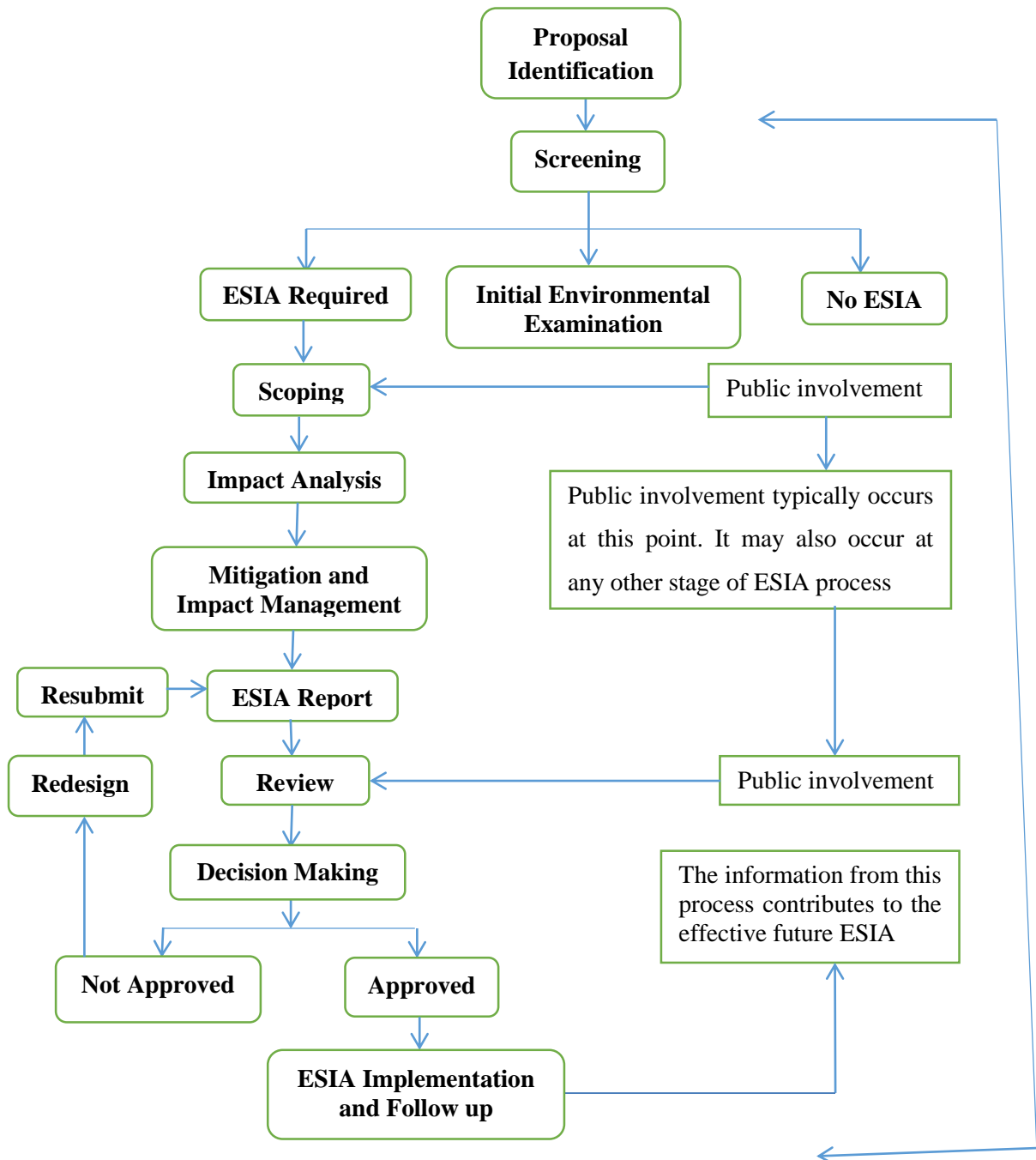


Figure-1: Stages of ESIA Process

Source: Pacifica, F. & Achieng, O., 2007

2.4. Overview of the Implementation and Follow up of ESIA Recommendation

According to Kelvin (2016), the concept of the implementation and follow up of environmental and social impact assessment recommendation includes the activities undertaken after authorization of ESIA to confirm the implementation of approval conditions, to ensure the accuracy of impact forecast, measure the effectiveness of mitigation measures, monitor and evaluate the environmental performance of the development project and disseminate management decisions to stakeholders. It's a mechanism to practice and confirm whether the approval condition and environmental compliance during the project approval is implemented or not to give the decision about the project under implementation. The environmental and social impact assessment implementation and follow up is directly come up with the evolution of environmental and social impact assessment and its implementation (Morrison et al, 2012). This show of the implementation and follow up of environmental and social impact assessment recommendation is the major components of the environmental and social impact assessment process.

On the other hand, according to Shin et al (2018), environmental and social impact assessment follow up is the fundamental action to confirm the practical implementation of ESIA in development projects. Hence, both of the implementation and follow up of environmental and social impact assessment recommendation are the actions that will be conducted after the ESIA project approval. The implementation and follow up of environmental and social impact assessment recommendation activities are partly cover the environmental and social monitoring, auditing, evaluation, post-decision analysis, post-decision management and communicating the outcomes (Kimmo, Anne-Mari & Markku, 2015). In addition to that, it is the systematic action to practice and confirm the implementation of environmental and social impact assessment approval conditions.

The main objectives of environmental and social impact assessment implementation and follow up are to confirm the implementation of the project activities during environmental and social impact assessment report approval, management of unforeseen environmental and social impacts, improve community awareness about the advantage and impacts of development projects, and acquire experience to improve the environmental and social impact assessment practice (Jos et al, 20012). Then, to realize and achieve the objective targeted results; the ESIA implementation strategies are very important.

The monitoring, auditing, evaluation, management, and communication are the environmental and social impact assessment implementation and follow up tools used to ensure the environmental performance and strategies of the development project (Ross, Jos & Angus, 2005). Hence, it's necessary to implement environmental and social impact assessment implementation and follow up tools in development projects for sustainable development. Additionally, effective implementation and follow up of environmental and social impact assessment recommendation has several potential advantages for the future environmental and social improvement as well as for the proponents and associated actors (Robert & Thomas, 2015).

The ESIA implementation and follow up practice has been increasing with the establishment of different development projects in Ethiopia. Hence, the development projects are becoming a special place of rapid industrialization and technology transfer that encourages the manufacturing industries to accelerate economic transformation from agriculture to industrial led development (Tsegai, 2015). This expansion of development projects in different areas of the country will have significant negative environmental and social impacts. This needs effective ESIA implementation and follow-up practice in the development projects to evaluate the commitments made by the proponent during the authorization and to give correction actions and recommendations.

Currently in Ethiopia, the approval of the ESIA study report is issuing by the Federal EFCCC, Regional EFCCA, or delegated sectoral institutions (sectoral Environmental Units) depending on the level and type of the project (Proc. No. 299/2002). As a result, the regulatory body approved the environmental and social impact assessment has the responsibility to follow up on the implementation of the approval conditions and mitigation measures of significant impacts. Environmental and social impact assessment monitoring and evaluations are the major components of the implementation and follow up of environmental and social impact assessment conducted to evaluate the environmental and social impact assessment approval conditions. In addition to that, the environmental and social impact assessment follow up activities that will be conducted by the regulatory body enforces the proponent of the project to implement the approval conditions and manage unpredicted impacts that can lead to legal actions (Brett, 2017). This also indicates the proponent has responsible to implement environmental and social impact assessment approval conditions during all phases of the project.

Moreover, the proponent has to control the day-to-day activities in the project which may affect the environment and social life in and around the projects. However, the effective implementation and follow up of environmental and social impact assessment recommendation will be determined by different determinant factors such as adequacy of legal and administrative framework and effective institutional capacity and cooperation among stakeholders. Those determinants are very important to confirm the objective of ESIA follow up and contribute to the sustainability of development activities.

On the other hand, ESIA Implementation and follow up tools has their roles in its effectiveness. ESIA implementation and follow up tools are the materials helps to achieve the implementation and follow up of ESIA recommendation in development projects. Then, one tool of ESIA implementation and follow up is the input for the others and depends on each other to give decisions about the project under implementation. The basic tools of the implementation and follow up of ESIA recommendations are described as below figure.

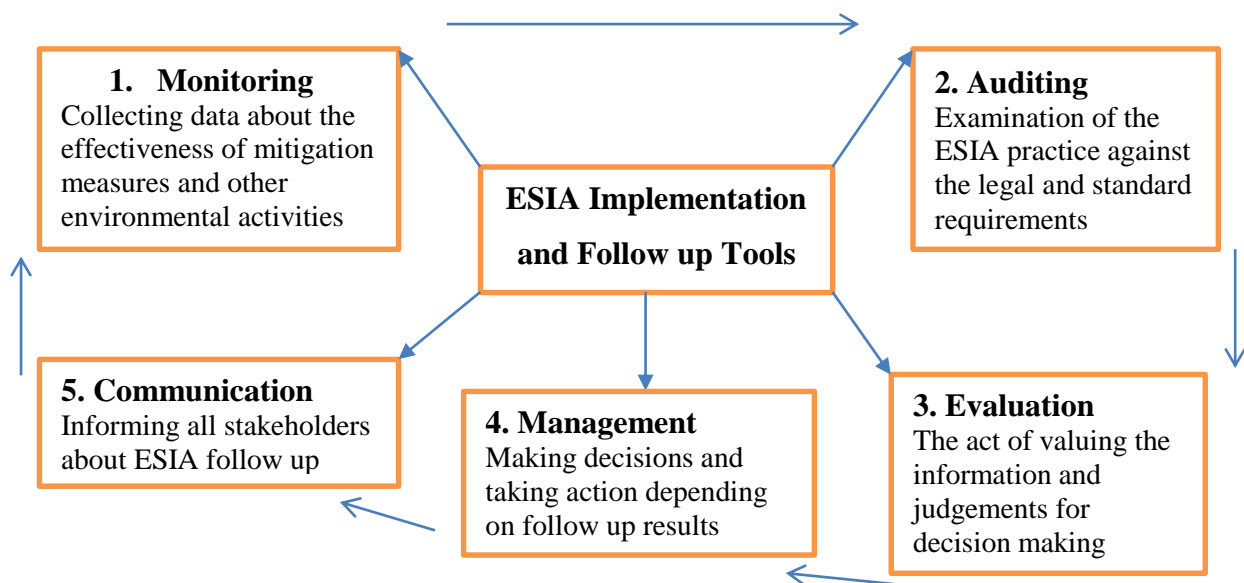


Figure-2: ESIA Implementation and Follow up Tools

Source: Own constructed from literature review, 2020

2.4.1 Mechanism of the Implementation and Follow up of ESIA Recommendation

According to the Hong Kong Environmental Protection Department (2003), the environmental and social impact assessment mechanism is a planning and decision-making tool bridging a project development lifecycle. It is the process that covers the conceptual thinking to the implementation stage of the project. The integration of environmental

concerns into development activities is essential to confirm the sustainable development. As a result, the implementation of environmental and social impact assessment needs the integration of the environmental and social impact assessment mechanism into the development project lifecycle for effective implementation.

The following figure shows how the environmental and social impact assessment process implementation integrates with the project lifecycle.

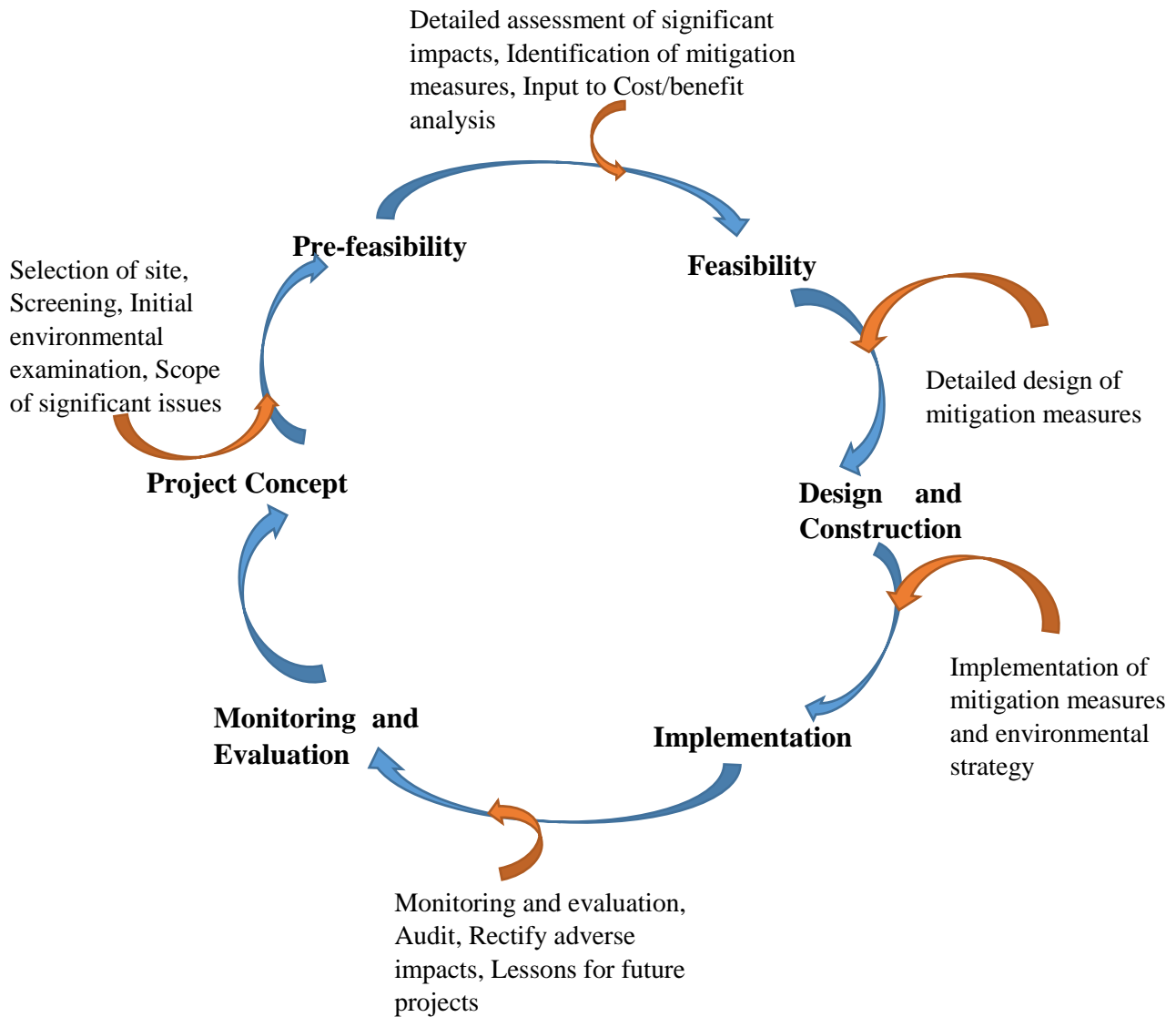


Figure-3: Mechanisms of the Implementation and Follow up of ESIA

Source: Hong Kong Environmental Protection Department 2003, P: 16

In addition to this, most of the proposed implementation mechanisms in the environmental and social impact assessment procedural guidelines for all sectors are relatively similar

(Yonas, 2002). However, the detailed technical implementation mechanism issues should be addressed in each sector environmental and social impact assessment procedural guidelines. Melles and Mesfin (2008) state the effective mechanism of environmental and social impact assessment process has not for the sake of the environment alone, but also for the direct contribution of the sustainability of the development project and on the general sustainability of the country's development. Thus, the ESIA process must be follow the effective implementation mechanism.

The Tumwine (2010) suggested the number of ESIA implementation strategies of mitigation measures depending on the type of impacts and project lifecycle. These strategies are; developing environmentally and socially better alternatives to the proposal, making changes to the project planning and design, carrying out impact monitoring, auditing, and management, compensating for impacts. Addressing the unforeseen adverse impacts of development projects that are not stated in the study document is also an important mechanism to implement environmental and social impact assessment.

2.4.2. ESIA Monitoring

The environmental and social impact assessment monitoring is one of the ESIA implementation and follow up tools that help to evaluate the effectiveness of mitigation measures during the implementation of the proposed development project. According to UNEP (2002), the primary aim of monitoring is to access information that aids impact mitigation and management and to achieve a better understanding of cause-effect relationships, and to advance ESIA expectations and mitigation measure strategies. This shows the essence of ESIA monitoring activities to evaluate and improve the implementation of project activities. It also helps to avoid the environmental effect through observe, measure, evaluate, and analyze the environmental parameters.

In addition to providing information that facilitates the impact management system, ESIA monitoring makes improvements to environmental and social impact assessment practice for the future (Hussein, Ron & Barry, 2004). Especially, effective environmental and social impact assessment monitoring is very crucial to make the decisions about environmental quality and to know the implementation of approval conditions. Moreover, the improvement of mitigation measures to minimize the impacts of the project will depend on the results of the monitoring activities. The objective of conducting environmental and social monitoring is to ensure the efficiency and quality of the ESIA processes, to make better the environmental

and social management performance and to give the chance to report the results on safeguards and impacts and anticipated mitigation measures implementation.

There are different types of environmental and social monitoring activities that will be conducted at different phases of development projects (UNEP, 2002, p: 407).

***“Baseline Monitoring:** The measurement of environmental parameters during a pre-project period to determine the range of variation of the system and establish reference points against which changes can be measured.*

***Effect Monitoring:** The measurement of environmental parameters during project construction and implementation to identify changes to the project.*

***Compliance Monitoring:** The periodic or continuous measurement of environmental parameters to check that regulatory requirements and standards are being met”.*

The environmental and social impacts of major projects will be monitored during construction and operational start-up. Environmental and social monitoring activities will be achieved properly at the right time to get appropriate information about the development project aimed to be monitored, as well as through its process steps to overcome good results. Environmental and social monitoring results are necessary for informing decision making processes essential to the management of the environment (Daniele, 2017). The precision of the monitoring results are very important for decision making.

2.4.3. ESIA Evaluation

The environmental and social impact assessment evaluation depends on the ESIA monitoring results of the development project in regards to environmental standards, pre-project forecasting, and expectations (Kelvin, 2016). It is the process of analyzing the information obtained through the monitoring process for decision making. Additionally, ESIA evaluation is the assessment of collected data about environmental parameters through monitoring to determine the extent to which they are achieved according to stated standards and contributing to the decision making.

In addition to the effectiveness and performance review aspects of ESIA evaluation, the impact and mitigation data from ESIA monitoring and auditing are very important for post-project evaluation (UNEP, 2002). The main objectives of conducting environmental and social impact assessment evaluation may be to support the decision-making process about the development project under implementation and to confirm the implementation of environmental standards and other approval conditions by the proponent of the project.

2.5.ESIA Legal and Administrative Framework in Ethiopia

2.5.1. ESIA Legal Framework

In the past decades, the government of Ethiopia had made certain efforts towards environmental legislation in response to environmental and social impacts caused by unsustainable economic development practices. As a result, the Constitution and Environmental Policy of the Federal Democratic Republic of Ethiopia is the cornerstone document for other environmental legislation in the country (Mellese & Mesfin, 2008). Environmental Policy without adequate and appropriate legislation will be ineffective as, in turn; will be legislation without continuous enforcement mechanism. Current environmental policy requires an integrated approach to environmental management and the need to work towards the realization of the goal of sustainable development.

Ethiopia has designed several environmental legislative frameworks that help to improve environmental problems related to economic development activities. Among the legal frameworks, the constitution of the country, environmental policy, and some of the environmental and social impact assessment related proclamations, technical guideline and environmental standards of Ethiopia are discussed as follows;

Constitutional and Policy Framework

The 1995 Constitution of the Federal Democratic Republic of Ethiopia (FDRE) has served as the base of the formulation of the Environmental Policy of Ethiopia (EPE). The constitution comes up with the environment and development concerns in articles 43, 44, and 92 of the constitution, and each article addressed the right to developments, environmental rights, and environmental objectives respectively. Then, the Environmental policy of Ethiopia is adopted in 1997 and environmental impact assessment is one of the ten (10) cross-sectoral environment policies addressed in this document. As stated in this policy document, the impacts of development actions on biological, physical, socio-economic, political, and cultural conditions should take into account.

The policy also addressed about the incorporation of ‘mitigation measures’ for environmental and social management of the development projects, ‘public consultation’ as an essential component, ‘environmental monitoring and auditing’, the essence of environmental and social impact assessment technical guidelines for managing the environmental problems in the country (EPE, 1997). This document is used as the basis for other legal documents and technical guidelines for different activities of environmental protection in the country.

Besides, the environmental monitoring and auditing activities conducted by regulatory bodies, legally mandatory requirements, and the significance of the institutional framework are the issues about environmental and social impact assessment addressed in this policy.

Environmental Impact Assessment Proclamation No. 299/2002

This proclamation is the first legal framework adopted to address the pre-requirement of approval conditions for projects that require ESIA before implementation. The environmental impact assessment proclamation (Proc. No. 299/2002) gives the responsibility for the relevant federal or regional environmental institution to monitor and evaluate the implementation of ESIA regarding to the project approval conditions and environmental compliance.

According to this proclamation 299/2002, ‘the regulatory body shall order the proponent of the project when he/she fails the authorization conditions and environmental compliance’. This may go up to the ‘cancellation of the license of ESIA and paying compensation’. In addition to that, this proclamation helps to enforce the proponent of the project for the effective implementation and follow up of ESIA and other activities which affect the environment in the country.

Environmental Impact Assessment Procedural Guideline 1/2003

This document is the first series of the procedural guideline that contains legal and policy context in the country, core values and basic objectives, guiding principles, basic requirements, environmental and social impact assessment process and schedule of projects requiring ESIA (EPA, 2003). The basic objective of this guideline is to ensure the implementation of ESIA by addressing different legal and technical activities during the implementation of project activities. Moreover, the roles and responsibilities of the Environmental Authority in the environmental and social impact assessment practice, proponent, and other stakeholder’s activities are addressed.

The essences of systematic implementation and follow up of environmental and social impact assessment recommendation activities are also stated to confirm the unforeseen environmental and social impacts are maintained within the forecasted levels. In addition to the environmental follow up conducted by the relevant environmental authority, the internal monitoring and auditing that will be required to be conducted by the proponent of the project are one of the activities stated in this proclamation.

Environmental Pollution Control Proclamation No. 300/2002

This proclamation is also one of the basic legal documents which are essential for the effective implementation and administration of environmental and social impact assessment. This proclamation states that ‘eliminate or, when not possible to mitigate pollution as an undesirable consequence of development activities’ (Proc. No. 300/2002). This proclamation mainly focused on the right of each citizen to have a healthy environment, as well as on the obligation to protect the environment of the country and its primary objective is to provide the basis from which the relevant ambient environmental standard applicable to Ethiopia can be developed, and to make violation of these standards an applicable act (Proc. No. 300/2002). This proclamation also states the ‘polluter pays principle’ will be applied to all persons who pollute the environment during the implementation of the project.

Also, this proclamation addresses the powers of environmental inspectors assigned by federal or regional relevant environment sectors have the right to ‘ensure the compliance with environmental standards and other requirements’. Generally, this proclamation helps to apply the environmental impact assessment implementation and follow up tools especially, environmental monitoring and evaluation on the projects to control the environmental pollution which may be released to the environment without treatment.

Environmental Pollution Standards, 2003

The availability of environmental standards at place facilitates the environmental monitoring in different development projects because without environmental standards it’s difficult to give decisions about environmental monitoring results. As a result, the draft of environmental standards for specific industrial sectors had been prepared by the former EPA of Ethiopia in 2003. Even though the EPA prepared the environmental standards draft for several sectors, the Environmental Council which is the higher officials mandated with approving the environmental guidelines, standards selectively accepted the industrial emissions standards for twelve sectors (EPA, 2012).

Depending on the environmental pollution control proclamation 300/2002 industrial emission and ambient environment standards were prepared (Meskir, 2008). The industrial emission standards are “setting the maximum possible pollutant emission into the atmosphere and the extent to which individual sector must reduce their emissions”. On the other hand, the ambient environmental standards are “setting criteria for evaluating the air pollution to which

humans and the environment are exposed the impact based values recommended by World Health Organization compliance with ambient air quality standards”.

The brewery industry is one of the operating industries in Ethiopia. The brewery industry has the specified values of water and air pollution allowed to release to the environment. The limit values of pollution discharges to water and emissions released to the air during the operation were specified as stated on the standards for industrial pollution control in Ethiopia. However, this may not enough to monitor and evaluate the environmental impacts of the development projects as different manufacturing industries are become increasing in the country.

2.5.2. ESIA Administrative Framework

The Government of Ethiopia is constitutionally organized into federal, regional, city administration and woreda structure which contains different administrative institutions at each level to deliver governmental objectives. The environmental protection organ establishment proclamation permits the establishment of federal Environment, Forest and Climate Change Commission, environmental protection council, regional environmental authorities, and sectoral environmental units mandated for the different environmental matters including environmental and social impact assessment (Proc. No. 295/2002). Thus, the establishment of an institutional framework from federal to woreda level was made to implement the environmental policy of the country and other legal frameworks. This implies the allocation of duties and responsibilities in administering and implementing the environmental policy, laws, and standards in the country.

In Ethiopia, the multiple functions and responsibilities characterized in the environmental and social impact assessment procedural guideline require a clear definition of mandates and sharing of roles and tasks among different stakeholders. Hence, the Federal Environment, Forest and Climate Change Commission of Ethiopia are mandated by a proclamation provided for the establishment of Environmental Protection Organs (Proc. No.295/2002), a proclamation that provides the definitions of powers and duties of executive organs of the Federal Democratic Republic of Ethiopia (Proc. No. 916/2015), EIA Proclamation (Proc. No. 299/200) and other relevant laws to run and facilitate the implementation and administration of ESIA in Ethiopia (EPA, 2003). In addition to that, the regional Environment, Forest and Climate Change Authority have the responsibility to implement and follow up the environmental and social impact assessment in the region depending on the mandates given for the regional governments by legal.

Since the formulation of the environmental impact assessment proclamation 299/2002 in 2002, the government of Ethiopia addressed the mechanisms of the implementation of environmental and social impact assessment at the federal and regional levels in the country. Both the federal and regional relevant Environmental Authority has the responsibility to give the environmental clearance and follow up the implementation of environmental and social impact. If the approval conditions of environmental and social impact assessment of the project will be made at the federal level, the Federal EFCCC has the responsibility to monitor and evaluate its implementation; whereas the approval of environmental and social impact assessment will be made at the regional level, the regional Environment, Forest and Climate Change Authority has also the responsibility to monitor and evaluate.

Furthermore, the proclamation No. 295/2002 acknowledged the establishment of the Environmental Protection Council, Federal Environment, Forest and Climate Change Commission, Regional Environment, Forest and Climate Change Authority, and Sectoral Environmental Units (delegated institutions) with their respective duties and responsibilities toward environmental and social impact assessment administration.

Federal Environment, Forest and Climate Change Commission

The federal Environmental Protection Authority (currently known as the Federal Environment, Forest and Climate Change Commission) is one of the federal institutions in Ethiopia established intending to ‘formulate policies, laws, and standards, which foster social and economic development in a manner that enhance the welfare of humans and safety of the environment sustainable to spearhead in ensuring the effectiveness of the process of their implementation’ (Proc. No. 295/2002). They have the responsibility to formulate and revise the environmental policy, EIA guideline, environmental standards, directives, and other relevant documents at the federal level.

Additionally, according to environmental protection organs establishment (Proc. 295/2002), the Federal Environmental Authority (currently EFCCC) has the responsibility to ‘prepare, review and update the environmental policy, strategies, and laws in consultation with the competent agencies, other concerned organs and the public at large and upon approval conditions, monitor and enforce their implementation. This indicates the significance of updating the legal and administrative framework which supports the enforcement of ESIA implementation and follow-up in the development project. Moreover, there is no effective legal framework that supports the legal actions that should be taken by the regulatory body on

any proponent or owner who violates the environmental and social impact assessment approval conditions and other relevant legal frameworks. ‘Any person who violates the provision of proclamation 299/2002 or any other relevant law or directive commits an offense and shall be liable accordingly (Proc. 299/2002). This shows the proclamation didn’t specifically identify the illegal conditions and their respective penalty imposed on the owners of the project.

The Environment, Forest and Climate Change Commission has the responsibility to formulate the environmental and social impact assessment guidelines and other legal frameworks, review and give decisions on environmental and social impact assessment report and follow up its implementation for projects, that are subjected to federal licensing, proposed activities subjects to execution at the federal level and likely to have trans-regional impacts (EPA, 2003). The industrial parks development projects such as Hawassa, Adama, Jimma, Mekelle, Bahirdar, Dire Dawa and Bole Lemi industrial park which have been implementing in different areas of the country by the government and other private industrial parks are the major examples of projects subjects to the federal licensing agency due to their potential environmental, social and economic impacts.

On the other hand, as stated on the proclamation of the definition of powers and duties of the Executive Organs of the FDRE, the Environment, Forest and Climate Change Commission shall have the duties to ‘establish a system for evaluating the impacts of implementation of investment projects on environment and decision making before approval’ conditions (Proc. No. 916/2015). Moreover, the federal EFCCC and regional Environmental Authority has the responsibility to closely supervise, monitor, audit, evaluate, manage and communicate the environmental and social impact assessment implementation-related activities in the development projects.

Environmental Protection Council

This council was established by Environmental Protection Organs Establishment proclamation (No. 295/2002) with the main responsibilities “review proposed environmental policies, strategies and laws, and issue recommendations to the government, evaluate and provide appropriate advice on the implementation of the environmental policy of Ethiopia, review and approve directives, guidelines and environmental standards prepared by the federal Environment, Forest and Climate Change Commission”. This council review and evaluate the environmental policy and other relevant frameworks for further

recommendations, and the integration of environmental concerns into development activities. The Environmental Protection Council contains relevant members to represent the Prime Minister, the federal government, regional government, local environmental non-governmental organizations, and other civic societies.

Regional Environment, Forest and Climate Change Authority

According to EIA procedural guideline (EPA, 2003), Regional Environmental Agencies (currently known as Environment, Forest and Climate Change Authority) has the responsibility to “adopt and customize federal level environmental and social impact assessment guideline and systems in line with their respective local realities, administer, oversee, pass decisions on environmental and social impact assessment of projects; subjects to licensing and execution by regional authority and project likely to have regional impacts”. Meta Abo Brewery project is one of the regional projects in which its approval of environmental and social impact assessment was made at the Sebeta City administration level by SCEFCCA. Then, the ESIA follow up practice will be conducted by SCEFCCA to evaluate the environmental compliance with the obligations imposed on the proponent during the environmental and social impact assessment authorization (Proc. No. 299/2002). The proponent of the project will also hire the environmentalists and establish the environmental unit which monitors and evaluate the day-to-day activities of the project. Additionally, the project proponent has the obligation to implement the environmental and social impact assessment approval conditions and other mandatory requirements (Proc. No. 299/2002). This shows the project proponent has the responsibility to protect the environmental and social impacts which may arise from the project activities.

Sectoral Environmental Units

Every delegated sectoral institution has the responsibility to establish its sectoral environmental units to coordinate and follow up on the implementation of environmental protection activities. As defined under article 14 of proclamation No. 295/2002, ‘every competent agency shall establish or designate environmental unit that shall be responsible for the coordination and follow up, so that the activities of the competent agency are in harmony with this proclamation and other environmental protection requirements’. They are responsible to execute the entire mandate and responsibilities delegated by EFCCC on the

base of coordinated but differentiated as provided by Proclamation No. 295/2002 and other regulation and directive.

The delegated institutions by Environment, Forest and Climate Change Commission to coordinate and follow up the environmental protection activities such as environmental and social impact assessment are Ministry of Water, Irrigation and Energy, Ministry of Mines and Petroleum, Ministry of Agriculture, Ministry of Transport, Ministry of Trade and Industry, Ministry of Urban Development and Construction. Currently, those institutions are established the Environmental Units and review and decided on environmental and social impact assessment study. They are also follow-up the implementation of environmental and social impact assessment approved by their institution and working in cooperation with other institutions to realize the environmental objectives.

2.6.Responsibility of the Proponent towards the Implementation and Follow up of ESIA Recommendation

Proponent is the private companies or governmental organizations that develop a project (i.e. the developer of the project). The primary responsibility of the project proponent is to appoint an independent multi-disciplinary group of consultants, who will act on the proponent's behalf in the ESIA process (EPA, 2003). The proponent must confirm that the consultant has experienced expertise in environmental and social impact assessment, the ability to succeed in the required participation process, the ability to produce good reports, a good working knowledge of ESIA and management policies, legislation, guidelines and standards.

Project management and implementing the mitigation measures are normally the responsibility of proponent in the ESIA process; they are often expected to perform most follow-up activities on the project (Angus & Jos, 2004). The day-to-day activities of project environmental and social management should be carried out by the proponent as first-party follow-up. On the other hand, the project developers are responsible for implementing the approval conditions of the project through monitoring and auditing, taking corrective measures, and verify the accuracy of impact predictions. Conducting regular internal monitoring during the implementation and operation of the project to evaluate the environmental performance of the project is also one of the major responsibilities of the project proponent.

The ESIA report of EFCCC of Ethiopia, the environmental clearance of the ESIA report is issuing for the project proponent with different obligations (EFCCC, 2019). Accordingly, the

project proponent has to; regularly monitor the environmental performance as specified in the ESMP, address any unforeseen adverse effects of the project that is not stated on the environmental and social impact assessment study report and establish environmental unit and report environmental and social impact assessment monitoring quarterly for concerned bodies. In addition to this, the proponent has the responsibility to complying with the requirements of the ESIA process and approval conditions during project implementation. They are also responsible for all associated costs incurred when following the ESIA process. They must ensure that adequate participation of the Competent Agency and interested and affected parties have been carried out. On completion of the ESIA, it will be the proponent's responsibility to ensure that the conditions of approval are carried out (including monitoring and evaluation).

According to EIA procedural guideline (EPA, 2003), the proponent of the project has the following main responsibilities during environmental and social impact assessment implementation and follow up in the development project;

- Implement the environmental and social management plan (including the mitigation measures, monitoring and evaluation measures and work with associated institutional and human resources),
- Establish environmental units to monitor and evaluate, and report the environmental and social performance of the project for concerned regulatory bodies,
- Ensure the terms and conditions of authorization and work in partnership and cooperation with all responsible parties,
- Involve all interested and affected parties in project implementation and follow up for future environmental improvements,
- Aware of the communities about positive and negative environmental and social impacts of the project for the acceptability and sustainability of the project,
- Ensure the positive effects are optimized and strive to promote conservation-based development and work with objectives of continuous improvement,
- Report on a regular bases about its unforeseen environmental and social effects,
- Establish the database and network with all concerned parties.

The Authority shall write the warning letter addressing corrective actions to be taken for the proponent who fails to implement the authorization conditions and obligations imposed upon him/her (Proc. 176/2012). When the proponent is not committed to take corrective measures

in a given time, the penalty will be imposed on him/her for compensation of a damaged environment. This all indicates the responsibility proponent for the implementation and follow up of environmental and social impact assessment recommendation in Meta Abo Brewery.

Concerning environmental and social impact assessment implementation and follow up, the Ethiopian environmental impact assessment proclamation (Proc. No. 299/2002, p-1955-1956) stated the duties of the proponent as below;

“When implementing his/her project, a proponent shall fulfill the terms and conditions of authorization and when the proponent fails to implement the authorized project in compliance with the commitments he/she entered into or obligations imposed upon him/her, the Authority or the relevant regional environmental agency may order him to undertake specified rectification measure”.

If the proponent fails to implement the environmental and social impact assessment authorization conditions, the penalties may go up to the cancellation of the issued authorization license (Dejene, 2012). Generally, the effective implementation of the duties and responsibilities expected from the project proponent at all stages of the environmental and social impact assessment process. Especially, the effective implementation of proponent responsibilities during the implementation phase of the project has an additional contribution to effective environmental and social impact assessment implementation and follow-up mechanisms. Generally, the implementation of the responsibility of the proponent for effective implementation and follow up of environmental and social impact assessment recommendation is very crucial. Even if the regulatory bodies enforce the proponent for effective ESIA implementation and follow up, it's impossible to bring good results without the implementation of the responsibilities expect from proponent of the project.

Moreover, according to the Oromia Regional State Environmental Impact Assessment Proclamation (Proc. 176/2012), the implementation of ESIA shall be monitored and evaluated by the regional environmental authority to assess its compliance with all commitments made by and obligations imposed on the proponent during approval conditions of the project. The proponent have the responsibility to monitor and evaluate the implementation of the ESIA system of development project depending on the scheduled time for monitoring and evaluation in environmental and social impact assessment study report of Meta Abo Brewery.

2.7. Empirical Literature Review

2.7.1. ESIA Implementation and Follow up Practice in Developed and Developing Countries

According to the Glasson et al (2005), the developed countries with longer experience and more advanced in environmental and social impact assessment practices tend to include standards set for environmental and social impact assessment and implement and follow up its recommendations, whereas developing countries often fail to implement and follow up the environmental and social impact assessment recommendation. The United States of America is the country with the longest experience of environmental and social impact assessment practice. Additionally, some studies identified that environmental and social impact assessment procedures are considered strongly in Canada, Australia, Netherlands and New Zealand, where there is a strong track record of public participation, meaningful consideration of alternatives, consideration of significant impacts and implementation and follow up of environmental and social impact assessment recommendations (Jennifer, 2008). However, in many developing countries in Africa the environmental and social impact assessment is consistently applied to development proposals with the omission of many procedural activities.

As a result, the review summary of the comparison of environmental and social impact assessment implementation and follow up practice in developed countries (experienced) and developing countries were showed as the below table.

Table 1: Comparison of ESIA Implementation and Follow up Practice in Developed and Developing Countries

Developed Countries (USA, Australia, Netherlands and New Zealand)	Developing Countries (Nigeria, Uganda and Kenya)
Independent environmental authority for environmental and social impact assessment implementation and follow up at all government structures	Lack of independent environmental authority for ESIA implementation and follow up especially, at the bottom of government structures
Effective institutional capacity and cooperation among concerns bodies	Lack of institutional capacity and cooperation's
Direct formal approval of ESIA study for its implementation and follow up	Lacks formal approval conditions and implementation and follow up activities
Adequate and updated legal framework for	Lack of adequate and updated legal

ESIA implementation and follow up enforcement	framework for ESIA implementation and follow up enforcement
Incorporation of the affected and interested parties views in ESIA process	Lack of incorporation of the affected and interested parties views in ESIA process
Informed decision making process	Lack of effective decision making process
The ESIA implementation process actively related to project cycle activities	The implementation process poorly related to project cycle activities
Appropriate ESIA follow up activities such as monitoring, evaluation, auditing, management and communication	Has a no existent or lack of surveillance and enforcement of terms and conditions, monitoring and evaluation, etc.
Sufficient mitigation measures for environmental and social impacts	Insufficiently mitigates environmental and social impacts and loses credibility
The lessons experienced during ESIA implementation and follow up are fed back into policy, institutions and project design	Lack of environmental and social impact assessment data management and forwarding for future improvements

Source: Researcher's Summary of Related Studies Review

Even though many developed countries are implementing environmental and social impact assessment procedures, both developed and developing countries have continued to improve, harmonize and increase the consistency of environmental and social impact assessment implementation and follow up practice. The experiences from developing countries were very important to improve environmental and social impact assessment implementation and follow up practice in Ethiopia.

2.7.2. ESIA Implementation and Follow up Practice in Ethiopia

In Ethiopia, many development projects are getting priority attention to achieve the sustainable development goals of the country. It has a critical role in encouraging the economic transformation by attracting foreign and domestic investments, promoting technological learning, and creating the job opportunities (Alebel et al, 2017). The development of different projects can be used to realize the transformation of agricultural led development to industrial led development.

As a result, the government of Ethiopia gives attention to the expansions of different development projects especially focusing on the agricultural product industries. These expansions of development projects have both positive and negative environmental, social,

economic, cultural impacts. The environmental, social, economic, and cultural impacts of the development projects may vary depending on the level of projects because of its various manufacturing activities. This needs effective environmental and social impact assessment implementation and follow up practice in development projects.

The significance of environmental and social impact assessment implementation and follow up practice is recognized at all levels of government structures in Ethiopia (Abebe et al, 2007). This shows the presence of structural arrangements established for environmental and social impact assessment implementation and follow up. However, environmental and social impact assessment implementation and follow up needs additional attention after the approval of the project because it's relatively ignored from the other environmental and social impact assessment process when compared to the others (UNEP, 2002). The environmental and social impact assessment recommendation activities implementation and follow up includes the practice of environmental and social impact assessment implementation and follow up tools to evaluate the effectiveness of mitigation measures, standards, regulations in the development projects.

Currently, many environmental sectors from federal to local levels and other delegated institutions are conducting environmental and social impact assessment follow up depending on the mandates given by legislation. The environmental and social impact assessment implementation and follow up of trans-regional mega projects such as industrial park development which approved at the federal level has been conducting by the Federal Environment, Forest and Climate Change Commission (Proc. No. 299/2002). However, the implementation of environmental and social impact assessment of many development projects is followed by the regional governments, for those its approval was made at region and below the regional level.

Concerning to the environmental and social impact assessment of Meta Abo Brewery, the approval was made at the Sebeta city level by Sebeta City Environment, Forest and Climate Change Authority in 2014. Hence, the environmental and social impact assessment follow up practice in Meta Abo Brewery has been conducting by Sebeta City Environment, Forest and Climate Change Authority to measure the implementation of environmental and social impact assessment mitigation measures and other recommended activities in the development project. Sometimes the Oromia National Regional State Environment, Forest and Climate Change Authority have been conducting environmental and social impact assessment follow up in Meta Abo Brewery.

2.8. Conceptual Framework of the Study

According to the related literature reviewed concerning the implementation and follow up of environmental and social impact assessment recommendation; the implementation mechanism and status of ESIA monitoring and evaluation are very important for the implementation and follow up of ESIA recommendation. The successful implementation and follow up of ESIA recommendations depends on the adequate legal and administrative frameworks for implementation and follow up of environmental and social impact assessment in development projects. Additionally, the perception of residents on the implementation and follow up of environmental and social impact assessment by proponent of the project has a great role in the implementation and follow up of ESIA recommendation.

Therefore, based on the concepts of the implementation and follow up of ESIA recommendation and the evidence from the related literature review, the conceptual framework of this study was conceptualized as the figure below. This conceptual framework shows the contributions different factors for the implementation and follow-up of ESIA recommendation and how the data of this study were collected from different sources.

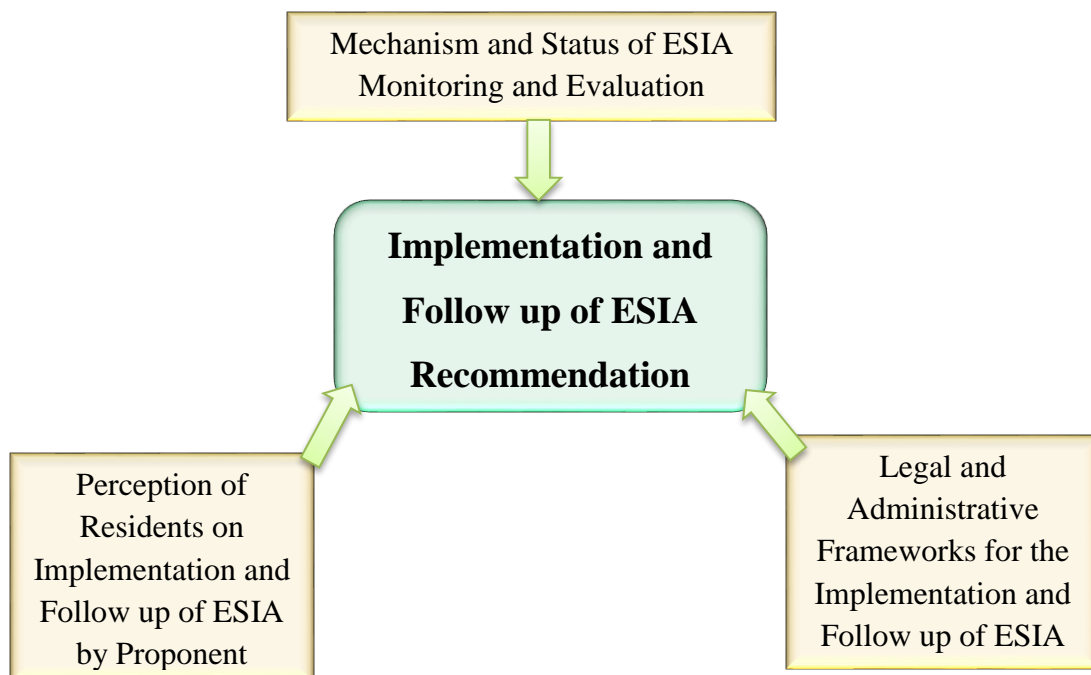


Figure-4: The Conceptual Framework of the Study

Source: Own Constructed from Related Literature Review, 2020

CHAPTER THREE

3. RESEARCH METHODOLOGY

3.1. Description of the Study Area

Meta Abo Brewery was established in 1963 by the Ethiopian Government with the starting capital base of 2 million birr (Diago, 2014). After many years, Diageo PLC, the world's leading premium drinks business, has been completed the acquisition of the Meta Abo Brewery in January 2012. The company board approved the implementation of project Walia intending to expand the capacity of Meta Abo Brewery to increase the quality and quantity of the beer industry. This brewery company is currently under the production of different alcoholic and non-alcoholic beverages.

Location

The study was conducted on the Meta Abo Brewery located in Sebeta City in Oromia Special zone surrounding Finfinne, 27 kilometers from Addis Ababa. The specific location is in kebele 05 of the city administration and found at 1 kilometer distance from the Addis Ababa to Jimma road at the right side. Meta Abo Brewery land area coverage is 35 hectares.

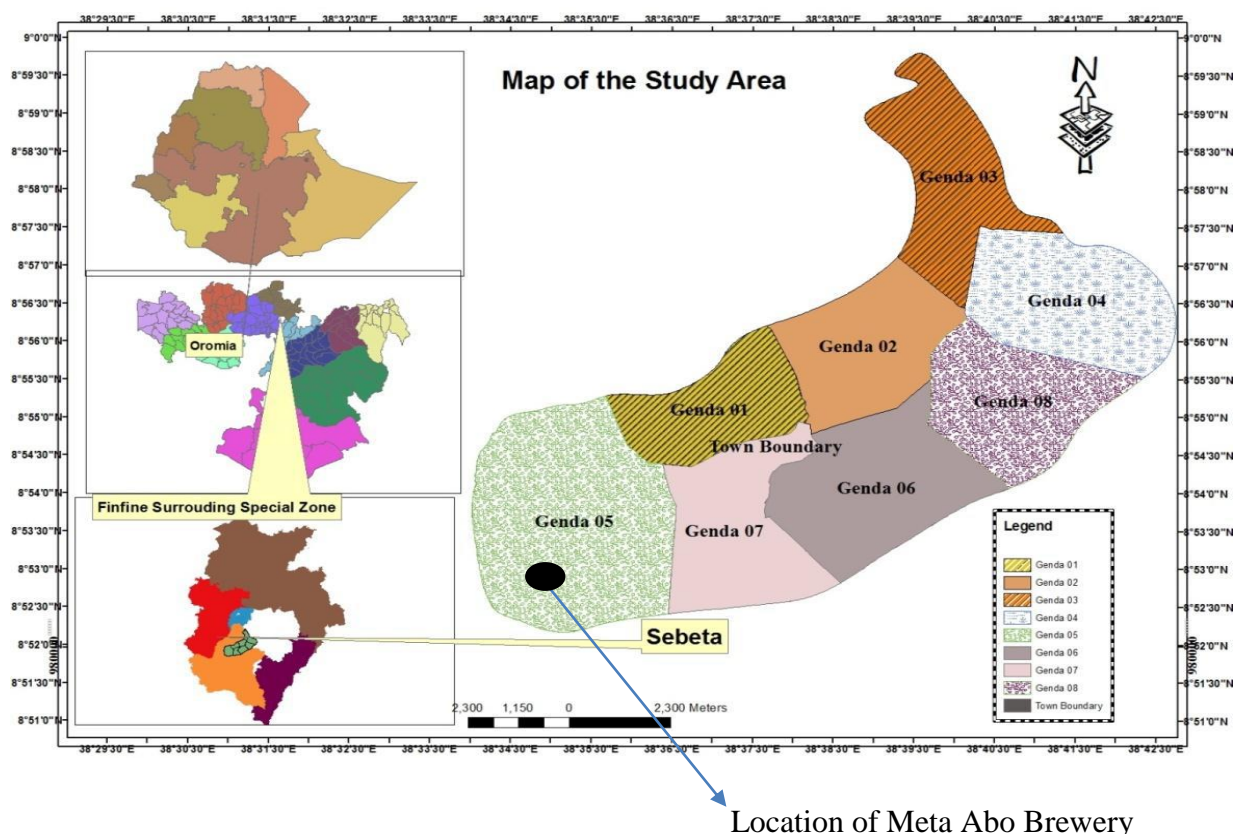


Figure-5: Map of the Study Area

Source: Meta Abo Brewery ESIA Study Report (2014)

Topography

The topography of the project area, including Meta Abo Brewery, is dominated by mountainous features and rolling hills. Areas of the Northern and Eastern part of the brewery are dominated by steep slopes which form part of Wechecha Mountain. The Southern and Western parts of the factory are dominated by relatively flatter features and the terrain becomes even flatter when going away from the mountain. Following the favorable terrain conditions, areas of west and south of the brewery have a more concentrated settlement pattern which forms part of the Sebeta City.

Climate

The climatic conditions of the Sebeta City area can be classified as a subtropical highland climate. The average annual rainfall is 819mm and months with the highest and lowest rainfall are August and January respectively. There are two seasons wet season between July and September, and the dry season starts from October to June. The maximum and minimum average annual temperature is also 23.3% and 8% respectively (Diageo, 2014). March, April, and May are the warmest months, while November, December, and January are the coldest months of Sebeta City.

3.2. Research Design

Research design is the general master plan of how the study was achieved in answering fundamental research questions and specific objectives. The selection of research design was guided by the research questions and objectives, the extent of existing knowledge, the amount of time and resources available, as well as the logical foundations of the researcher (Saunders, Lewis & Thorn, 2009).

To achieve the objective of this study, descriptive research design was selected to collect data about the implementation and follow up of environmental and social impact assessment recommendation in the case of Meta Abo Brewery. This research design is very important to obtain the current data concerning the conditions in the situation. It can generate answers to the questions such as what, how, and when as well as where questions to describe the characteristics and phenomenon.

On the other hand, the descriptive research design associates with both qualitative and quantitative research design. As a result, the qualitative and quantitative research design approaches were employed to collect appropriate data from primary and secondary sources.

The qualitative research design was used to provide in-depth information about the problem whereas quantitative research design was enhanced to find the empirical evidence about the study. The combination of both qualitative and quantitative research methods provide a more comprehensive acceptance of research data than a single research method (Creswell, 2014). In addition to this, using both research design approaches were used to increase the reliability and validity of the study.

3.3.Type and Sources of Data

The primary and secondary data sources were used for this study about the environmental and social impact assessment implementation and follow up in Meta Abo Brewery in Sebeta City. The primary data was entirely collected from the selected respondents of Federal Environment, Forest and Climate Change Commission, Oromia Environment, Forest and Climate Change Authority, sebeta City Environment, Forest and Climate Change Authority, Meta Abo Brewery (MAB), Sebeta City Health Office (SCHO), Sebeta City Investment Office (SCIO), Sebeta City Labor and Social Affairs Office (SCLSAO), Sebeta City Administration Office (SCAO) and Gote 01 and 02 of Kebele 05 in Sebeta City. Those sources were selected because they were expected by the researcher to allocate adequate and appropriate information about this study.

Additionally, the secondary data sources were also collected from Sebeta City Environment, Forest and Climate Change Authority annual and monthly reports, and Meta Abo Brewery environmental and social impact assessment study report, annual and monthly reports to support the primary data sources.

3.4.Population and Sampling Techniques

Both purposive and random sampling techniques were used to decrease the sampling error in this study. Even though the lack of effective environmental and social impact assessment implementation and follow up is present in different development projects in the country, Meta Abo Brewery in Sebeta City was purposively selected due to different factors. The lack of time and resources were the major factors. Furthermore, Meta Abo Brewery has an ESIA study conducted during its expansion in 2014. Due to these reasons, Meta Abo Brewery was selected purposely to study ESIA implementation and follow up practice.

To select the sample frame of this study, purposive sampling technique was employed. Then, Federal Environment, Forest and Climate Change Commission, Oromia Environment, Forest and Climate Change Authority, Sebeta City Environment, Forest and Climate Change

Authority, Meta Abo Brewery, Health Office, Investment Office, Labor and Social Affairs Office, Administrative Office of Sebeta City and Gote 01 and 02 of Kebele 05 in Sebeta City were selected purposely as the sample frame of this study, because they have a direct relationship to this study to give reliable data about the study. Especially, Gote 01 and 02 of Kebele 05 in Sebeta City were purposely selected due to Sebeta City has different factories within a short distance and this may made confusion on the local community respondents to give the reliable information specifically about Meta Abo Brewery.

On the other hand, a purposive sampling technique was employed to select an appropriate sample size from the sample frame of this study, because all members of the sample frame didn't have enough and equal information about ESIA implementation and follow up in the study area. According to Saunders et al (2009), purposive sampling is often used when working with small samples research and when you wish to select particularly informative cases. This shows the purposive sampling technique is very important to collect data from a small number of sample size.

3.5. Sample Size Determination

According to Hamed (2017), the larger sample sizes reduce sampling error, but at an optimum rate. The size of the sample of the respondents should be neither extremely large nor too small; it must be optimum to get appropriate data. It may also depend on the type of research employed.

In a purposive sampling technique, the researcher used his judgments to select the best respondents to enable them to answer the research questions to meet the objectives of the study. The relevant respondents from Environment, Forest and Climate Change Commission, Oromia Environment, Forest and Climate Change Authority, Sebeta City Environment, Forest and Climate Change Authority, and Meta Abo Brewery those that have enough information about this study were involved in this study.

As a result, the researcher selected purposely a total of 3, 3, 3, and 2 respondents from federal Environment, Forest and Climate Change Commission, Oromia Environment, Forest and Climate Change Authority, Sebeta City Environment, Forest and Climate Change Authority, and Meta Abo Brewery respectively as key informant interview of this study. The selected key informants have enough information about this study problems and optimum sample sizes to conduct interview with informants. Also, the number of respondents purposely selected for focus group discussions were 2, 1, 1, 1, and 1 from Meta Abo Brewery, Sebeta

City Health Office, Sebeta City Investment Office, Sebeta City Labor and Social Affairs Office, and Sebeta City Administrative Office respectively.

The ESIA monitoring and evaluation experts and other relevant officials and experts were also selected to provide data about the implementation mechanism and status of environmental and social impact assessment monitoring and evaluation in Meta Abo Brewery. On the other hand, the appropriate senior experts working on the environmental and social impact assessment-related issues were purposely selected to provide adequate data about the adequacy of the legal and administrative framework for environmental and social impact assessment implementation and follow up in Meta Abo Brewery. In addition to this, Environment, Health and Safety Manager, and senior environmental experts of Meta Abo Brewery were got high attention in the selection of sample sizes of the study to provide information about the implementation mechanism and status of environmental and social impact assessment monitoring and evaluation in the study area.

Furthermore, the quantitative data about the perception of residents on the implementation and follow up of environmental and social impact assessment recommendation by proponent was collected from respondents of households around the Meta Abo Brewery in Gote 01 and 02 of Kebele 05 in Sebeta City because the impacts from this brewery company is seriously affecting the local communities in this Gotes. Therefore, the respondents who were randomly selected from these Gotes were believed by the researcher to provide adequate and reliable information.

According to the data obtained from Kebele 05 administrative in Sebeta City, the numbers of households affected by the impacts from this brewery factory were identified. Hence, 168 from Gote 01 and 144 from Gote 02, and a total of 312 potentially affected local communities were identified. Then, the researcher applied Yemane (1967) sample size determination formula, where, n = number of sample size, N = total number of households, and e =marginal of error. This formula was used for this study in which the total households; $N = 312$ with a $\pm 5\%$ level of precision. Assuming 95% confidence level and maximum variability, $P = 0.5$. The $\pm 5\%$ marginal error at a 95% confidence level is the best assumption to get reliable and accurate data from the total population of the study.

Therefore, when $N = 312$ and $e = 0.05$,

The sample size of the study, $n = \frac{N}{1+N(e)^2}$

$$n = \frac{312}{1+312(0.05)^2} = 175$$

The following formula was applied to decide the number of sample sizes in each Gote.

Therefore, the number of sample size in Gote 01 is equal to the

$$\frac{\text{Number of households in Gote 01}}{\text{Total number of households in both Gote}} \times \text{Number of sample size}$$

$$= \frac{168}{312} \times 175 = 94$$

The same formula was applied to determine the number of sample size from Gote 02.

Then, the number of sample size in Gote 02 is equal to the

$$\frac{\text{Number of households in Gote 02}}{\text{Total number of households in both Gote}} \times \text{Number of sample size}$$

$$= \frac{144}{312} \times 175 = 81$$

As indicated above, the total number of respondents employed for this study from both Gote 01 and 02 were 175.

Furthermore, the researcher was randomly selected 94 and 81 sample sizes from the alphabetical list of households potentially affected by environmental and social impacts results from Meta Abo Brewery in Gote 01 and 02 respectively. The source lists were obtained from the Kebele 05 in Sebeta City administrative office. Additionally, the Gote 01 and 02 administrative were consulted to identify the location of selected residences in this Gotes during data collection.

Therefore, 175 samples of respondents were selected through a random sampling method to collect perceptions of local communities in Gote 01 and 02 of Kebele 05 in Sebeta City regarding the perception of residents on the implementation and follow up of environmental and social impact assessment recommendation by proponent of Meta Abo Brewery.

3.6.Data Collection Method

The primary data for this study was collected through focus group discussion, key informant interviews, and closed-ended questionnaire techniques of data collections. Additionally, the secondary data was collected by document review. Using the combination of data collection techniques has increased the validity and reliability of the study. These techniques were employed to collect appropriate data from the samples of the study.

To collect the primary and secondary data from the respondents of the study, the key informant interview, focus group discussion, closed-ended questionnaire and document review data collection methods were applied for each specific objective as described below.

Key informant interview

Key informant interview is very important to collect appropriate and detailed information from well informed and experienced respondents on the issues under study. This method was implemented to collect qualitative data. The key informant interview checklist type was applied during the data collection. This method was used to collect qualitative data from 2, 2, and 2 respondents of OEFCCA, SCEFCCA, and Meta Abo Brewery respectively those who have enough information about implementation mechanism and status of environmental and social impact assessment monitoring and evaluation in this study area.

Additionally, key informant interview was employed to collect data about the adequacy of the legal and administrative framework for the implementation and follow up of environmental and social impact assessment recommendation from 3, 1 and 1 respondents of EFCCC, OEFCCA and SCEFCCA respectively. A total of 11 key informants were employed for this study.

Questionnaires

The closed-ended questions were used to collect quantitative data from the respondents of this study. The closed-ended questions were designed to collect data from the respondents of Gote 01 and 02 of Kebele 05 in Sebeta City about the perception of residents on the implementation and follow up of environmental and social impact assessment recommendation by proponent in Meta Abo Brewery. The closed-ended questions checklist was first prepared by the English language and translated to the local language which means Afan Oromo language and distributed for 175 respondents and filled by respondents. However, for illiterate respondents the response of each questions were filled by the researcher.

Focus Group Discussion

The focus group discussion was applied to get the detailed and additional information that was not obtained through the key informant interview and closed-ended questions. This method was employed to collect qualitative data about the implementation mechanism and

status of environmental and social impact assessment monitoring and evaluation, adequacy of the legal and administrative framework for the implementation and follow up of ESIA recommendation, and perception of residents on the implementation and follow up of environmental and social impact assessment recommendation by proponent in Meta Abo Brewery. One focus group discussion was conducted with concerned officials and experts. The purposely selected discussants from SCEFCCA, SCHO, SCIO, SCLSAO, and SCAO were 2, 1, 1, 1 and 1 respectively and a total of 6 members of discussants. This focus group discussion was conducted at the Sebeta City Environment, Forest and Climate Change Authority through facilitated by the researcher of the study.

Document Review

The secondary data were collected to incorporate in this study. The document review was made to collect secondary data from annual and monthly reports of the recent two years (2019 and 2020) of OEFCCA, SCEFCCA, and Meta Abo Brewery. Also, the ESIA study report conducted by consultants in 2014 for Meta Abo Brewery was reviewed. These data were collected mainly regarding to the status of environmental and social impact assessment monitoring and evaluation in Meta Abo Brewery in Sebeta City. This was used to identify the status of environmental and social impact assessment monitoring and evaluation in Meta Abo Brewery through comparing the frequencies of planned environmental and social impact assessment monitoring and evaluation in environmental and social impact assessment study report with the practical implementation of environmental and social impact assessment monitoring and evaluation by OEFCCA, SCEFCCA and Meta Abo Brewery.

3.7.Data Analysis Method

The thematic and descriptive statistical analyses were used to analyze the data of this study. The analysis of data collected from the respondents of this study was analyzed through thematic and descriptive statistics methods. The data about the implementation mechanism and status of environmental and social impact assessment monitoring and evaluation collected through key informant interviews, focus group discussion, and document review were qualitative data. Additionally, the data about the adequacy of the legal and administrative framework for implementation and follow up of environmental and social impact assessment was qualitative.

Therefore, the qualitative data about the implementation mechanism and status of environmental and social impact assessment monitoring and evaluation, and the adequacy of

the legal and administrative framework for implementation and follow up of environmental and social impact assessment was analyzed through thematic analysis. Thematic analysis is a good approach of data analysis to find the people's perceptions, knowledge and experience through a set of qualitative data collection method.

On the other hand, the analysis of quantitative data about the perception of residents on the implementation and follow up of environmental and social impact assessment recommendation by proponent collected through closed-ended questions were analyzed by descriptive statistical analysis method. The employed questions for this study were Likert type items because it is very important to rate the individual's perceptions related to a series of individual items. A most commonly 5-point scales ranging from strongly agree to strongly disagree was used. The frequency is one of the appropriate data analysis methods for Likert type data (Harry & Debora, 2012). Hence, frequency was used to analyze quantitative data of this study. In addition to this, the percentage was also used in analyzing data of this study. On the other hand, the table was also used for data presentation.

CHAPTER FOUR

4. RESULTS AND DISCUSSIONS

This chapter deals with the main findings of this study on the evaluation of the implementation and follow up of environmental and social impact assessment recommendation in Meta Abo Brewery. This chapter contains different sections. The response rate of the respondents on distributed closed-ended questions, socioeconomic characteristics of the respondents, implementation mechanism of ESIA monitoring and evaluation, implementation status of ESIA monitoring and evaluation, adequacy of the legal and administrative framework for the implementation and follow up of environmental and social impact assessment and perception of residents on the implementation and follow up of ESIA recommendation by proponent were included under this chapter. The data of this study were collected through a closed-ended questions, key informant interview, focus group discussion, and document review. This data was collected from different professionals and local communities that have enough awareness about this study. Each topic was presented and discussed below.

4.1. Response Rate of the Respondents on Distributed Questions

A total of 175 distributed questionnaires, 94 and 81 questionnaires were distributed for Gote 01 and 02 respondents respectively. Among the distributed 175 questionnaires 91 from Gote 01 respondents and 79 from Gote 02 respondents were collected and analyzed. Three (3) and Two (2) questionnaires were left with the respondents from Gote 01 and 02 respectively due to the respondents were not available during the collection of distributed questionnaires. As a result, the response rate of Gote 01 and Gote 02 of Kebele 05 in Sebeta City was 96.81% and 97.53% respectively. The total response rate of the respondents from the two Gotes was 97.14% and it is an acceptable response rate. The total number of distributed questions during the data collection and its response rate was described as below table.

Table 2: Response rate of the Respondents on distributed questions

Gotes of Respondents	Distributed questionnaires	Returned questionnaires	Response rate
Gote 01	94	91	96.81%
Gote 02	81	79	97.53%
Total	175	170	97.14%

Source: Own Survey Data, 2020

4.2.Socioeconomic Characteristics of the Respondents

The socioeconomic characteristics of respondents of perception of residents on the implementation and follow up of environmental and social impact assessment are sex, age, marital status; number of years lived in Sebeta City, educational status, occupation, and religion of the respondents. These socioeconomic characteristics are used to give a general understanding of each respondent. The demographic characteristics of the respondents were described by descriptive statistics as the table below.

Table 3: Socioeconomic Characteristics of Respondents

Independent Variables	Frequency	Percent
Sex		
Male	112	65.9
Female	58	34.1
Total	170	100
Age		
18-25	15	8.8
26-35	20	11.8
36-45	33	19.4
46-60	95	55.9
More than 60	7	4.1
Total	170	100
Marital Status		
Single	16	9.4
Married	148	87.1
Divorced	4	2.4
Widowed	2	1.2
Total	170	100
Number of years lived in the area		
Less than 3 years	8	4.7
3-5 years	15	8.8
6-10 years	24	14.1
More than 10 years	123	72.4
Total	170	100

Education		
Illiterate	4	2.4
Primary education (1-8)	113	66.5
Secondary education (9-12)	30	17.6
Diploma and Degree	23	13.5
Total	170	100
Occupation		
Farmer	108	63.5
Government employee	23	13.5
Daily labors	16	9.4
Merchant	23	13.5
Total	170	100
Religion		
Orthodox	92	54.1
Catholic	12	7.1
Muslim	20	11.8
Protestant	27	15.9
Wakeffata	19	11.2
Total	170	100

Source: Own Survey Data, 2020

The responses acquired from the 170 respondents shows that 112 (65.9%) were male and 58 (34.1%) were female respondents. This indicates the majority of the respondents were male. Beside of the ages of the respondents 15 (8.8%) were between 18-25, 20 (11.8%) were between 26-35, 33 (19.4%) were between 36-45, 95 (55.9%) were between 46-60, 7 (4.1%) were more than 60 age. This indicates the majority of the respondents of this study were between 46-60 ages.

The marital status of the respondents 16 (9.4%) were single, 148 (87.1%) were married, 4 (2.4%) were divorced and 2 (1.2%) were widowed as the data obtained from the respondents. As shown from the analyzed data, the majority of the respondents were married.

Regarding to the respondent's number of years lived in the area, 8 (4.7%) were lived in the area more than 3 years, 15 (8.8%) were lived in the area between 3-5 years, 24 (14.1%) were also lived in the area between 6-10 years and 123 (72.4%) respondents were lived in the Meta

Abo Brewery Company area for more than 10 years. Many respondents of this study were lived in the area of this study for more than 10 years.

On the other hand, the study survey indicates that 4 (2.4%) of respondents were illiterate, 113 (66.5%) were attended the primary education (1-8), 30 (17.6%) were attended the secondary education (9-12) and 23 (13.5%) respondents have college diploma and degree education level. This indicates that the educational level of the majority of the respondents of this study is good. The data obtained from the respondents of the study indicates, 108 (63.5%) were farmers, 23 (13.5%) were government employees, 16 (9.4%) were daily labors and 23 (13.5%) were the merchants. This study result shows that the majority of the respondents were farmers.

Also, the study result shows among the total respondents 92 (54.1%) were Orthodox religion followers, 12 (7.1%) were Catholic religion followers, 20 (11.8%) were Muslim religion followers, 27 (15.9%) were Protestant followers and 19 (11.2%) were Wakeffata followers. Even if the study result indicates the majority of the respondents were orthodox, the respondents of this study have different religious backgrounds.

Depending on the above analyzed data about socioeconomic characteristics of respondents of this study, especially in regards to the occupation of the respondents 63.5% of respondents were farmers and they used Abo River for irrigation and other purposes which have been polluted by water pollution discharged from Meta Abo Brewery. On the other hand, this shows that high number of residents affected by the impacts resulted from this Brewery. It also enhanced to know about the socioeconomic characteristics of each respondent.

4.3. Implementation Mechanism and Status of ESIA Monitoring and Evaluation

4.3.1. Implementation Mechanism of ESIA Monitoring and Evaluation

The implementation mechanism of ESIA monitoring and evaluation indicates that the way to operate in practice and its structural operations. The implementation mechanism of ESIA monitoring and evaluation data was collected through key informant interview from the selected key informants of Oromia region EFCCA, Sebeta City EFCCA and Meta Abo Brewery share company and focus group discussion conducted with selected discussants from SCEFCCA, SCHO, SCIO, SCLSAO and SCAO those concerned about the ESIA monitoring and evaluation activities of Meta Abo Brewery Share Company (see profile of study participants, appendix-1 and 2).

Concerning to the interview conducted on the mechanism of ESIA monitoring and evaluation; the senior experts of Sebeta City Environment, Forest and Climate Change Authority and senior environmentalist of Meta Abo brewery said that;

“Even though the scope of monitoring and evaluation during the pre-construction, construction, and operation phase of the project may be different depending on the type of the project, the implementation mechanisms follow the same structures. The implementation mechanism of ESIA monitoring and evaluation activity by itself has three parts. Those are monitoring planning, conducting monitoring, and monitoring follow up”.

According to the interview results of this study, the implementation mechanisms of ESIA monitoring and evaluation has its structural practice that should be followed by the experts. These mechanisms may include the monitoring planning, conducting monitoring and monitoring follow up to conduct effective ESIA monitoring and evaluation. Each mechanism may contain different activities such as monitoring objectives, scope, and other relevant parts.

On the other hand, the data obtained from Sebeta City Environment, Forest and Climate Change Authority and other relevant organizations through focus group discussion result indicates that even though the implementation of ESIA monitoring and evaluation is medium, the implementation mechanism covers from identifying monitoring objectives to take corrective actions in the project.

Accordingly, concerning to the Meta Abo Brewery in Sebeta City the discussants said that;

“ESIA monitoring and evaluation have been conducting by senior experts of Sebeta City EFCCA in Meta Abo Brewery. Thus, the implementation mechanism of ESIA monitoring and evaluation has been through identifying monitoring objectives, scope, information required, gathering information, reporting the results, evaluating the monitoring results, decision-making process, presenting the results, and taking corrective actions for further environmental improvements by the project proponent. But, many times this mechanism is not followed by experts due to lack of attention given for ESIA monitoring and evaluation”.

As a result, both the interview and focus group discussion data result of this study shows that the presence of the operational structure of ESIA monitoring and evaluation in the case of Meta Abo Brewery share company. However, during ESIA monitoring and evaluation; those

implementation mechanisms may not be followed by the professionals because ESIA monitoring and evaluation was conducting for the sake of solving situational problems like complain from the community. This indicates weak implementation mechanism of ESIA monitoring and evaluation in Meta Abo Brewery.

Depending on the interview data gathered from relevant key informants and focus group discussion results of this study, the operational structure (implementation mechanism) of ESIA monitoring and evaluation was developed as below figure 6.

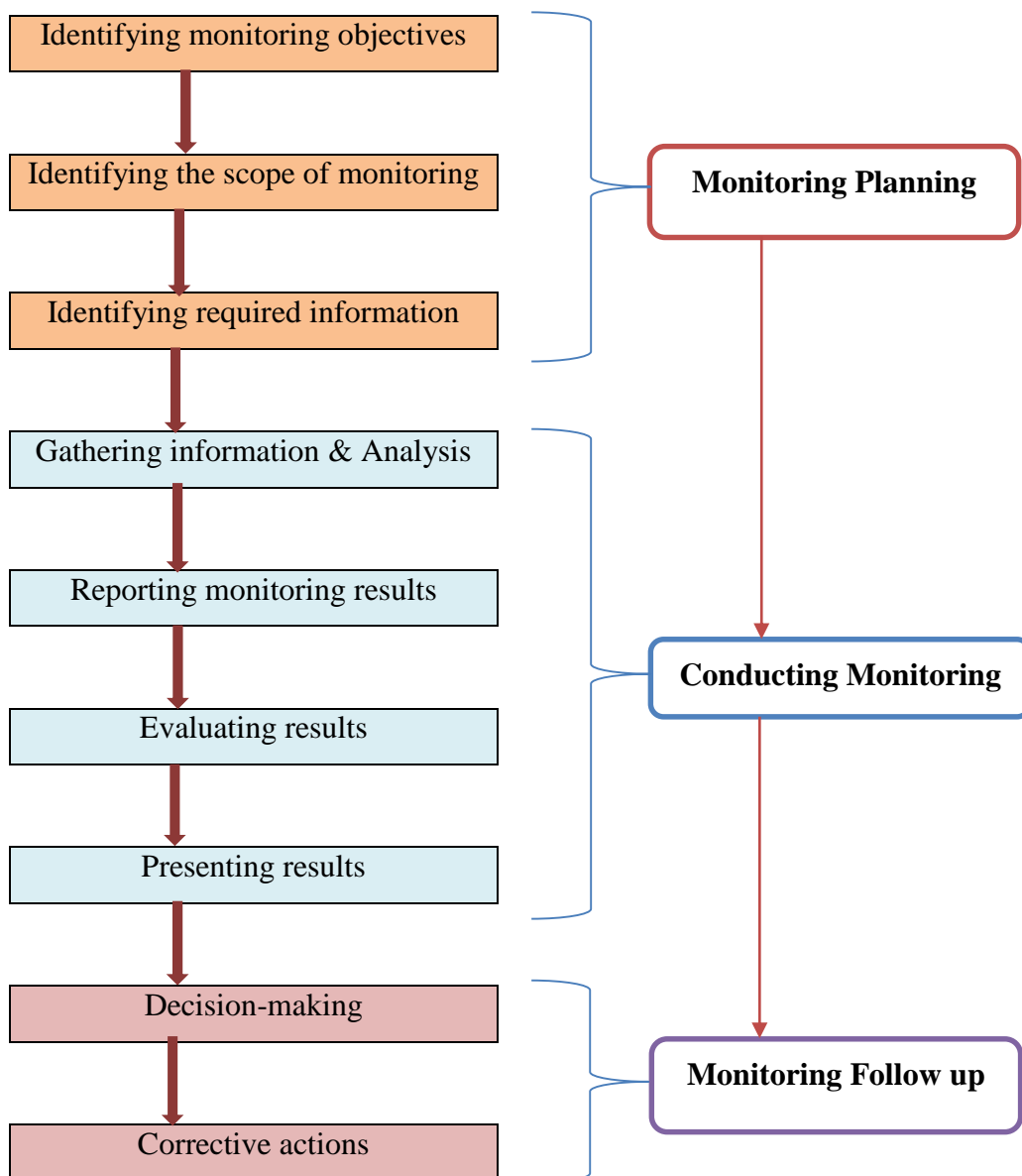


Figure 6: Mechanisms of ESIA Monitoring and Evaluation

Source: Own Constructed from Survey Data, 2020

During the implementation of ESIA monitoring and evaluation in Meta Abo Brewery, some mechanism of ESIA monitoring and evaluation were omitted especially, the mechanisms after reporting the monitoring results.

The literature review related evidence enhances the results of the mechanism of ESIA monitoring and evaluation. According to Fuchaka, Kambona & Mireri (2019), the environmental monitoring and evaluation activity involves ‘planning of monitoring program, data collection, data analysis, interpretation and reporting of data results’. This indicates that the implementation of the mechanism of environmental and social impact assessment during monitoring and evaluation activity covers the planning of monitoring activity to reporting the final result to the concerned bodies for future environmental improvements.

4.3.2. Implementation Status of ESIA Monitoring and Evaluation

To know the implementation status of environmental and social impact assessment monitoring and evaluation in Meta Abo Brewery, the key informant interview was conducted with ESIA case team leader and experts from Oromia Environment, Forest and Climate Change Authority, Sebeta City Environment, Forest and Climate Change Authority and Meta Abo Brewery environmental managers and experts.

Accordingly, the Oromia Regional State Environment, Forest and Climate Change Authority environmental and social impact assessment case team leader said that;

“The ESIA monitoring and evaluation in Meta Abo Brewery has been conducting to evaluate the implementation of mitigation measures in the project by the regulatory body. Additionally, the proponent of the project also established the environmental unit in the project and conduct the ESIA monitoring and evaluation. However, this monitoring and evaluation were not regularly conducted both by regulatory body and project proponent as planned on environmental and social impact assessment”.

This interview result shows that, even though the ESIA monitoring and evaluation were conducted both by regulatory bodies and proponent; it lacks continuity and below the planned environmental and social impact assessment monitoring and evaluation of the environmental and social management plan of the project.

On the other hand, all discussants of focus group discussion concerning the status of ESIA monitoring and evaluation in Meta Abo Brewery said that;

“The OEFCCA and SCEFCCA have been conducting ESIA monitoring and evaluation in Meta Abo Brewery depending on the local communities’ complains on the brewery. But, many times the water pollution released from the brewery affects the local communities in the city due to weak corrective actions taken by regulatory bodies. The proponent also sometimes conduct the internal ESIA monitoring and evaluation. The ESIA monitoring and evaluation implementation status was not conducted as planned on the ESIA study report of the brewery”.

This shows that even though some ESIA monitoring and evaluation were conducting depending on the local community’s complain, the corrective actions required from the regulatory body were not enough to solve the communities’ complain because the waste has been discharged to the river. Additionally, the ESIA monitoring and evaluation conducted by regulatory bodies and proponent was not to bring real change in brewery. This indicates weak ESIA monitoring and evaluation conducted by both the regulatory body and project proponent.

Even though there is some weaknesses concerning the ESIA monitoring and evaluation by regulatory body and proponent, there is also some strength of ESIA monitoring and evaluation by regulatory bodies and proponent. The establishment of environmental unit by proponent and ESIA monitoring and evaluation by regulatory bodies and proponent in the brewery are the major strengths. Therefore, depending on both the interview and focus group discussion results the implementation status of ESIA monitoring and evaluation was weak because of weak effective enforcement mechanisms by regulatory bodies, weak implementation of ESIA monitoring and evaluation mechanisms, and weak ESIA monitoring and evaluation by the regulatory body and proponent of Meta Abo Brewery.

On the other hand, concerning the determinants of effective ESIA monitoring and evaluation, the ESIA senior experts from Oromia Regional State Environment, Forest and Climate Change Authority stated that;

“Effective environmental and social impact assessment monitoring and evaluation can be determined by the institutional capacity (human, financial and material resources), cooperation’s among regulatory body and proponent, managerial commitment, commitment of proponent, adequate and updated legal and administrative framework of environmental and social impact assessment”.

The above interview result shows that the determinants of effective ESIA monitoring and evaluation were qualified and skilled human resources, financial resources, laboratory material resources, collaboration's among stakeholders, and commitment of the management, adequate and updated legal and administrative frameworks. The political influence and institutional arrangements may also determine the effective implementation of ESIA monitoring and evaluation.

In addition to both the key informant interview and focus group discussion; the ESIA study report conducted for Meta Abo Brewery in 2014, especially the ESIA monitoring and evaluation plan part was reviewed through comparing with the ESIA monitoring and evaluation annual and monthly reports. The monthly and annual reports of ESIA monitoring and evaluation of Oromia Regional State Environment, Forest and Climate Change Authority, Sebeta City Environment, Forest and Climate Change Authority, and Meta Abo Brewery were used. This review data results were used to know the implementation status of ESIA monitoring and evaluation in Meta Abo Brewery by proponent and regulatory bodies. The monthly and annual reports of the recent two years (2019 and 2020) during the operation phase of the brewery was used in this report review process.

Table - 4 below shows that the comparison of the frequencies of planned ESIA monitoring and evaluation with its implementation of monthly and annual reports by brewery's environmental unit, SCEFCCA, and OEFCCA.

Table 4: Comparison of ESIA monitoring and evaluation plan with its implementation of monthly and annual reports

Environmental and Social Impacts (Review Criteria)	Frequency of monitoring and evaluation planned on ESIA study report	Monthly and annual reports of ESIA monitoring and evaluation from review results
Healthy and safety risk of all workers	Weekly by brewery's environmental unit	Two monthly reports
	Monthly by SCEFCCA and other relevant environmental authority	Two monthly reports by SCEFCCA
Pollution of water bodies due to	Weekly by brewery's environmental unit	Two monthly reports

process effluent discharge	Monthly by SCEFCCA and other relevant environmental authority	Two monthly reports by SCEFCCA and one annual report OEFCCA
Noise pollution during operation	Weekly by brewery's environmental unit	No reports
	Monthly by SCEFCCA and other relevant environmental authority	Two monthly reports and one annual report by SCEFCCA
Air pollution due to gaseous emissions	Weekly by brewery's environmental unit	One monthly report
	Monthly by SCEFCCA and other relevant environmental authority	Two monthly reports by SCEFCCA
Ambient air pollution due to odor	Weekly by brewery's environmental unit	No reports
	Monthly by SCEFCCA and other relevant environmental authority	Two monthly reports by SCEFCCA
Pollution due to solid wastes	Weekly by brewery's environmental unit	Two monthly reports
	Monthly by SCEFCCA and other relevant environmental authority	One annual report by OEFCCA
Impacts due to energy consumption	Weekly by brewery's environmental unit	No report
	Monthly by SCEFCCA and other relevant environmental authority	One monthly report by SCEFCCA

Source: Researcher's Assessment Summary of Document Review

This review result points out that, the ESIA monitoring and evaluation plan were identified for environmental and social impacts which may result during the construction and operation of the Meta Abo Brewery. Besides, the table 4 indicates there were some gaps between the planned frequencies of ESIA monitoring and evaluation and monthly and annual reports of ESIA monitoring and evaluation conducted in Meta Abo Brewery by both regulatory bodies and proponent of the brewery. The above review result also indicates the environmental and social impacts were not weekly monitored by the brewery's environmental unit. Similarly, the environmental and social impacts identified and stated in the environmental and social management plan were not monitored and evaluated by the regulatory bodies. However,

when compared the ESIA monitoring and evaluation conducted by regulatory bodies and environmental unit of the brewery, the monthly and annual reports of ESIA monitoring shows that more monitoring and evaluation were conducted by regulatory bodies than the environmental unit of Meta Abo Brewery.

The documents reviewed indicate that, even though the ESIA monitoring and evaluation planning were specified in the environmental and social impact assessment study of Meta Abo Brewery, the ESIA monitoring and evaluation was not implemented as planned. In conclusion, not only the internal monitoring and evaluation expected from the proponent but also, the external ESIA monitoring and evaluation conducted by OEFCCA and SCEFCCA in Meta Abo Brewery was low when compared to the planned monitoring and evaluation activities with implementation report made by the regulatory bodies and proponent.

Thus, in addition to the interview and focus group discussion data results, the document review results also indicate that weak implementation status of environmental and social impact assessment monitoring and evaluation. Therefore, depending on the interview, focus group discussion and document review data results, the implementation status of ESIA monitoring and evaluation in Meta Abo Brewery was on weak implementation status due to weak ESIA monitoring and evaluation by proponent and regulatory bodies.

With regards to the institutional capacity and cooperation's and managerial commitment for ESIA monitoring and evaluation, the interview conducted with the senior expert of Oromia Region EFCCA, Sebeta City EFCCA Senior Expert and Meta Abo Brewery Environmental, Health and Safety Manager. Accordingly, the senior ESIA monitoring and evaluation expert of Oromia Region EFCCA and Senior Expert of Sebeta City EFCCA said that;

“The human resources were somewhat enough to conduct ESIA monitoring and evaluation at the regional level. However, the financial and material resources were weak. Below the regional level structure, the institutional capacity was weak. The cooperation's among environmental authority from federal to woreda level and with other concerned institutions was also weak. On the other hand, the managerial commitment to ESIA monitoring and evaluation was low. They are not willing to allocate the budget for ESIA monitoring and evaluation rather than other activities. The monitoring and evaluation have been conducting when it is must or ordered by higher officials due to some complain”.

This interview data results show that, even though the human resources were good and the regional level, there was a weak institutional capacity for environmental and social impact assessment monitoring and evaluation. Also, the cooperation's among the regulatory bodies from federal to woreda level and with other relevant environmental and social impact assessment monitoring and evaluation concerned bodies were weak on environmental and social impact assessment monitoring and evaluation as the interview result conducted with relevant key informants indicated. Moreover, the above interview result also points out that the managerial commitment in enforcing the implementation of environmental and social impact assessment monitoring and evaluation in Meta Abo Brewery was also weak due to political influence. The management was not committed to allocate financial support for the environmental and social impact assessment monitoring and evaluation activities.

Furthermore, the environmental, Health and Safety Manager of Meta Abo Brewery said that;

“The institutional capacity of the regulatory body is weak especially; they have the scarcity of laboratory materials for environmental monitoring data analysis. Many times the proponent of the brewery was enforced by regulatory bodies to cover the budget required for laboratory testing. There was also no capacity building made for the brewery's environmental unit. The regional and city-level environmental authorities conduct the monitoring and evaluation of similar issues within a few periods. Planning together for ESIA monitoring and evaluation was weak”.

The interview result conducted with the environmental, Health and Safety Manager of Meta Abo Brewery indicates that there was the weak institutional capacity of the regulatory bodies especially, on the skilled manpower enough to build the capacity of brewery's environmental unit on environmental and social impact assessment monitoring and evaluation. The interview result also shows a lack of material resources such as monitoring data analyzing materials. According to interview data results, due to lack of laboratory materials of the regulatory bodies institution, the monitoring data was tested at a private company and the payment was covered by the proponent. This may have another influence on the reality of ESIA monitoring data results.

Also, weak cooperation's among the institutions from federal to the local level on the environmental and social impact assessment monitoring and evaluation in the Meta Abo Brewery. As the above interview result indicates, the lack of communicating with each other because they were monitoring and evaluating similar issues within a few periods. It may

show the lack of clear responsibilities on environmental and social impact assessment monitoring and evaluation activities for the regional environment, Forest and Climate Change Authority and Sebeta City environment, Forest and Climate Change Authority.

Therefore, depending on the interview data conducted about institutional capacity and cooperation among environmental authority and other concerned bodies, and also the managerial commitment for ESIA monitoring and evaluation concerning to Meta Abo Brewery, there were weak institutional capacity and collaboration among the Federal and Regional Environment, Forest and Climate Change Authority on ESIA monitoring and evaluation. There was also a lack of collaborations with those environmental authorities and other concerned bodies. Similarly, the managerial commitment for environmental and social impact assessment monitoring and evaluation was weak due to political influence on their responsibilities.

The focus group discussion was conducted with discussants selected from Sebeta City environment, Forest and Climate Change Authority and other concerned bodies; Sebeta City (Health Office, Investment Office, Labor, and Social Affairs Office and Administration Office) about the implementation of environmental and social impact assessment monitoring and evaluation, level of government environmental authority conducting the environmental and social impact assessment monitoring and evaluation, and capacity of the proponent to conduct internal environmental and social impact assessment monitoring and evaluation in Meta Abo Brewery.

Accordingly, more discussants stated that;

“The implementation of ESIA monitoring and evaluation in Meta Abo Brewery was weak because the environmental pollution discharged from the brewery affects the downstream communities. The OEFCCA and SCEFCCA have been conducting the ESIA monitoring and evaluation in Meta Abo Brewery. Additionally, the proponent of the brewery has enough financial capacity for monitoring and evaluation. However, the human resource capacity and material capacity is not enough. The brewery’s environmental unit has only one environmental, health and Safety manager and one environmentalist. The brewery also lacks the laboratory materials for ESIA monitoring data analysis”.

Thus, the focus group discussion data results show that the weak implementation of ESIA monitoring and evaluation. The Oromia Regional State Environment, Forest and Climate Change Authority, and Sebeta City Environment, Forest and Climate Change Authority have been conducting the ESIA monitoring and evaluation in the Meta Abo Brewery. Additionally, the focus group discussion data result also shows that, even though the proponent of the brewery have enough financial capacity, the human resources and material resources were not enough to conduct ESIA monitoring and evaluation effectively. The members of the environmental unit; one environmental, health and safety, and one environmentalist were not enough to implement the ESIA monitoring and evaluation per planned in the ESIA study report of Meta Abo Brewery. In addition to this, the brewery lacks adequate laboratory materials used for ESIA monitoring.

On the other hand, one discussant who participated in the focus group discussion from Sebeta City Environment, Forest and Climate Change Authority was stated that; ‘depending on the scale and essence of ESIA monitoring and evaluation, the Federal Environment, Forest and Climate Change Commission has been conducting ESIA monitoring and evaluation in Meta Abo Brewery’. This indicates that including the Oromia Environment, Forest and Climate Change Authority and Sebeta City Environment, Forest and Climate Change Authority, the Federal Environment, Forest and Climate Change Commission can conduct the environmental and social impact assessment monitoring and evaluation in Meta Abo Brewery. But, to enforce other environmental and social impact assessment approval conditions of this brewery project, the environmental authority approved the environmental and social impact assessment study report of the Meta Abo Brewery is required to conduct the environmental and social impact assessment monitoring and evaluation.

Depending on the above key informant interview, document review, and focus group discussion results, this study indicates weak implementation status of environmental and social impact assessment monitoring and evaluation in Meta Abo Brewery was weak. Moreover, strengthening cooperation’s among institutions, institutional capacity building, scheduled and continuous internal and external monitoring and evaluation by the proponent and regulatory bodies respectively, and genuine managerial commitments are the major factors that enhance the effective implementation of environmental and social impact assessment monitoring and evaluation in the Meta Abo Brewery development project.

4.4. Legal and Administrative Framework for the Implementation and Follow up of ESIA in Ethiopia

4.4.1. Legal Framework for the Implementation and Follow up of ESIA

The adequacy of the legal framework for the implementation and follow up of environmental and social impact assessment recommendation data were collected through key informant interviews conducted with experts from EFCCC, OEFCCA, and SCEFCCA. Additional data was collected through focus group discussions conducted with different experts selected from different relevant organizations including Sebeta City Environment, Forest and Climate Change Authority.

The first interview was conducted with senior ESIA experts of Federal EFCCC concerning to working legal framework for the implementation and follow up of ESIA and its adequacy. Then, he said that;

“The working legal frameworks for the implementation and follow up of ESIA in Ethiopia is the Constitution of the Federal Democratic Republic of Ethiopia especially, article 43, 44 and 92, Environmental Policy of Ethiopia, Environmental Impact Assessment Proclamation No. 299/2002, Environmental Impact Assessment Procedural Guideline Series 1/2003, Environmental Impact Assessment Directive 1/2008, Environmental Pollution Control Proclamation 300/2002, Environmental Standards 2003 and Labor Occupational Safety and Health Proclamation 377/2003. Those legal frameworks are not enough for effective ESIA implementation and follow up, and are not updated”.

Based on the interview results, even if the above legal frameworks for the implementation and follow up of ESIA have been the working legal frameworks, they are not adequate to implement and follow up the environmental and social impact assessment recommendation in Meta Abo brewery. The interview result also indicates that including the environmental policy of Ethiopia and many other legal frameworks such as ESIA proclamation, environmental pollution control proclamation, and environmental impact assessment procedural guidelines are not yet updated after their formulation. They need the additional modification with the current situation. Especially, the mandate aspect of legal frameworks among the federal and regional, city administration and woreda level of environmental authority required to be modify. Hence, the adequate and updated legal frameworks are essential to enforce the implementation and follow up of environmental and social impact assessment recommendation in development projects such as Meta Abo Brewery.

On the other hand, depending on this interview results of this study, the effective environmental and social impact assessment implementation and follow up legal framework needs additional technical legal frameworks such as environmental monitoring and evaluation guideline, and environmental audit guideline. The data gathered through interview point out that, though some working legal frameworks are in place, they are not effective for environmental and social impact assessment implementation and follow up due to they are not updated yet.

Besides, the interview result conducted with senior experts of ESIA in Oromia Environment, Forest and Climate Change Authority indicates that ‘the Oromia Regional National State Environmental Impact Assessment Proclamation No. 176/2012 and Environmental Pollution Control Proclamation No. 177/2012’ are the major working legal frameworks at regional and below regional level that supports the ESIA implementation and follow up.

On the other hand, the interview conducted with experts from Sebeta City Environment, Forest and Climate Change Authority stated that; ‘the ESIA legal frameworks formulated at the regional level such as EIA proclamation 176/2012 and environmental pollution control proclamation 177/2012 were used for ESIA implementation and follow up’. This also shows that environmental impact assessment proclamation 176/2012 and environmental pollution control proclamation 177/2012 were used as the working legal frameworks for environmental and social impact assessment implementation and follow up in Meta Abo Brewery.

Furthermore, the environmental and social impact assessment monitoring and evaluation expert of Federal Environment, Forest and Climate Change Commission said that;

“In addition to the current Environmental Policy, EIA proclamation, environmental pollution control proclamation and EIA procedural guideline; the environmental and social impact assessment monitoring and evaluation and environmental and social impact assessment auditing guidelines are the legal frameworks required to be in place for effective environmental and social impact assessment implementation and follow up in Meta Abo Brewery. Moreover, for the proponent who may fail the approval conditions ESIA implementation, each corrective action that may be taken by the regulatory bodies was not well identified and should be legal”.

Depending, on the above interview data results, the environmental and social impact assessment monitoring and evaluation, and environmental and social impact assessment

auditing guidelines are required to be formulated by the government and in place for implementation and follow up. Also, the corrective actions that may be taken by the regulatory bodies on the proponent fails the approval conditions and other legal requirements should be identified to take effective actions. According to these results, the corrective actions required to be identified also supported by law and formulated.

In addition to the interview conducted with relevant key informants, the focus group discussion was made with relevant discussants selected from Sebeta Environment, Forest and Climate Change Authority, Sebeta City Health Office, Sebeta City Investment Office, Sebeta City Labor, and Social Affairs Office and Sebeta City Administrative Office concerning to the current legal frameworks to enforce the proponent for effective implementation and follow up of ESIA recommendation.

Accordingly, the discussants said that;

“The ESIA proclamation and guideline are the major ESIA working legal frameworks used to enforce the implementation and follow up of environmental and social impact assessment. The approval conditions of the ESIA study report also used in enforcing and follow up of environmental and social impact assessment in the development project. Additionally, the international environmental legal frameworks have crucial roles in enforcing the implementation and follow up of ESIA. But, the country-level environmental legal frameworks need additional clarification especially, on the mandate of regulatory bodies in ESIA implementation and follow up. Hence, it is not effective”.

This focus group discussion results indicate that the main present working legal frameworks assist to enforce the proponent for effective ESIA implementation and follow up were the ESIA proclamation 299/2002 and ESIA procedural guideline 1/2003. Additionally, the international environmental legal frameworks and approval conditions of environmental and social impact assessment and the ESIA report itself supports the regulatory bodies to enforce the proponent for ESIA implementation and follow up. The enforcement mechanism and procedures enhance to take action on the project owners who fail the ESIA implementation and follow up should be in place and supported by legal frameworks. On the other hand, there were no effective and functional procedural actions in place to take action on the development projects that fail the approval conditions and other legal requirements.

Another focus group discussion concerning questions about the legal framework for the implementation and follow up of ESIA recommendation was also its strength and weakness. Then, the discussants of this focus group discussion said that;

“The main strengths of working legal frameworks for the implementation and follow up of ESIA are supporting the implementation and enforcement mechanism in the development project, enforce the proponent to implement the approval conditions, puts the ESIA study as the pre-requirements of development project before its implementation, have good implications if they are properly implemented and encourage the environmental sustainability. They also used as the legal background for the current implementation and follow up of ESIA processes in the country”.

This indicates that the legal frameworks for the implementation and follow up of environmental and social impact assessment practice in the country have crucial roles in the implementation and follow up in the development project. Even though some clarifications are required for the effective implementation and follow up of ESIA legal frameworks, they may have many advantages for the current environmental and social impact assessment level in the country. Additionally, the environmental and social impact assessment study decided as the pre-requirement of the Meta Abo Brewery by the government before going into implementation to mitigate the environmental and social impacts of the project was one of the best steps that show the strength of environmental and social impact assessment legal frameworks in Ethiopia.

In another way, concerning the weakness of legal frameworks of environmental and social impact assessment, the discussants said that;

“Many ESIA legal frameworks are not updated, they lack adequacy and clarification to take actions, the social impacts resulted during project implementation were not incorporated in ESIA legal frameworks and many legal frameworks adopted at the federal level were not translated to the local languages. In addition to this, the lack of demarcation among ESIA monitoring and auditing that was not clearly explained in the legal framework are the major weaknesses of legal frameworks for ESIA implementation and follow up”.

In regards to the above focus group discussion results, it shows that the significance of environmental and social impact assessment implementation and follow up legal frameworks modification for more effective implementation and follow up in the development project. Other legal frameworks such as environmental monitoring and evaluation and environmental and social impact assessment auditing guidelines support the implementation and follow up of environmental and social impact assessment also required as the result of focus group discussion made with many discussants of concerned bodies. Even though the omission of the social aspects from the legal framework is the technical issue, it should be enhanced by ESIA legal framework to take attention to social impacts which may be resulted during the implementation of the project.

Additionally, according to the focus group discussion results, the ESIA legal frameworks adopted at the federal level were not translated to the local languages. This may be difficult for the local communities to understand easily and take part in the environmental and social impact assessment process. Moreover, the difference between ESIA monitoring and auditing was not identified in the legal framework as indicated by the discussants. This obstacle the implementation of ESIA monitoring and auditing in the development projects such as Meta Abo Brewery.

Therefore, the data results about the adequacy of ESIA legal frameworks of environmental and social impact assessment obtained through key informant interview and focus group discussion of this study indicates that; even though many support legal frameworks are in place for environmental and social impact assessment implementation and follow up, they are not enough for effective environmental and social impact assessment implementation and follow up. They need additional modification and legal frameworks, and clear enforcement mechanism of environmental and social impact assessment study in the development project.

4.4.2. Administrative Framework for the Implementation and Follow up of ESIA

In Ethiopia, the government structure for the administration of ESIA implementation and follow up was organized from federal to woreda level. This structural administration needs effective, adequate, and updated relevant ESIA administrative frameworks. Thus, the data about the adequacy of administrative frameworks of ESIA implementation and follow up was collected through key informant interview and focus group discussion. The key informant interview was conducted with Director of Environmental and Social Impact Assessment Directorate at Environment, Forest and Climate Change Commission and relevant

professionals of Oromia Environment, Forest and Climate Change Authority and Sebeta City Environment, Forest and Climate Change Authority.

Accordingly, concerning to the question about the working administrative framework for ESIA implementation and follow up, and its adequacy and updating issues, Director of Environmental and Social Impact Assessment Directorate at Environment, Forest and Climate Change Commission said that;

“Not, only for ESIA implementation and follow up in Meta Abo Brewery, but also in Ethiopia, the working administrative frameworks for ESIA implementation and follow up are the Environmental Protection Organs Establishment Proclamation No. 295/2002 and Definitions of Powers and Duties of Executive Organs of the Federal Democratic Republic of Ethiopia Proclamation No. 916/2015 frameworks. This administrative framework needs modification and clarification of responsibilities among federal and regions on ESIA implementation and follow up. Even though the improvements were made on the name of the organization, the administrative frameworks were not updated”.

This interview result shows that the environmental protection organs establishment proclamation No. 295/2002 and the proclamation stated about the definitions of powers and duties of executive organs of FDRE Proclamation No. 916/2015 were helping as the administrative framework ESIA implementation and follow up in Ethiopia. From the interview results, the above frameworks need clarification on the mandates among the Federal Environment, Forest and Climate Change Commission and Regional Environment, Forest and Climate Change Authority to implement and follow up the ESIA. It also indicates the requirements of additional administrative frameworks to enhance the ESIA implementation and follow up practice in Ethiopia. Additionally, as the interview result study point outs, concerning the administrative framework of environmental and social impact assessment implementation and follow up the mandates of federal EFCCC and regional EFCCA was not adequate and updated. Not only the implementation and follow up mandates, but also the mandate of ESIA study approval was not identified in the ESIA administrative framework.

On the other hand, the interview result indicates that, even though the Federal Environment, Forest and Climate Change Commission renamed after three times name change from the original name ‘Environmental Protection Authority’, the administrative frameworks were not

yet updated. The Environmental Protection Authority established by Proc. 295/2002 change its name to the Ministry of Environment and Forest by proc. 803/2013, then it also changed to the Ministry of Environment, Forest and Climate Change by Proc. 916/2015 and the current Environment, Forest and Climate Change Commission in 2018 without changing its original roles and responsibility concerning to the ESIA implementation and follow up. This also shows that, low attention given for updating the administrative frameworks.

Additionally, the Director of Environmental and Social Impact Assessment Directorate at the Federal Environment, Forest and Climate Change Commission said that;

‘The administrative framework that shows the roles and responsibilities of regulatory bodies is crucial in the effectiveness of ESIA implementation and follow up. And, also the enforcement of proponent for the implementation and follow up of ESIA is through monitoring and evaluation of the implementation of mitigation measures as stated on the ESIA study report’.

This indicates the roles and responsibilities to be separated among the federal, regional, zonal, woreda, and city administration level in respect to the ESIA implementation and follow up. As well, the monitoring and evaluation conducted by the regulatory body is a major action taken for the enforcement of the ESIA implementation and follow up in the development project.

Moreover, the interview was conducted with ESIA senior experts from Oromia Environment, Forest Climate Change Commission about the administrative frameworks that should be in place for effective ESIA implementation and follow up and the way the regulatory bodies enforce the proponent to implement the approval conditions and other legal requirements of environmental and social impact assessment. Hence, he said that;

“The adequate and updated administrative frameworks are very important for effective ESIA implementation and follow up. The administrative framework should indicate the roles and responsibilities of federal EFCCC and Oromia Regional Environment, Forest and Climate Change Authority for ESIA implementation, and follow up. Currently, depending on the responsibilities given for the federal Environment, Forest And Climate Change Commission and Regional Environment, Forest and Climate Change Authority, the regulatory body enforces the proponent through ESIA monitoring and evaluation.

According to the above interview study results, adequate and updated administrative frameworks should be in place for effective ESIA implementation and follow up. On the other hand, the roles and responsibilities of the regulatory body is required and the ESIA monitoring and evaluation conducted by the regulatory body is the way to enforce the proponent for ESIA implementation and follow up in Meta Abo Brewery.

The power has already given for the regulatory body by the proclamation No. 295/2002 and 299/2002 to enforce the project owners. This may be through awareness creation for project owners to improve the commitment of proponent, conducting the environmental monitoring and evaluation, and auditing on the development project. Failing the implementation of approval conditions and other international and national environmental legal requirements may lead the proponent to penalty, paying compensation, and restore the damaged person and environment. Finally, it may go up to the cancellation of environmental clearance certification.

Even if the trans-regional projects are administrating by the Federal Environment, Forest and Climate Change Commission and regional projects are administering by Regional Environment, Forest and Climate Change Authority, there is a collapse of a mandate at federal and regional level for ESIA implementation and follow up activities that need further explanations. This may challenge the effective implementation and follow up of environmental and social impact assessment.

The interview was also conducted with the Environmental Compliance Senior Experts at Sebeta City Environment, Forest and Climate Change Authority concerning the administrative framework of ESIA implementation and follow up. He also said that; ‘the structural arrangements of environmental protection from federal to local level have their roles in the effective ESIA implementation and follow up. The administration of ESIA implementation and follow up also needs the cooperation of institutions’. This interview results also indicate that the environmental protection organization should have the same structural arrangements and be independent at each level for effective ESIA implementation and follow up. Additionally, at each level of organization, the structural arrangement with a workable mandate and job description is very important. Hence, the environment is our common property and desires international collaboration, the administrative framework required for effective environmental and social impact assessment implementation and follow up also enhances the institutional collaborations or joint administrative framework.

Besides to the interview conducted with key informants, the focus group discussion was made with relevant discussants selected from Sebeta Environment Forest and Climate Change Authority, Sebeta City Health Office, Sebeta City Investment Office, Sebeta City Labor, and Social Affairs Office and Sebeta City Administrative Office concerning to the administrative frameworks for ESIA implementation and follow up.

Accordingly, many discussants said that;

“The administrative frameworks of ESIA implementation and follow up need modification and clarification. Additionally, the local government hasn’t enough capacity to follow up ESIA implementation unless the financial, human, and material resources are available. Many environmental authorities below region are merged with other offices”.

As the focus group discussion results, the administrative frameworks concerning to ESIA implementation and follow should be updated and required clarification in concern to administrative responsibility of regulatory bodies on ESIA implementation and follow up for each level. The focus group discussion results also indicate the local government below the regional level has no enough administrative capacity to implement and follow up the ESIA process at their levels because many environmental authorities at zonal and woreda levels are merged with other offices and have no administrative capacity to manage human, financial, and material resources used for the ESIA implementation and follow up.

Therefore, the administrative capacity of many local governments towards the ESIA implementation and follow up were weak due to lack of enough skilled manpower, financial and material resources.

Regards to focus group discussion concerning the strength and weakness of an administrative framework, the discussants said that;

“The presence of administrative framework at the federal level and structural arrangements from federal to woreda level in many regions are the main strengths. The lack of well-defined responsibilities of the federal, regional, zonal and woreda level environmental authority on ESIA implementation and follow up, lack of institutional capacity (human, financial and material resources) to give a timely response, lack of cooperation’s among each organization and lack

of managerial commitment due to political influence are the major weaknesses of the administrative framework on ESIA implementation and follow up in development projects”.

As the data obtained from the focus group discussion conducted with concerned discussants, the major strengths of administrative frameworks of ESIA implementation and follow up were the availability of some administrative framework, especially those adopted at the federal level by proclamation No.295/2002 (Environmental Protection Organs Establishment Proclamation) and proclamation No. 916/2015 (Definitions of Powers and Duties of Executive Organs of the Federal Democratic Republic of Ethiopia Proclamation). The focus group discussion results also indicate that the structural arrangements from federal to the woreda level for the administration of ESIA implementation and follow up.

Additionally, the weaknesses identified through this focus group discussion were a lack of clear responsibilities of the federal, regional, zone and woreda level environmental authority on ESIA implementation and follow up, lack of institutional capacity (human, financial and material resources), lack of cooperation's among each organization and lack of managerial commitment due to political influences. This indicates the effectiveness of environmental and social impact assessment implementation and follow up is currently affecting by the weakness of the administrative framework.

Depending on the interview conducted with key informants and focus group discussion with the concerned discussants of this study about the adequacy of administrative frameworks of ESIA implementation and follow up, some improvements should be made for the effective implementation and follow up of ESIA in development projects. Especially, the lack of institutional capacity, the merge of environmental protection office with other offices, lack of sharing responsibilities on ESIA implementation and follow up, weak enforcement mechanism by the regulatory body, and proponent were the results of this study.

Generally, to make effective ESIA implementation and follow up, the administrative framework should be effective and functional from federal to woreda level. The administrative responsibility also is given for each level of regulatory bodies to implement and follow up on the ESIA in the administrative area. Also, the regulatory bodies had better to work effectively concerning their mandates given for them by law and work for the improvement of administrative framework and implementation and follow up activities in the Meta Abo Brewery.

4.5. Responsibility of the Proponent for the Implementation and Follow up of ESIA Recommendation

The quantitative data concerning the perception of residents on the implementation and follow up of ESIA recommendation by proponent were collected through closed-ended questions from the selected respondents of Gote 01 and 02 of Kebele 05 in Sebeta City. The qualitative data was also used to obtain adequate data through focus group discussion from different relevant organizations involving in the ESIA implementation and follow up activities. The perception of residents on the implementation and follow up of environmental and social impact assessment recommendation by proponent of Meta Abo Brewery were analyzed as below table.

Table 5: Perception of residents on the implementation and follow up of ESIA recommendation by proponent

S/ N o.	Questions	Response of Respondents									
		Strongly agree		Agree		Neutral		Disagree		Strongly disagree	
		Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent
	Do you think the implementation and follow up of ESIA recommendations are effectively done by the proponent in Meta Abo Brewery?										
1	Implementation of environmental and social management plan	0	0	5	2.9	0	0	14	8.2	151	88.8
2	Regular internal ESIA monitoring, evaluation and reporting	0	0	4	2.4	7	4.1	134	78.8	25	14.7
3	Establishment of environmental unit	7	4.1	127	74.7	10	5.9	19	11.2	7	4.1
4	Addressing unforeseen environmental and social effects	0	0	15	8.8	0	0	121	71.2	34	20
	How do you think the significance of institutional capacity for effective implementation and follow up of ESIA recommendation in Meta Abo Brewery?										
5	Financial capacity	160	94.1	10	5.9	0	0	0	0	0	0
6	Human resource capacity	162	95.3	8	4.7	0	0	0	0	0	0
7	Material resource capacity	153	90	17	10	0	0	0	0	0	0

What is the type of environmental pollution released from Meta Abo Brewery to the environment and community?											
8	Water pollution	166	97.6	4	2.4	0	0	0	0	0	0
9	Air pollution	0	0	132	77.8	0	0	28	16.5	10	5.9
10	Soil pollution	107	62.9	44	25.9	0	0	19	11.2	0	0
11	Noise pollution	0	0	0	0	0	0	41	24.1	129	75.9
Why environmental pollution is released to the environment from Meta Abo Brewery?											
12	Lack of proponent commitment	157	92.4	13	7.6	0	0	0	0	0	0
13	Lack of awareness of the proponent on ESMP	0	0	36	21.2	0	0	104	61.2	30	17.6
14	Weak institutional capacity of the factory	0	0	0	0	0	0	6	3.5	164	96.5
15	Lack of awareness of the proponent on ESIA legal frameworks	0	0	45	26.5	0	0	98	57.6	27	15.9
16	Weak enforcement mechanism by regulatory body	148	87.1	14	8.2	0	0	8	4.7	0	0
Does the public awareness created by the proponent on the environmental and social impacts from the Meta Abo Brewery?											
17	Positive impacts of the factory on the environment and local communities	0	0	52	30.6	0	0	118	69.4	0	0
18	Negative impacts of the factory on the environment and local communities	0	0	10	5.9	0	0	15	8.8	145	85.3
What do you think should be done by the proponent for effective implementation and follow up of ESIA recommendation in Meta Abo Brewery?											
19	Strengthening the implementation of ESMP	163	95.9	7	4.1		0	0	0	0	0
20	Strict regular internal ESIA monitoring and evaluation	157	92.4	13	7.6	0	0	0	0	0	0
21	Strengthening the institutional capacity	143	84.1	27	15.9	0	0	0	0	0	0
22	Using environmentally friendly technology	158	92.9	12	7.1	0	0	0	0	0	0

Source: Own Survey Data, 2020

According to the above table 5, analyzed data of this study regards the effective implementation and follow up of ESIA recommendation by the proponent in Meta Abo Brewery; 88.8% of respondents disagreed on the implementation of environmental and social management plans by the proponent in the Meta Abo Brewery project. This shows low attention given for the implementation of the environmental and social management plan of

Meta Abo Brewery. Concerning the regular internal ESIA monitoring, evaluation, and reporting, 78.8% of respondents disagreed. This indicates a lack of regular internal ESIA monitoring, evaluation, and reporting to ensure the implementation and follow up activities in this project.

Additionally, the analyzed data result about the establishment of an environmental unit for ESIA implementation, and follow up in the project shows that 74.7% of the respondents agreed on this issue. Even if the implementation of environmental and social management plans by the proponent was weak, this result indicates that the proponent has established the environmental unit for the implementation and follow-up of environmental and social impact assessment. Moreover, 71.2% of respondents disagreed on the issue of addressing the unforeseen environmental and social impact effects by the proponent during the ESIA implementation phase. These results point out that the unforeseen environmental and social impact effects were not addressed by the proponent for concerned regulatory bodies. Therefore, concerning the question about the ESIA implementation and follow up, it concludes that weak implementation and follow up by proponent in Meta Abo Brewery.

Regarding the significance of institutional capacity for effective ESIA implementation and follow-up in Meta Abo Brewery; 94.1% of respondents strongly agreed on the significance of the financial capacity for effective ESIA implementation and follow up. Additionally, 95.3% and 90% of respondents strongly agreed on the significance of human resources (environmental unit establishment) and material resources respectively for effective ESIA implementation and follow up of Meta Abo Brewery. This data result shows that institutional capacities have a critical role in effective ESIA implementation and follow up activities.

According to the analyzed data results about the type of environmental pollution discharged to the environment and community, 97.6% of the respondents strongly agreed on water pollution, 77.6% of respondents agreed on air pollution, 62.9% respondents strongly agreed on soil pollution and 75.6% respondents strongly disagreed on the noise pollution. This data results show the environmental pollution released to the environment and community from the Meta Abo Brewery was water, air, and soil pollution. Also, as the data results point out the noise pollution was not the problem of this factory.

On the other hand, concerning to the reasons of environmental pollution released to the environment and local community from Meta Abo Brewery; 92.4% and 87.1% of respondents strongly agreed for environmental pollution discharged to the environment and

community was due to lack of proponent commitment and weak enforcement mechanism of regulatory body respectively. Additionally, 61.2% of respondents disagreed on lack of awareness of the proponent on the environmental and social management plan, 96.5% of respondents strongly disagreed on the weak institutional capacity of the factory and 57.6% of respondents disagreed on the lack of awareness of the proponent on the ESIA legal frameworks for the reason of environmental pollution released to the environment and community from Meta Abo Brewery factory. This indicates that lack of proponent commitment and weak enforcement mechanism of ESIA implementation and follow up by regulatory body were the major reasons of environmental pollution released to the environment from the factory and lack of proponent awareness on ESMP, weak institutional capacity of this factory and lack of awareness of the proponent on ESIA legal frameworks were not the reason of environmental pollution released to the environment and community from Meta Abo Brewery.

Furthermore, regards to the question related to the public awareness created by the proponent on environmental and social impacts; 69.4% of respondents disagreed on the awareness created by the proponent on positive environmental and social impacts and 85.3% of respondents strongly disagreed on the awareness created by the proponent on negative environmental and social impacts during the implementation of the project. This indicates public awareness was not created by the proponent of Meta Abo Brewery on the positive and negative environmental and social impacts during project implementation.

Finally, the data analyzed concerning to the activities that should be done by the proponent for effective environmental and social impact assessment implementation and follow up shows that, 95.9% of respondents strongly agreed on strengthening the implementation of environmental and social management plans as one option for effective ESIA implementation and follow up. 92.4% of respondents also strongly agreed on strict regular internal monitoring and evaluation for the effectiveness of environmental and social impact assessment implementation and follow up carry out by the proponent. Additionally, 84.1% of respondents were strongly agreed on strengthening the institutional capacity for the effectiveness of ESIA implementation and follow up. Moreover, 92.9% of respondents were strongly agreed on using environmentally friendly technology for the effectiveness of environmental and social impact assessment implementation and follow up. The literature review also supports this result. Environmentally friendly technology reduces the negative impacts of the project and promote positive impacts, produce little waste and pollution,

utilizing the recycling and reuse of materials (Sarika, 2015). Additionally, the proponent of the project has the responsibility to use environmentally friendly technology during project implementation.

Hence, all data results stated above indicate that strengthening the implementation of environmental and social management plan activities such as conducting regular internal monitoring and evaluation, strengthening the institutional capacity and using environmentally friendly technology were the major determinants that should be implemented by the proponent for effective environmental and social impact assessment implementation and follow up in Meta Abo Brewery.

Therefore, according to the questionnaire data results of this study, the environmental and social impact assessment recommendation has not implemented and followed by the proponent of Meta Abo Brewery Share Company because the environmental and social management plan, regular internal monitoring and evaluation, and addressing unforeseen environmental and social effects were not implemented by the proponent in the project. This shows weak implementation of environmental and social impact assessment by the proponent. In addition to this, different environmental pollutions were also discharged to the environment and have been affecting the communities. The proponent also didn't make awareness for the local communities on the negative and positive impacts of the project. These all indicate weak implementation of environmental and social impact assessment recommendation in Meta Abo Brewery.

On the other hand, the focus group discussion about the perception of residents on the implementation and follow up of environmental and social impact assessment recommendation by proponent was made with relevant experts selected from Sebeta City Environment, Forest and Climate Change Authority, Sebeta City Health Office, Sebeta City Administrative Office, Sebeta City Investment Office and Sebeta City Labor and Social Affairs Office.

Accordingly, the discussants said that;

“The implementation and follow up of ESIA recommendation by proponent of Meta Abo Brewery was weak. This was due to weak implementation of ESMP activities such as ESIA monitoring and evaluation. The proponent didn't meet his responsibilities to the approval conditions and other responsibilities imposed on

him. On the other hand, the proponent has a weak relationship with communities and regulatory bodies”.

The focus group discussion data results about the perception of residents on the implementation and follow up of environmental and social impact assessment recommendation by proponent of Meta Abo Brewery shows that the proponent has not achieved the approval conditions of environmental and social impact assessment study and other requirements imposed on him concerning to Meta Abo brewery. The focus group discussion results also indicate that weak implementation and follow up achievements of ESIA recommendation due to weak implementation of environmental and social management plan such as environmental and social impact assessment monitoring and evaluation. Additionally, the above focus group discussion results show that the proponent of Meta Abo Brewery has not accomplished his responsibilities and the proponent has weak relationship with local communities and regulatory bodies. This may affect the sustainability and acceptability of the project.

Thus, depending on the closed-ended questions and focus group discussion data results about the perception of residents on the implementation and follow up of environmental and social impact assessment recommendation by proponent in Meta Abo Brewery, the study points out that weak implementation and follow up of ESIA recommendation by proponent. This was due to weak implementation of environmental and social management plan activities such as weak internal ESIA monitoring and evaluation, lack of addressing the unforeseen environmental and social effects and other ESIA approval conditions. The proponent had also lacked commitment for environmental and social impact assessment implementation and follow up. In addition to this, the proponent also didn't create awareness for communities on negative and positive environmental and social impacts; weak interrelations among the local communities and proponent, the pollution discharged to the Abo River from the Meta Abo Brewery and affected the downstream local communities were the major indicators of weak implementation and follow up of environmental and social impact assessment recommendation by proponent in Meta Abo Brewery.

CHAPTER FIVE

5. CONCLUSIONS AND RECOMMENDATIONS

5.1. Conclusions

Now a day, the issue of the implementation and follow up of environmental and social impact assessment recommendation is becoming the concern of the world. Hence, implementation and follow up is one of the main processes of environmental and social impact assessment that needs critical attention to bring environmentally friendly development. This study tried to assess the implementation mechanism and status of environmental and social impact assessment monitoring and evaluation, study the adequacy of the legal and administrative framework of the implementation and follow up of environmental and social impact assessment and analyze the perception of residents for the implementation and follow up of environmental and social impact assessment recommendation by proponent in Meta Abo Brewery in Sebeta City.

Accordingly, this study identified that, the implementation mechanism of environmental and social impact assessment monitoring and evaluation. These implementation mechanisms include identifying monitoring objectives, scope of monitoring, required information, gathering information, reporting monitoring results, evaluating results, decision-making, and taking corrective actions. This shows the operational structure of environmental and social impact assessment monitoring and evaluation in development project. However, the implementation mechanism of ESIA monitoring and evaluation was not well practiced by the proponent and regulatory bodies in Meta Abo Brewery.

The study also identified weak implementation status of environmental and social impact assessment monitoring and evaluation in Meta Abo Brewery due to weak implementation of ESIA monitoring and evaluation by regulatory bodies and proponent, weak cooperation's among regulatory bodies and proponent, weak institutional capacity, and weak managerial commitments and lack of adequate and updated legal and administrative frameworks of ESIA monitoring and evaluation. But, the proponent and regulatory bodies should have to implement the ESIA monitoring and evaluation in Meta Abo Brewery. Additionally, the ESIA monitoring and evaluation mechanisms must be practiced to bring effective implementation of ESIA monitoring and evaluation.

On the other hand, the study also argued that the Oromia Regional State Environment, Forest and Climate Change Authority and Sebeta City Environment, Forest and Climate Change

Authority have been conducting the environmental and social impact assessment monitoring and evaluation in Meta Abo Brewery. This may be due to the approval of the environmental and social impact assessment study report of Meta Abo Brewery was made by Sebeta City Environment, Forest and Climate Change Authority. The Oromia region EFCCA also has the responsibility to monitor and evaluate the implementation of development projects in the region. The study also points out weak capacity of human and material resources of the proponent to conduct internal ESIA monitoring and evaluation. However, the brewery has a strong capacity for financial resource. Effective implementation of ESIA monitoring and evaluation depends on the institutional capacity of proponent and regulatory bodies.

Based on the adequacy of the legal framework of the implementation and follow up of environmental and social impact assessment recommendation, the study argued that constitution of FDRE, environmental policy, environmental impact assessment proclamation 299/2002, environmental pollution control proclamation, environmental impact assessment guideline, and environmental standards are the working legal frameworks for the implementation and follow up of ESIA recommendation. In addition to this, the environmental and social impact assessment monitoring and evaluation, and environmental auditing guidelines should be adopted for effective implementation and follow up of ESIA recommendation. The study also identified the lack of adequate and updated the legal framework of environmental and social impact assessment implementation and follow up. Additionally, the lack of effective legal procedure to take corrective actions on the proponent fails the approval conditions of ESIA and other legal requirements.

On the other hand, concerning to the adequacy of the administrative framework of the implementation and follow up ESIA recommendation, the study identified Environmental Protection Organs Establishment Proclamation No. 295/2002 and Definitions Powers and Duties of Executive Organs of Federal Democratic Republic of Ethiopia Proclamation No. 916/2015 (powers and duties of Environment, Forest and Climate Change Commission) as the working administrative frameworks for the implementation and follow up of ESIA recommendation in Meta Abo Brewery. Those administrative frameworks were not enough for effective implementation and follow up of ESIA, and Environmental Protection Organs Establishment Proclamation No. 295/2002 requires modification with the current structural arrangements. As this study argued that, the effective administrative frameworks are required for effective ESIA implementation and follow up. The ESIA monitoring and evaluation

required to be conducted by regulatory body and proponent should be assisted by the legal frameworks and approval conditions.

The major strengths of legal and administrative frameworks identified were the availability of some ESIA frameworks used as a cornerstone for other legal and administrative frameworks and institutional arrangements at the federal and regional levels. The main weaknesses of ESIA legal and administrative frameworks identified by the study were also lack of legal frameworks such as ESIA monitoring and evaluation, and environmental audit guidelines, lack of updated legal and administrative frameworks, weak enforcement mechanism, social aspects of sustainable development did not get attention in the legal framework, legal and administrative frameworks adopted at the federal level were not translated to local languages for active public participation in ESIA process, the concept of ESIA monitoring and auditing was not clear to implement in the development project, lack of well-defined roles and responsibilities of federal and regional environmental authority, lack of institutional capacity and cooperation's, and weak managerial commitment due to political influence of ESIA implementation and follow up in development projects. The study also argued the implementation and follow up of ESIA in Meta Abo Brewery enforced by the regulatory body depends on the approval conditions and other required legal framework.

Concerning to the findings of this study, the federal Environment, Forest and Climate Change Commission and Regional Environment, Forest and Climate Change Authority should have to update the working legal and administrative frameworks and formulate essential technical guidelines that support the effective implementation and follow up of ESIA recommendation in development project. Furthermore, regarding to the implementation and follow up of environmental and social impact assessment recommendation by proponent of Meta Abo Brewery, the study identified that weak implementation and follow up of ESIA recommendation by proponent of Meta Abo Brewery. The commitments of proponent has significant role in the implementation and follow up of ESIA recommendation in the development projects.

Even though the environmental unit was established by the proponent, the environmental and social management plan such as internal ESIA monitoring and evaluation were not implemented as stated in the ESIA study report of Meta Abo Brewery. The unforeseen environmental and social effects were not reported for concerned environmental authorities. The study identified the significance of institutional capacity for effective implementation

and follow up of ESIA recommendation because human, financial, and material resources have a major contribution to effective implementation and follow up of ESIA recommendation in Meta Abo Brewery.

On the other hand, as the study argued that water pollution, air pollution, and soil pollution were the environmental pollution released to the environment and the local community from Meta Abo Brewery. But, no noise pollution affects the environment and community regarding this case study project. The environmental pollutions released to the environment were due to a lack of proponent commitment and a weak enforcement mechanism for environmental and social impact assessment implementation and follow up by the regulatory body. However, the lack of proponent awareness on ESMP and ESIA legal frameworks, and weak institutional capacity were not the main cause of environmental pollution released to the environment by the proponent. In addition to this, the study argued that the public awareness was not created by the proponent on positive and negative environmental and social impacts. The proponent has the responsibility to implement the project approval conditions to bring environmentally friendly development.

Finally, the study identified that strengthening the implementation of environmental and social management plans, strict regular internal monitoring and evaluation, strengthening the institutional capacity, and using environmentally friendly technology which should be done by the proponent for effective implementation and follow of environmental and social impact assessment recommendation in Meta Abo Brewery.

Depending on this, it is possible to conclude that weak implementation and follow up of environmental and social impact assessment recommendation by proponent of Meta Abo Brewery because the proponent of this brewery didn't implement the responsibilities imposed on him during environmental and social impact assessment approval conditions.

5.2.Recommendations

Based on the findings of this research, the following recommendations are forwarded to improve the implementation and follow up of environmental and social impact assessment recommendation of Meta Abo Brewery.

Recommendations for Federal Environment, Forest and Climate Change Commission

1. It is better to update the working legal and administrative frameworks such as Environmental Policy of Ethiopia, EIA proclamation 299/2002, Environmental Protection Authority Organs establishment proclamation 295/2002, EIA procedural guideline 2003, Environmental pollution Control proclamation 300/2002 and other frameworks in order to support the implementation and follow up of ESIA recommendation. Especially, in the areas which need further modifications regarding to the roles and responsibilities of the administrative bodies from Federal to Woreda level for effective implementation and follow up ESIA recommendation.
2. Many technical guidelines such as ESIA monitoring and evaluation and environmental audit guidelines should be in place for effective implementation and follow up of environmental and social impact assessment recommendation.
3. It is better to integrate the social aspects in the environmental policy, strategy, guidelines and especially, in environmental impact assessment guideline to give attention for social impacts which may results from project implementation.
4. The structural arrangement of environmental protection institution could be the same from federal to woreda level and independent.

Recommendations for Oromia Region Environment, Forest and Climate Change Authority and Sebeta City Environment, Forest and Climate Change Authority

1. Oromia Region Environment, Forest and Climate Change Authority and Sebeta City Environment, Forest and Climate Change Authority should have to implement the ESIA monitoring and evaluation in Meta Abo Brewery.
2. Oromia Region Environment, Forest and Climate Change Authority and Sebeta City Environment, Forest and Climate Change Authority should have to follow the implementation mechanisms of ESIA monitoring and evaluation in Meta Abo Brewery. Effective ESIA monitoring and evaluation mechanisms includes identifying

monitoring objective, scope, required information, gathering information and analysis, reporting monitoring results, evaluating results, presenting results, decision-making and taking corrective actions.

3. It is better to strength the institutional capacity and collaboration's among the Oromia Environment, Forest and Climate Change Authority, Sebeta City Environment, Forest and Climate Change Authority, Proponent of Meta Abo Brewery and other concerned stakeholders, improve the managerial commitment specifically for budget allocation, enforce the implementation and follow up of ESIA recommendation in Meta Abo Brewery.
4. The Oromia Region Environment, Forest and Climate Change Authority and Sebeta City Environment, Forest and Climate Change Authority is required to translate ESIA legal and administrative frameworks to local languages for active participation of local communities in the ESIA process.

Recommendations for Proponent of Meta Abo Brewery

1. The proponent of the brewery project should have to implement and follow up the environmental and social impact assessment recommendations including the implementation of ESMP, addressing unforeseen environmental and social effects for concerned bodies, internal ESIA monitoring, evaluation and reporting, strengthening the institutional capacity, and using environmentally friendly technology and other approval conditions for effective implementation and follow up of ESIA in Meta Abo Brewery.
2. It is better to create public awareness on both positive and negative environmental and social impacts during the implementation of the project by the proponent.

In Conclusion, the Federal Environment, Forest and Climate Change Commission, Oromia Region Environment, Forest and Climate Change Authority and Sebeta City Environment, Forest and Climate Change Authority, the proponent of Meta Abo Brewery, local communities and other concerned stakeholders should have to work in collaboration for the future improvement of the implementation and follow up of environmental and social impact assessment recommendation in Meta Abo Brewery.

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Appendixes

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Profile of Study Participants

Appendix 1: Key Informant Interview Participants

S/No	Name of Interviewee	Sex	Organization	Position	Date of interviewed
1.	Tolosa Yadessa	M	EFCCC	Director of ESIA Directorate	20/02/2020
2	Leake Tesfahunegn	M	EFCCC	Senior ESIA Expert	20/02/2020
3	Abebe Tolcha	M	EFCCC	Senior ESIA Expert	20/02/2020
4	Zebdar Wakjira	F	OEFCCA	ESIA Case Team Leader	25/02/2020
5	Gemeda Kebebew	M	OEFCCA	Senior ESIA Expert	25/02/2020
6	Kelbessa Bekuma	M	OEFCCA	Senior ESIA Expert	25/02/2020
7	Wondimu Kebede	M	SCEFCCA	Senior Environmental Compliance Expert	02/03/2020
8	Adugna Lemma	M	SCEFCCA	Senior Environmental Pollution Monitoring and Evaluation Expert	02/03/2020
9	Mensur Mohamed	M	SCEFCCA	Senior ESIA Expert	02/03/2020
10	Abona Tesfaye	M	MAB	Environment, Health and Safety Manager	04/03/2020
11	Belay Mengistu	M	MAB	Senior Environmentalist	04/03/2020

Appendix 2: Focus Group Discussion Participants

S/No	Name of discussants	Sex	Organization	Position	Date
1.	Wondimu Kebede	M	SCEFCCA	Senior Compliance Expert	06/03/2020
2.	Adugna Lemma	M	SCEFCCA	Pollution Monitoring and Evaluation Senior Expert	06/03/2020
3.	Diriba Kebede	M	SCHO	Environmental Health	06/03/2020
4.	Gadissa Birru	M	SCIO	Project Monitoring and Evaluation Expert	06/03/2020
5.	Tadesse Abera	M	SCLSAO	Occupational Safety Expert	06/03/2020
6.	Sintayehu Chala	M	SCAO	Senior Development Affairs Expert	06/03/2020

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Appendix 3: Closed-ended Questions

The closed-ended Questions on the perception of residents on the implementation and follow up of ESIA recommendation by proponent in Meta Abo Brewery in the Gote 01 and 02 of 05 Kebele in Sebeta City

Dear Respondents:

These below questions are to complete the study conducting in a partial fulfillment of the requirements for the degree of Master of Arts in Development Studies (Environment and Sustainable Development) on entitled; ‘Evaluation of the Implementation and Follow up of Environmental and Social Impact Assessment Recommendation: The Case of Meta Abo Brewery’ in Sebeta City. I kindly request you to provide accurate information concerning the below questions on the perception of residents on the implementation and follow up of ESIA recommendation by proponent in Meta Abo Brewery. The information you give is very important to complete this study. Since your responses will be kept confidential and used only for this study. In the end, I am grateful for your vital response and the time you devote.

Note:

- ✚ No need of writing your name
- ✚ Please provide your answer to the following questions.

A. General Information About Respondents:

1. What is your sex? 1. Male 2. Female
2. What is your age? 1. 18-25 2. 26-35 3. 36-45 4. 46-60 5. More than 60
3. What is your marital status? 1. Single 2. Married 3. Divorced 4. Widowed
4. How long have you been lived in the Meta Abo Brewery area? 1. Less than 3 years
2. 3-5 years 3. 6-10 years 4. More than 10 years
5. What is your educational level? 1. Illiterate 2. Primary education (1-8) 3. Secondary education (9-12) 4. Diploma and Degree
6. What is your occupation? 1. Farmer 2. Government employee 3. Daily labors 4. Merchant
7. What is your religion? 1. Orthodox 2. Catholic 3. Muslim 4. Protestant 5. Wakeffata

B. Main Questionnaires for Analyzing the Perception of Residents on the Implementation and Follow up of ESIA Recommendation by Proponent in Meta Abo Brewery

Please indicate your degree of agreement or disagreement for the following each question by putting tick mark (√) under one of the Likert scales type items from 1 to 5.

Where, 1 = Strongly Agree, 2 = Agree, 3 = Neutral, 4 = Disagree, 5 = Strongly Disagree

S/No	Items	Response				
Do you think the implementation and follow up of ESIA recommendation are effectively done by the proponent in Meta Abo Brewery?		1	2	3	4	5
1	Implementation of environmental and social management plan					
2	Regular internal ESIA monitoring, evaluation and reporting					
3	Establishment of environmental unit					
4	Addressing unforeseen environmental and social effects					
How do you think the significance of institutional capacity for effective implementation and follow up of ESIA recommendation in Meta Abo Brewery?		1	2	3	4	5
5	Financial capacity					
6	Human resource capacity					
7	Material resource capacity					
What is the type of environmental pollution released from Meta Abo Brewery to the environment and community?		1	2	3	4	5
8	Water pollution					
9	Air pollution					
10	Soil pollution					
11	Noise pollution					
Why environmental pollution is released to the environment from Meta Abo Brewery?		1	2	3	4	5
12	Lack of proponent commitment					
13	Lack of awareness of the proponent on ESMP					
14	Weak institutional capacity of the factory					
15	Lack of awareness of the proponent on ESIA legal frameworks					
16	Weak enforcement mechanism by regulatory body					

Does the public awareness created by the proponent on the environmental and social impacts from the Meta Abo Brewery?		1	2	3	4	5
17	Positive impacts of the factory to the environment and local communities					
18	Negative impacts of the factory on the environment and local communities					
What do you think should be done by the proponent for effective implementation and follow up of ESIA recommendation in Meta Abo Brewery?		1	2	3	4	5
19	Strengthening the implementation of ESMP					
20	Strict regular internal ESIA monitoring and evaluation					
21	Strengthening the institutional capacity					
22	Using environmentally friendly technology					

Appendix 4: Key Informant Interview Checklist

A. Key Informant Interview Checklist on the Implementation Mechanism and Status of ESIA Monitoring and Evaluation

I. Key Informant Interview Checklist on the Implementation mechanism and status of ESIA Monitoring and Evaluation

The key informant interview with concerned informants from Sebeta City Environment, Forest and Climate Change Authority, and Meta Abo Brewery about the implementation mechanism and status of ESIA monitoring and evaluation in Meta Abo Brewery.

Name of interviewee: _____

Sex: _____

Organization: _____

Position: _____

Educational Background: _____

Date of interviewed: _____

1. What is the implementation mechanism of ESIA monitoring and evaluation?

2. How to operate ESIA monitoring and evaluation in practice?
3. What is the implementation status of ESIA monitoring and evaluation?
4. What are the determinants of effective ESIA monitoring and evaluation?
5. How is the institutional capacity and cooperation on the ESIA monitoring and evaluation?
6. How is the managerial commitment to implement ESIA monitoring and evaluation?
7. Do you have any additional comments on the implementation mechanism and status of ESIA monitoring and evaluation?

B. Key Informant Interview Checklist on the Adequacy of Legal and Administrative Framework for the Implementation and Follow up of ESIA Recommendation

I. Key Informant Interview Checklist on the Adequacy of Legal Framework for the Implementation and Follow up of ESIA Recommendation

The key informant interview with concerned informants from the Federal Environment, Forest and Climate Change Commission, Oromia Environment, Forest and Climate Change Authority and Sebeta City Environment, Forest and Climate Change Authority regarding the adequacy of the legal framework for the implementation and follow up of ESIA recommendation in Meta Abo Brewery.

Name of interviewee: _____

Sex: _____

Organization: _____

Educational Background: _____

Position _____

Date of interviewed: _____

1. What are the working legal frameworks for the implementation and follow up of ESIA recommendation in Meta Abo Brewery? Are the current legal frameworks effective and functional?
2. Does the legal framework for the implementation and follow up of ESIA recommendation adequate and updated?
3. What legal frameworks should be in place for effective implementation and follow up of ESIA recommendation in Meta Abo Brewery?
4. What legal procedures are in place to enforce and take actions on the projects that fail the implementation and follow up of ESIA recommendation conditions?
5. Do you have any additional comments?

II. Key Informant Interview Checklist on the Adequacy of Administrative Framework for the Implementation and Follow up of ESIA Recommendation

The key informant interview with concerned informants from the Federal Environment, Forest and Climate Change Commission, Oromia Environment, Forest and Climate Change Authority and Sebeta City Environment, Forest and Climate Change Authority regarding the adequacy of the administrative framework for the implementation and follow up of ESIA recommendation in Meta Abo Brewery.

Name of interviewee: _____

Sex: _____

Organization: _____

Educational Background: _____

Position: _____

Date of interviewed: _____

1. What are the working administrative frameworks for the implementation and follow up of ESIA recommendation?
2. Does the administrative framework for the implementation and follow up of ESIA recommendation adequate and updated?
3. What administrative frameworks should be in place for effective implementation and follow up of ESIA recommendation?
4. How the regulatory bodies enforce the proponent to fulfill the ESIA study approval conditions and other legal requirements?
5. Do you have any additional comments?

Appendix 5: Focus Group Discussion Checklist

The focus group discussion with concerned respondents from the SCEFCCA, SCHO, SCIO, SCWSAO, and SCAO regarding to the implementation mechanisms and status of ESIA monitoring and evaluation, adequacy of the legal and administrative framework for the implementation and follow up of ESIA recommendation, and perception of residents on the implementation and follow up of ESIA recommendation by proponent in Meta Abo Brewery.

A. Focus Group Discussion Checklist on the Implementation Mechanism and Status of ESIA Monitoring and Evaluation in Meta Abo Brewery

1. How is the implementation of ESIA monitoring and evaluation in Meta Abo Brewery?

2. Which level of government environmental authority has been conducting ESIA monitoring and evaluation in Meta Abo Brewery?
3. Does the proponent have the capacity to implement internal ESIA monitoring and evaluation in Meta Abo Brewery?
4. Do you have additional comments?

B. Focus Group Discussion Checklist on the Adequacy of Legal and Administrative Framework for the implementation and follow up of ESIA recommendation in Meta Abo Brewery

1. Does the current legal framework are effective to enforce the proponent for the implementation and follow up of ESIA recommendation in Meta Abo Brewery?
2. What is the strength and weakness of the legal framework for the implementation and follow up of ESIA recommendation?
3. Does the current administrative framework are effective for the implementation and follow up of ESIA recommendation in Meta Abo Brewery? Explain
4. Does the local government has enough administrative capacity for the implementation and follow up of ESIA recommendation in Meta Abo Brewery?
5. What is the strength and weakness of the administrative framework for the implementation and follow up of ESIA recommendation?

C. Focus Group Discussion Checklist on the Perception of Residents on the Implementation and Follow up of ESIA Recommendation in Meta Abo Brewery

1. Does the proponent of Meta Abo Brewery achieve his responsibilities in implementing and follow up of ESIA recommendation?
2. What do you think the implementation and follow up level of ESIA recommendation by proponent of Meta Abo Brewery?
3. Does the proponent of Meta Abo Brewery have good relation with local communities and regulatory bodies?
4. Do you have additional comments concerning the Perception of Residents on the Implementation and Follow up of ESIA Recommendation in Meta Abo Brewery?

Appendix 6: Document Review Checklist Criteria

The document review criteria checklists concerned with the Meta Abo Brewery ESIA study report, OEFCCA, SEFCCA, and Meta Abo Brewery annual and monthly reports regarding the implementation of ESIA monitoring and evaluation in Meta Abo Brewery.

Environmental and Social Impacts (Review Criteria)	Frequency of monitoring and evaluation planned on ESIA study report	Monthly and annual reports of ESIA monitoring and evaluation from review results
Healthy and safety risk of all workers		
Pollution of water bodies due to process effluent discharge		
Noise pollution during operation		
Air pollution due to gaseous emissions		
Ambient air pollution due to odor		
Pollution due to solid wastes		
Impacts due to energy consumption		

Appendix 7: Summary of Plagiarism Report



Document Information

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Similarity	1%
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Sources included in the report

J	Evaluation of the environmental policy and impact assessment process in Ethiopia URL: 453d095e-863d-41ec-b78d-9d80e2b64f9b Fetched: 3/13/2019 6:30:51 AM		4
W	URL: https://www.ajol.info/index.php/hlr/article/download/98572/87838 Fetched: 10/3/2019 12:30:31 AM		2
SA	URL: Dawit thesis 2020.docx Fetched: 6/10/2020 6:28:00 PM		1
SA	URL: Kibret-3.docx Fetched: 5/18/2020 10:16:00 AM		1
SA	URL: management main thesis - updatet.docx Fetched: 1/20/2018 5:56:00 AM		2
W	URL: https://docplayer.net/91637690-The-federal-democratic-republic-of-ethiopia-ministr... Fetched: 2/22/2020 2:59:40 PM		3