
# ST. MARY'S UNIVERSITY

# SCHOOL OF GRADUATE STUDIES

# PERCEIVED REASON FOR PROGRAM DELAY: THE CASE OF ETHIOPIAN SANITATION AND HYGIENE IMPROVEMENT PROGRAM

**BY**

**MESFIN SAHELE**

**JUNE 2019**

**ADDIS ABABA, ETHIOPIA**

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# ST. MARY'S UNIVERSITY
# SCHOOL OF GRADUATE STUDIES
# FACULTY OF BUSINESS

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## APPROVED BY BOARD OF EXAMINERS

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Addis Ababa, June 2019
Mesfin Sahele

**Acronyms**

| | |
|---|---|
| AutoCad | Automated Computer Aided Design |
| AWD | Acute Watery Diarrhea |
| BCC | Behavior Change Communication |
| CLTSH | Community Led Total Sanitation and Hygiene |
| EA | Executing Agency |
| ESHIP | Ethiopian Sanitation and Hygiene Improvement Program |
| FMoH | Federal Ministry of Health |
| IEC | Information Education Communication |
| IFRCS | International Federation of Red Cross and Red Crescent Societies |
| MDG | Millennium Development Goal |
| NCE | No Cost Extension |
| ODF | Open Defecation Free |
| PMBOK | Project Management Body of Knowledge |
| SG | Sub-Grantee |
| SNNPR | Southern Nation, Nationalities and Peoples Region |
| TA | Technical Assistant |
| WASH | Water Sanitation and Hygiene |

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***Abstract***

*This study was done to investigate the perceived reasons for program delay and employed census method to collect data from 46 people working in the program from federal and woreda levels. The study mainly used closed ended questionnaire organized in 3-point Likert scale. The study found out that the program had been implemented under the context of low per diem rate, lack of transport facilities, lengthy budget transfer and slow financial settlement environment. Thus, the study concludes that low per diem rate and civil unrest or political instability were the leading internal and external perceived reasons for the program delay. In summary, the study recommends improving per diem, tackle the transport problem including the provision of timely technical support. Moreover, the woreda is advised to prepare contingency plan to reduce impact of AWD and civil unrest. Finally, deploying roving finance helps to speedup financial settlement.*

***Keywords:*** *ESHIP, Ethiopia, FMoH, NCE, ODF, PCM, sanitation and hygiene*

# CHAPTER I

# INTRODUCTION

## 1.1 Background

Project success is affected by many factors and projects may fail, delay or be challenged. According to Standish (1995) cited in (Lech, 2013), a failed project is a project that is cancelled or abandoned. If a project does not start productively, or is abandoned shortly after the productive start, it should surely be treated as a failure. Challenged projects are defined as those which exceeded the budget, exceeded the schedule, and do not supply the required functionality (Ibid).

Similarly, one can define a "challenged project" as one that is not satisfy one or more of the project success criteria commonly referred to as the "iron triangle". In contrast, a "successful" project is one that meets all the three criteria. In this way, one can obtain a logically consistent categorization of projects Standish (1995) cited in (Lech, 2013).

Baccarini (1999) cited in Lech (2013) concluded that project success should be measured in two categories: product success, which involves meeting the customer's organizational expectations, and project (management) success, which involves satisfying time, budget, and functionality criteria. Another conclusion was that a project can be successful in one of the categories but unsuccessful in another.

Project delay is a universal evident reality. Project delay can be defined as execute later than planned or the prolonging of the implementation period that all the concerned parties agreed for the project. The word "delay'' refers to something happening later than planned, expected, specified in a contract or beyond the date that the parties agreed upon for the delivery of a project Kikwasi (2012). It is a project slipping over its planned schedule. Lo, Fung and Tung (2006) cited in Kikwasi (2012) define delay as the slowing down of work without stopping implementation entirely.

It is very rare to see a project completed on time Haseeb et al. (2011). Delay means loss of income according to and for the owner or client. In case of contractor, delay refers to the higher costs due to longer work time, labor cost increase and higher fabrication costs. There are many unpredictable factors and variables resulting from various sources affecting projects. Some main sources are the involvement and performance of parties, contractual relations, environmental and site conditions, resources availability etc. (Ibid).

The causes of project delays vary according to and due to the faults and weaknesses of the parties involved in the project management. The adverse political climate has served to slow progress against development objectives and prevent essential movement in-country to implement, monitor, and follow up on project activities. In fact, these delays were the impetus behind the no-cost extension (NCE) request to ensure all timely follow up and monitoring was completed as proposed (WASHplus, 2016).

Additionally, natural disasters delayed and impeded progress by damaging and destroying a number of newly constructed latrines. This forced households, which had gone through the CLTS process and constructed latrines, to revert to using unimproved sanitation while they remobilized and reconstructed (WASHplus, 2016).

The success of the NCE period shows the importance of ensuring sufficient time invested in sustainability. However, due to the political climate and delays, a number of key follow-up activities were pending. The NCE allowed WASHplus to maintain relationships with local government and target communities and continue to provide follow up, support, and encouragement aligned with WASHplus objectives (WASHplus, 2016).

Noulmanee et al. (1999) cited in Kikwasi (2012) investigated causes of delays in highway construction in Thailand come from inadequacy of sub-contractors, organizations that lack sufficient resources and bureaucratic approval procedures in administrative government departments Kikwasi (2012). Sambasivan and Soon (2007) cited in Kikwasi (2012) identify most important causes of delay in Malaysian construction industry was contractor's improper planning, inadequate contractor experience, inadequate client's finance and payments for

completed work, problems with subcontractors, shortage in labor supply and lack of communication between parties.

Chan and Kumaraswamy (1997) cited in Kikwasi (2012) identified principal delay factors which are: poor supervision, unforeseen site conditions and slow decision making. Delay in construction project is considered one of the most common problems causing a multitude negative effect on the project and its participating parties. Therefore, it is essential to identify the actual causes of delay in order to minimize and avoid the delays.

Abebe (2015) noted that project delay was mainly associated with absence of programming expert with the client and contractor, attention to preparation and timely submission, lack of commitment from the contractor and consultant to act on time, contractors' unrealistic project, absence of sufficient and enforceable contractual remedies.

Moreover, the failure to use appropriate method of programming, realistic work breakdown structures and failure to use realistic project link Abebe (2015) and Habtemariam (2016). According to Endale (2016), the major causes of delay in the construction of 40/60 saving houses project were late and insufficient resource supply, financial difficulties faced by the contractor, delayed payments to contractors, poor site management, ineffective planning and scheduling, late design review and approval and slowness in decision making process.

The three years Ethiopia Sanitation and Hygiene Improvement Program (ESHIP) has five components to work with that includes: community sanitation & hygiene, institutional sanitation & hygiene, capacity building, advocacy, and monitoring & evaluation ESHIP unpublished annual report (2016); Program Cooperation Agreement (2017). The program was signed in June 2012 and scheduled to end in June 2015 with a total program budget of 5.1 million USD, 4 million estimated target beneficiaries of which 40% were expected to live in open defecation free (ODF) environment. Thus, the Federal Ministry of Health has been the program Executing Agency while 4 regional governments of Amhara, Tigray, Oromia and SNNPR and 40 Districts have been sub-grantees (SGs) and direct implementer of the program.

Accordingly, the program spent 45.3% (2,315,225 USD) and supported 58.6% (2,342,882) people to leave in open defecation free environment FMoH-ESHIP (2015) over the course of three years (Jul 2012 – June 2015) implementation period. Thus, it is evident that the program exceeded the 1.6 million targets expected at the end of 2015. However, less than 50% of the program budget utilized or the budget was underutilized in the same period. Hence, there was an interest from donor and executing agency to fully utilize the budget and reach the remaining program target. Accordingly, the program was extended for one more year i.e., to June 2016 with no cost extension Program Cooperation Agreement (2015); FMoH (2017). Since June 2015, the ESHIP has been in a No Cost Extension (NCE) with the last was ended in March 2018.

The design of the current ESHIP has spanned three years. This low cost, subsidy free hygiene and sanitation program intervention enabled individual households to construct and use pit latrines made of local materials, stop open defecation, washing hands after visiting the toilet and practice safe water storages. In addition, the program also addressed the hygiene and sanitation gaps among school children. Hence, capacity building activities like Training of Trainer on collective behavior change approach, experience sharing, material support, recruiting and deploying technical assistants and the likes were also done by the program. Moreover, advocacies were designed to gain the support of political leaders and to promote and create awareness on the benefit of handwashing and latrine use during the global handwashing and toilet days. Finally, the program also included monitoring and evaluation to continuously and periodically follow up and support the planning and the execution of the program.

The program has so far supported 4.46 million people to live in open defecation free environment and utilized 4.6 million USD FMoH-ESHIP (2018). However, the program is delayed and forced to demand seven no cost extensions in order to realize the program objective and utilize the budget. Hence, the study investigated the delay factors and drew lessons that helped to advise the current program and to help feed in future program design and implementation accordingly.

## 1.2 Statement of the Problem

ESHIP has been implemented by the Federal Ministry of Health (FMoH) (Executive Agency-EA) in partnerships with Amhara, Tigray, Oromia and SNNPR regional government health bureaus and 40 woreda health offices found in the four regions. The program has a mix of support at national, regional and local levels. Accordingly, the program supported capacity development measures designed to enable the regional and woreda level health structures to realize the required acceleration in implementation and apply community participatory approaches and strengthen community capacity and resolve to maintain their sanitation facilities (FMoH, 2012).

The overall objective of ESHIP has been to support the initiative of the government to scale up a well-organized and systematic sanitation and hygiene interventions that contribute towards the country to meet MDGs.

Therefore, the program was designed to include five components namely: community and institutional hygiene and sanitation, capacity building, advocacy and IEC/BCC and monitoring and evaluation. Each component is further divided into activities. The program activities focused on creating demand and access through community-led approaches and sanitation marketing to generate enabling conditions for households, and institutions to enhance access to improved, adequate and separate latrine with hand washing facilities through building capacity in community mobilization, experience sharing, trainings and technical assistance.

The program has been carefully monitored and evaluated using a variety of participatory tools and approaches to ensure proper implementation throughout the duration of the interventions. Similarly, the program has been using the existing government structures and systems for implementation in a way to contributing for the improvement of the hygiene and sanitation in the country and enable to meet the MDG target.

The Program Coordinating Mechanism (PCM) was established by the Ministry and its developmental partners to act as an advisory think-tank on hygiene and sanitation promotion and policy dialogue, support the coordination and alignment of partner efforts under the

FMOH. Therefore, the program had been contributing to fill the gaps by complementing the government efforts in the hygiene and sanitation sector. The FMoH has been managing the program fund and disbursed the earmarked budget to the regions and woredas as per the fund management system.

The current ESHIP is composed of ESHIP 1 and 2. ESHIP 1 was supposed to end in June 2015 but has been granted four consecutive no cost extensions and was closed in March 2018, (Program Cooperation Agreement, 2017). This clearly shows that the program time extended beyond its completion date - delayed by 2 years and 9 months.

Current research that discuss causes of project delay tend to mainly focus on the construction industry. Hence, the subsequent paragraph presents summary of the literature findings. Thus, it is noted that poor communication, inexperienced project managers, contract variations and inadequate resources as being some of the major contributors to poor time performance that resulted in many major projects to fail to meet scheduled deadlines (Ndungu, 2014).

According to WASHplus (2009), the political unrest and violence during the project period has served to slow progress and prevent essential movement in-country to implement, monitor, and follow up on project activities. Additionally, natural disasters delayed and impeded progress by damaging and destroying a number of newly constructed latrines.

Moreover, financial procedure caused project delay in Indonesia as each district needed complete financial clearance before new advances were given, resulting in stop-start programming IFRCS (2018). Likewise, Devarpiya & Ganesan (2002) and Thomas (2002) cited in Ndungu (2014) obtained that poor financing arrangements, inadequate construction funding and budgets, bad cash flow and inaccessibility to formal structured finance have a heavy bearing on the project smooth running leading to delayed completion of a project.

Noulmanee et al. (1999) cited in Kikwasi (2012) concluded that main cause delays come from inadequacy of sub-contractors, organizations that lack sufficient resources and lengthy approval procedures. Moreover, Al-Kharashi and Skitmore (2008) cited in Kikwasi (2012)

pointed out lack of qualified and experienced personnel to account for the delay. Furthermore, Sambasivan and Soon (2007) cited in Kikwasi (2012) identify contractor's: improper planning, poor site management, inadequate experience, inadequate client's finance and payments for completed work, problems with subcontractors, shortage in labor supply and lack of communication between parties to result in delay.

Chan and Kumaraswamy (1997) and Kaming, Olomolaiye, Holt and Harris (1997) cited in Kikwasi (2012) identified poor supervision, unforeseen site conditions, slow decision-making inadequate planning and resource shortages influences time overrun. Moreover, Haseeb, Xinhai-Lu, Bibi, Maloof-ud-Dyian, and Rabbani, (2011) cited in Kikwasi (2012) point out that natural disaster to account for the delay. The study also acknowledged others which are: financial and payment problems, improper planning, poor site management and insufficient experience.

Abebe (2015) noted that project delay was mainly associated with disagreement with the assumptions and considerations and consultants and client's unlimited demand or request. In addition, lack of commitment from the contractor and consultant to act on time; contractors submit unrealistic project; absence of sufficient and enforceable contractual remedies. According to Endale (2016), the causes of delay in the construction of 40/60 saving houses were financial difficulties faced by the contractor, delayed payments to contractors, ineffective planning and scheduling, late design review and approval and slowness in decision making process.

Some of the project delay factor in the Ethiopia construction sector include: low attention given to schedule preparation and timely submission; lack of commitment to act on time; unrealistic project and absence of sufficient and enforceable contractual remedies, failure to define project deliverables; failure to use realistic work breakdown structures, failure to use realistic project link, financial difficulties faced by the contractor, delayed payments, late design review and approval.

As discussed in the previous paragraphs, many of the scholars attempted to study the cause of project delay factors mainly in the construction sectors and tried to look the causes of delay from contractor, consultant and client perspective. Thus, the conclusion is pertinent to the construction industry as the causes of project delays vary according to and due to the faults and weaknesses of the parties involved in the project management. However, there is scanty of project delay studies in the sanitation and hygiene sector both locally and globally. Moreover, international development projects are frequently grouped together for analysis regardless of the specific sector in which they are implemented. Therefore, water and sanitation projects are evaluated with other projects, resulting in a very broad understanding of project level factors. Hence, the majority of existing research has been dedicated to identifying project delay factors in the construction sector while little has been done to identify project delay perceived reasons in the sanitation and hygiene sector.

Review of the program reports and different communication revealed the presence of delays. However, there is no systematically studied document or report about ESHIP delay. Thus, it was required to investigate and identify ESHIP project delay and then selecting the right actions to counter these delay reasons. Therefore, this study was designed to assess the perceived reason for the sanitation and hygiene project delay and strived to fill this research gap.

### 1.3 Study Questions

The unit of analysis for this research was program executed at the woredas and support given by regions and federal level. The unit of observation was the experience of the program focal persons regarding program performance. In seeking the causes of program delay, questionnaire was developed and circulated to gain the reflection of the focal persons pertinent to the program area and identified the causes of program delay in this context. Accordingly, data was gathered on the performance of the program by disseminating questionnaires among the program focal persons working within the health structures at the woredas, regions and federal level. Thus, the study answered the following questions:

- How was ESHIP previously being practiced?

- What are the main perceived reasons behind the program delay?

## 1.4 Objectives of the Study

### 1.4.1 General Objective

To explore the above questions, this research mainly focused on to investigate the perceived reasons that attributing to the delay of Ethiopia Sanitation and Hygiene Improvement Program.

### 1.4.2 Specific Objectives.

The specific objectives this study include:

- To assess the practice of ESHIP
- To identify the main perceived reasons behind the program delay

## 1.5 Research Hypothesis

A hypothesis may be defined simply as a statement about one or more populations (Wayne W. Daniel, n.d). The purpose of hypothesis testing is to aid the clinician, researcher or administrator in reaching a conclusion concerning a population by examining a sample data not a census from that population (Wayne W. Daniel, n.d; Donald and Pamela, 2014).

The hypothesis is frequently concerned with the parameters of the populations about which the statement is made. A hospital administrator may hypothesize that the average length of stay of patients admitted to the hospital is 5 days; a public health nurse may hypothesize that a particular educational program will result in improved communication between nurse and patient; a physician may hypothesize that a certain drug will be effective in 90 percent of the cases for which it is used (Wayne W. Daniel, n.d).

**Hypothesis1**: Clarity of program target and deliverables has contribution to program delay
**Hypothesis2**: Sufficiency of time spent on annual workplan has contribution to program delay

**Hypothesis3**: Staffs program management knowledge and skill has contribution to program delay

**Hypothesis4**: There was high staff turnover to account for the program delay

**Hypothesis5**: Drought or ADW response affected the program and caused program delay

**Hypothesis6**: There were lack of proper handover activities and accounted for the program

**Hypothesis7**: Civil unrest or political instability affected the program and caused program delay

### 1.6 Significance of the Study

The study will benefit the program executing agency (EA) and Sub-grantees (SGs) by identifying the perceived reasons for program delay and forward feasible solution. In addition, the recommendation will help the leading and implementing organizations including the funding partner to consider the local context. Moreover, the study recommends feasible solution that will help the executing and the funding organization to realize the suggestion to rectify the program delay issues in their upcoming program and ongoing ESHIP2 program. Furthermore, the approach, result, research discussion and recommendations will benefit researchers and project management practitioners involved in the project management to use or imitate the research design for similar studies in the future.

### 1.7 Scope of the Study

The study considered and limited to investigating program delay perceived reasons of the Ethiopia Sanitation and Hygiene Improvement Program which has been working in 12 Amhara, 14 Oromia, 4 Tigray and 10 SNNPR districts of the 4 regional states. The study also confined to the same program for the period of June 2012 to December 2018. In addition, the study mainly used closed-ended questionnaires that was organized in 3 points Likert scale Ramiro et al. (2013) and Fonseco-Pedrero et al. (2013) cited in (James Hartley, 2013).

## 1.8 Limitations of the Study

This study faced lack of relevant literature carried out in the WASH area. Moreover, staff turnover might affect the search for appropriate responses. In addition, the study involved program personnel from the executing agency and program implementors side while did not involve donor. Hence, the investigation might miss the experience of the donor.

Moreover, the study was further limited by assessing only the program focal persons and missing to get the idea of the finance people which might result in omission of important information to identify the perceived reason for program delay from finance perspectives.

Since only ESHIP program was evaluated in this research which limits how the findings can be applied to other types of projects. However, the findings hold true for similar sanitation and hygiene program/project that are implemented in the rural and agrarian context found in Amhara, Tigray, Oromia and SNNP regions managed under the same context.

Some of the findings presented here may be applicable to sanitation and hygiene projects. However, due to the diversity of projects implemented in developing countries, the researcher hesitates in claiming the applicability of this findings to other development projects.

## 1.9 Organization of the Study

This research report presented in five chapters. Accordingly, Chapter One introduces the research subject, presents the objective, scope, significance of the study while Chapter Two presents general project delay information gathered from literature review. Similarly, Chapter Three details the methodology employed in the study, characterizes the population and ethical considerations while Chapter Four presents the result and discussion. Finally, Chapter Five presents the Conclusion and Recommendation pertinent to ESHIP delay.

# CHAPTER II

# REVIEW OF RELATED LITERATURE

## 2.1 Concept of Project and Project Delay

Several authors and books have defined project in various ways. Thus, project is: A temporary endeavor undertaken following specific cycle of Initiation, Definition, Planning, Execution and Close to create a unique product, service, or result through novel organization and coordination of human, material and financial resources PMBOK (2004). A Project is: A group of tasks, performed in a definable time period, in order to meet a specific set of objectives. It is likely to be a one-time program. It has a life cycle, with a specific start and end. It has a work scope that can be categorized into definable tasks. It has a budget. It is likely to require the use of multiple resources. Many of these resources may be scarce and may have to be shared with others. It may require the establishment of a special organization, or the crossing of traditional organizational boundaries Harvey (2002). It is a sequence of unique, complex, and connected activities that have one goal or purpose and that must be completed by a specific time, within budget, and according to specification. In general, a project is a unique, well-defined effort to produce specified results within a set timeframe, at a given cost, in a multifunctional environment and under special management Berry and Duhig (1987). The PMBOK Guide has defined a project as "A temporary endeavor undertaken to create a unique product or service" (PMBOK, 2017).

Likewise, project delay can be defined as execute later than intended, planned, or later than specific time or the prolonging of the implementation period that all the concerned parties agreed for the project. Delay in project is counted as a common problem. The project's success depends on meeting objectives within time and budget limits. The major factor of project problems is project's delay. On time completion of project is an indicator of efficiency. But there are many unpredictable factors and variables resulting from various sources affecting projects. Some of the main sources are the involvement and performance of parties, contractual relations, environmental and site conditions, resources availability etc. It is very rare to see that a project is completed on time (Haseeb et al., 2011).

## 2.2 Theories of Project Delay

There are a number of activities that, when not managed properly, can lead to delays. Hence, Wie (2010) cited in Mulenga (2013) states that the classification of delays is dependent upon the type and magnitude of the effect that an activity will have on the project and who is responsible for the delay among the stakeholders. Whilst, Theodore (2009) cited in Mulenga (2013) categorized delays into four groups as follows; Critical or noncritical, Excusable or non-excusable, Compensable or non-compensable and Concurrent or non-concurrent, which is discussed in the subsequent sections.

A. Critical Versus Non-Critical Delays

Theodore (2009) cited in Mulenga (2013) writes that delays that affect the project completion time or date are considered as critical delays. Delays that do not affect the project completion time or date are noncritical delays. Determining which activities truly control the project completion date depends on the following: the project itself, the contractor's plan and schedule (particularly the critical path), the requirement of the contract for sequence and phasing and the physical constraint of the project, i.e. how to build the job from a practical perspective Theodore (2009) cited in Mulenga (2013).

B. Excusable versus Non-Excusable Delays

Behboudi (2009) cited in Mulenga (2013) states that excusable delays are caused owners actions or responsibilities, hence, the contractor is entitled to extension of time. Whereas, non-excusable delays are caused by the contractors' actions or responsibilities and the client is compensated. However, Theodore (2009) studies that all delays are either excusable or non-excusable. An excusable delay is a delay that is due to an unforeseeable event beyond the contractor's or the subcontractor's control. Delays resulting from the following events would be considered excusable: General labor strikes, Fires, Floods, Acts of God, Owner directed changes, Errors and omissions in the plans and specifications, Differing site conditions or concealed conditions, unusually severe weather, Intervention by outside agencies and Lack of action by government bodies Theodore (2009) cited in (Mulenga, 2013).

Non-excusable delays are events that are within the contractor's control or that are foreseeable. Non-excusable delays include: Late performance of sub-contractors, Untimely performance by suppliers and Faulty workmanship by the contractor or sub-contractors Theodore (2009) cited in (Mulenga, 2013).

C. Compensable Delays versus Non-Compensable Delays

The work of Mohammed and Isah (2012) cited in Mulenga (2013) shows that non-compensable delay is caused by third parties or incidents beyond the control of both the owner and the contractor where the contractor is normally entitled to a time extension but no compensation for delay damages and Compensable delay is caused by the owner or the owner's agents. A compensable delay is a delay where the contractor is entitled to a time extension and to additional compensation such as payment for the delay.

D. Concurrent Delays

Rider and Long (2013) cited in Mulenga (2013) defines concurrent delays as two or more parallel and independent delays to the critical path of a project. Concurrent delays can be on the same critical path or on a parallel critical path.

## 2.3 Empirical Review

This section gives an insight into the literature by other scholars and researchers on the aspect of factors affecting project delays. It also presents summary and gaps to be filled and the conceptual framework.

Frimpong et al. (2003) cited in Ndungu (2014) revealed that project management tools and techniques play an important role in the efficient and effective completion of a project. Activity schedules and monitoring frameworks are typical management tools. While some projects are effectively and efficiently managed others are mismanaged leading to failure to meet their set deadlines for completion Jagboro and Aibinu (2002) cited in (Ndungu, 2014).

Ndungu (2014) after reviewing a number of articles concluded that poor communication, inexperienced project managers, contract variations and inadequate resources as being some of

the major contributors to poor time performance of public sector projects. As a result, many major projects fail to meet scheduled deadlines. Predicting a likelihood of schedule delay thus plays a key role in overall project success Luu et al. (2009) cited in (Ndungu, 2014).

According to WASHplus (2009), the political unrest and violence during the project period has served to slow progress against not only WASHplus but also national development objectives and prevent essential movement in-country to implement, monitor, and follow up on project activities. In fact, these delays were the impetus behind the no-cost extension (NCE) request—to ensure all timely follow up and monitoring was completed as proposed (WASHplus, 2016).

Additionally, natural disasters delayed and impeded progress by damaging and destroying a number of newly constructed latrines in the first two years of the project. This forced households, which had gone through the CLTS process and constructed latrines, to revert to using unimproved sanitation while they remobilized and reconstructed (WASHplus, 2016).

According to the project evaluation report IFRCS (2018), financial procedure caused project delay in Indonesia as each district needed complete financial clearance before new advances were given, resulting in stop-start programming. Moreover, board, management, staff and volunteers cited communication and financial arrangements as a major challenge leading to delays.

Financing provides the monetary resources required to meet the project budget as represented by the project's bill of quantities. Devarpiya & Ganesan (2002) cited in Ndungu (2014) obtains that poor financing arrangements, inadequate construction funding and budgets, bad cash flow that may be occasioned by contractor's and client's financial difficulties, and inaccessibility to formal structured finance have a heavy bearing on the project smooth running leading to delayed completion of a project. Thomas (2002) cited in Ndungu (2014) also identified financing as a major success criterion of construction projects.

Similarly, effective project monitoring helps the project manager ensure that the project is on track to completion by certain deadlines by comparing actual performance with planned performance and taking timely corrective action to yield desired outcomes when significant deviations exist. Making allowances for adequate monitoring and feedback mechanisms therefore gives the project manager the ability to anticipate problems, to oversee corrective measures, and to ensure that no deficiencies are overlooked. Monitoring therefore informs forecasting and planning during the implementation phase of a project. The plans are then communicated to the workers for execution (Navon, 2005).

Furthermore, projects are fulfilled through the efforts and skills of people, with the help of systems. It is noted that employees' capacity for effective construction management is paramount during the construction stage if the project's stipulated targets are to be achieved. Moreover, there should be a capacity to carry out project management functions which typically include: (1) Specifying project objectives and plans including delineation of scope, budgeting, scheduling, setting performance indicators and selecting project participants. (2) Maximizing the resource efficiency through procurement of labor, materials and equipment. (3) Implementing various operations through proper coordination and control of planning, design, material estimation and sub-contracting in the entire construction process. (4) Developing effective communication and mechanism for resolving conflict an aspect of directing and motivating people towards attainment of project objectives Chris Hericksson (2008) cited in Ndungu (2014). Contractor's incompetence/inadequacy attributed to problems such as lack of experience, poor methods of construction and delayed procurement of equipment and materials, cash flow problems, labor shortages or engaging inadequate labor skills and unrealistic budget fronted by the client is a key factor contributing to time overruns in construction projects globally (Chan and Kumaraswamy, 2002).

Noulmanee et al (1999) cited in Kikwasi (2012) investigated main causes of delays in highway construction in Thailand and concluded that delays can be caused by all parties involved in projects; however, main causes come from inadequacy of sub-contractors, organizations that lack sufficient resources and lengthy approval procedures Kikwasi (2012). Al-Kharashi and Skitmore (2008) cited in Kikwasi (2012) also point out that the main cause of delay in Saudi

Arabia construction sector for public projects is the lack of qualified and experienced personnel. Sambasivan and Soon (2007) cited in Kikwasi (2012) identify most important causes of delay in Malaysian construction industry was contractor's improper planning, contractor's poor site management, inadequate contractor experience, inadequate client's finance and payments for completed work, problems with subcontractors, shortage in labor supply and lack of communication between parties.

Other researchers investigated delay factors in construction projects. Chan and Kumaraswamy (1997) cited in Kikwasi (2012) identified principal delay factors as: poor supervision, unforeseen site conditions and slow decision making. The study made by Kaming, Olomolaiye, Holt and Harris (1997) cited in Kikwasi (2012) revealed that the major factors influencing time overrun include inadequate planning and resource shortages. Haseeb, Xinhai-Lu, Bibi, Maloof-ud-Dyian, and Rabbani (2011) cited in Kikwasi (2012) point out that the most common factors of delay are natural disaster in Pakistan like flood and earthquake. The study also acknowledged others which are: financial and payment problems, improper planning, poor site management and insufficient experience.

Abebe (2015) noted that project delay was mainly associated with absence of programming expert with the client and contractor, disagreement with the assumptions and considerations and consultants and client's unlimited demand or request. In addition, the following factors were identified to contribute for the delay recorded in submission and approval: no attention was given to its preparation and timely submission; lack of commitment from the contractor and consultant to act on time; contractors submit unrealistic project; absence of sufficient and enforceable contractual remedies (Ibid).

Moreover, work projects submitted and updated by the contractors were identified to have low contribution to progress monitoring because the submitted projects were not realistic or already delayed. Abebe (2015) further identified factors that contribute to the failure of projects for tracking of deliverables such as: failure to update work projects; failure to define project deliverables; failure of the contract to show defined project deliverables. In addition, Abebe (2015) revealed that work projects submitted by contractors did not assist for review of

remedial rights or delay analysis and evaluation of claims due to: failure to use appropriate method of programming; failure to use realistic work breakdown structures and failure to use realistic project link.

According to Endale (2016), the causes of delay in the construction of 40/60 saving houses project were financial difficulties faced by the contractor, delayed payments to contractors, ineffective planning and scheduling, late design review and approval and slowness in decision making process.

Habtemariam (2016) noted delays were due to the failure that more than half of the schedules prepared by the contractor didn't show the activity relationship which force consultants to evaluate time claim in subjective and personal manner. Furthermore, most of consultants took the contractors request date as a baseline and some approved time claim based on the contractor's requested date.

In general, the project delay can be defined as execute later than planned or the prolonging of the implementation period. Some of the main sources of project delay include: contractual relations, environmental and site conditions, resources availability, bureaucratic approval procedures, the lack of qualified and experienced personnel, contractor's improper planning, contractor's poor site management, inadequate client's finance and payments for completed work, problems with subcontractors, lack of communication between parties and poor supervision.

Some of the project delay factor in the Ethiopia construction sector include: absence of programming expert, low attention given to schedule preparation and timely submission; lack of commitment to act on time; unrealistic project and absence of sufficient and enforceable contractual remedies, failure to define project deliverables; failure to use realistic work breakdown structures, failure to use realistic project link, financial difficulties faced by the contractor, delayed payments, late design review and approval.

The literature review so far mainly focuses on the delay of the project in the construction sector. Hence, it can be summarized that the causes of project delays vary according to and due to the faults and weaknesses of the parties involved in the project management. However, it was evident that there were no studies related to sanitation and hygiene project delay, some of the causes of the construction project delay also applies to the sanitation and hygiene projects. Thus, it was required to investigate and identify ESHIP program delay perceived reasons and then selecting the right actions to counter these delay reasons. Therefore, this study assessed the perceived reasons of the sanitation and hygiene project delay and strived to fill the gap.

## 2.4 Conceptual Framework

A conceptual framework is a representation of the main concepts or variables under study and their presumed relationship with each other. The study assessed the perceived reason for the project delay shown in Figure 2.1 of the conceptual framework. These reasons have been explained in several research studies and also assessed by this study. The perceived reasons are classified into: internal, external and macroenvironment. The project delay is resulted from the influence of perceived reasons. Macroenvironmental reasons i.e. political instability or civil unrest, Acute Watery Diarrhea (AWD) or drought response reasons etc. affected project delay in many ways. They also influenced internal and external perceived reasons. Internal and external perceived reasons as well affected ESHIP program delay.

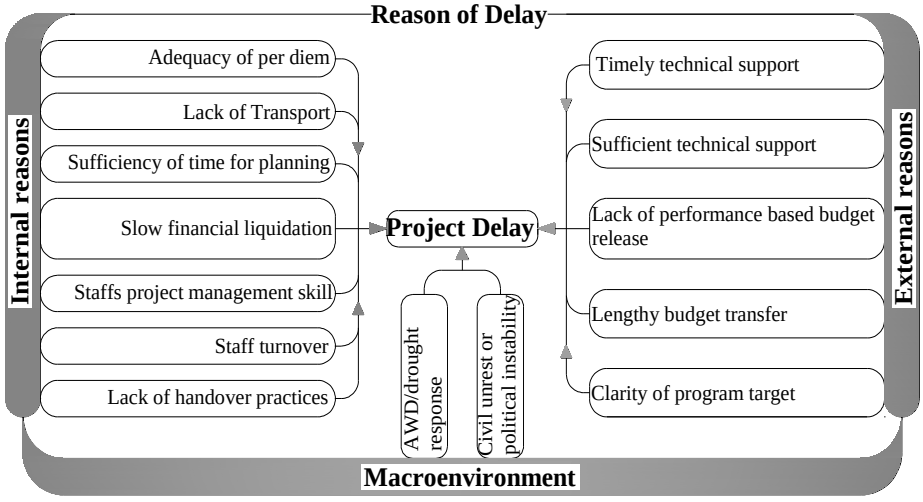


Figure 2.1. Conceptual framework of the study

Hence, the study collected program pertinent data to assess the order of influence the reasons to yield program delay.

# CHAPTER III

# RESEARCH DESIGN AND METHODOLOGY

## 3.1 Research Approach

The study mainly used quantitative method as it helped to measure opinion, knowledge or attitude of respondents related to the perceived reasons for program delay which were organized in 3-point Likert scale and multiple choices with single response. Such methodologies answer questions related to how much, how often, how many, when, and who. It is noted that survey is considered a dominant methodology of the quantitative researcher. Quantitative data often consist of participant responses that are coded, categorized, and reduced to numbers so that these data may be manipulated for statistical analysis.

## 3.2 The Research Design

The study tried to discover answer from the EA and SGs for the research question such as how the program was previously being implemented? What were the main perceived reasons behind the program delay? Moreover, it tried to estimate the proportions of respondents that had these characteristics. Hence, addressing such research issues would classify and mainly attributed the research to the descriptive research type. Thus, the study used descriptive research.

## 3.3 The Research Methods

### 3.3.1 Study Population

The research considered the entire 46 focal persons working at the federal, regional and woreda level mainly as the population is less than 200 and basically small in size Zemenu (2017). Hence, the use of census eliminates sampling error and provides data on all the individuals in the population. Finally, the entire population was studied in order to achieve a desirable level of precision and it offered the opportunity to generalize the findings to the

population of interest. In addition, the method is appropriate for explanatory, descriptive, and causal studies (Donald and Pamela, 2014).

Therefore, the distribution of the 46 focal persons at different level is presented in table 3.1

Table 3.1. Population of the study

| S.n | Name | Number focal persons |
|---|---|---|
| 1 | Amhara | 13 |
| 2 | Tigray | 5 |
| 3 | Oromia | 15 |
| 4 | SNNPR | 11 |
| 5 | FMoH | 2 |
| Total | | 46 |

### 3.3.2 Data Collection Techniques and Procedures

The study used both primary and secondary data sources. The questionnaire helped to generate the primary data for the study while program reports, correspondences, program proposal and literature was used as secondary sources of data.

The researcher collected preliminary list of project delay reasons from literature review and program reports. The reasons of delays were then converted to questions around the research objective and was circulated to program focal persons who have been implementing and supporting the program at the woredas, regions and federal level to examine their applicability through pilot testing. These focal persons verify the causality between identified causes and program delay. Thus, the study included a total of 6 demographic and 16 opinion questions mainly closed ended ones that was organized into 3-point Likert scale and multiple choices with single response.

The federal ministry of health is the program executing agency while Amhara, Tigray, Oromia and SNNPR Regional Health Bureaus and 40 District Health Offices found in these four regions are the implementors of the program. Hence, these government partners have been

involved in the planning, execution, monitoring and reporting of the program. Thus, the program delay at the federal, regional and or district levels contribute to the overall program delay. Therefore, the target population of the study comprised of program technical experts working at the Federal Ministry of Health, 4 Regional Health Bureaus and 40 District Health Offices mainly because these experts contained the desired information and can easily answered to the measurement questions.

The responses were captured by using closed-ended questionnaires organized in Likert scale as it helped to generate responses that can be compared among respondents. In addition, the answers were much easier to code, analyze and easier for a respondent to answer as they required to merely choose of a category.

The questionnaire survey was done on behalf of the delay reasons. The questionnaire measured respondent's attitude as to agree or disagree with the issues at stake. The questionnaire consisted of two parts whereby part I dealt with respondent's demographic data such as residential address (region, name of district), age, duration with the program, educational status and occupation while part II enquired the opinion of the respondents related to the practice of the program and the reasons behind the program delay. A survey was conducted with experts at the federal level while emailing the 44 questionnaires to 4 and 40 technical people working with the program at regional and district levels government health structures. It was hoped that all respondents filled and returned the questionnaires via email from the regional and district level while personal collection at the federal level. The data from the secondary source was used throughout this study.

Pre-testing of the questionnaire was made at federal and regional which helped to ensure validity, review the questionnaire and reduce ambiguity. Hence, the revised questionnaire was then disseminated at all level to get the appropriate response.

The reliability and validity of the questionnaire were measured using Cronbach alpha coefficient. The reliability statistics were as indicated in Table 3.2. The reliability coefficients were above 0.7 (Table 3.2). The questionnaire was, therefore, accepted and used for the study.

Table 3.2: Reliability statistics

| Region | Cronbach's Alpha | N of Items |
|---|---|---|
| Amhara | 0.86 | 14 |
| Tigray | 0.85 | |
| Oromia | 0.81 | |
| SNNPR | 0.85 | |
| Overall | 0.83 | |

### 3.3.3 Method of Data Presentation and Analysis

Categorical scale is pervasive in the social sciences for measuring attitudes and opinions Alan (2007). Similarly, this study assessed opinion of respondents mainly in ordered scale. Accordingly, the study designed to capture qualitative responses which were organised in 3-point Likert order scale and multiple choices with single response which were appropriate for the study.

The study tried to generalize the finding that was obtained from the program/population of interest in the entire 40 districts. The study employed AutoCad 2007 to prepare the conceptual framework and Microsoft Excel 2016 version to count frequencies and calculate the percentages of responses. Accordingly, the perceived reasons for program delay information presented in tables, bar charts and pie charts.

## 3.4 Ethical Considerations

The program manager circulated email as it was sufficient to inform and got the consent of the regions and districts in order to proceed with the survey of the questionnaire. In addition, a verbal consent was administered to each study respondent to secure for the freewill of the respondents to participate in the study (Annex 1). The right of respondent to withdraw partially or completely respected without any persuasion.

The privacy of respondent maintained throughout the study. Anonymity was the standard procedure during data collection, data entry and analysis. Study subjects had unique IDs to present them in a questionnaire, data management and analysis. The findings, however, was relevant in terms of benefiting the program management at all level.

Questionnaires kept in private that can only be accessed to investigators. They will be destroyed after getting the data in a year time.

# CHAPTER IV

# RESULTS AND DISCUSSION

This chapter presents the main findings attributed to the practice of Ethiopia Sanitation and Hygiene Improvement Program and the main perceived reasons for the program delay and the order of importance of the reasons specific to the program delay.

## 4.1 Response Rate

The research questionnaire was distributed among 46 people working with the program at the Federal, Regional and Woreda level. Thus, all 46 respondents filled and returned the questionnaires to the researcher via email and on person. Accordingly, the researcher relied on the 46 (100%) returned questionnaires. However, there were some demographic questions where the respondents did not reply.

## 4.2 Demographic characteristics of the study population

The survey analysis (table 4.1) presents the demographic characteristics of respondents involved in the planning, implementation and monitoring of the Ethiopian Sanitation and Hygiene Improvement Program. Accordingly, the study revealed that 83% of the respondents aged below 40 years. Similarly, 90% of respondents served more than one year in the program and at least hold first degree in health-related discipline. Hence, it is believed that the respondents knew the program and can provide appropriate responses to the questions.

Table 4.1. Demographic characteristics of the respondents

| Variable | Frequency | Percentage |
|---|---|---|
| Age of respondents | | |
| <31 year | 17 | 40% |
| 31-40 year | 18 | 43% |
| >40 year | 7 | 17% |
| Total | 42 | 100% |

| Variable | Frequency | Percentage |
|---|---|---|
| Duration with the program | | |
| <1 year | 4 | 10% |
| 1 - 3 year | 14 | 34% |
| >3 year | 23 | 56% |
| Total | 41 | 100% |
| Educational Status | | |
| Diploma | 5 | 12% |
| Degree | 25 | 60% |
| Master | 12 | 29% |
| PhD | 0 | 0% |
| Total | 42 | 100% |
| Occupation | | |
| Officer | 27 | 64% |
| Case team leader | 5 | 12% |
| Process owner | 4 | 10% |
| TA | 6 | 14% |
| Director | | 0% |
| Total | 42 | 100% |

### 4.3 Results and Discussion

A total of 16 closed ended questionnaires were developed to get appropriate responses for the three research questions. Hence, the frequencies and percentages of responses were counted and calculated so that it is presented in tables and pie chart graphs. Thus, the subsequent sections and paragraph discusses the finding associated with each problem questions or specific objectives.

### 4.3.1 Context of ESHIP Implementation

#### 4.3.1.1 Timeliness of Technical Support

The survey analysis shows that 63% (figure 4.1) of respondents' agreement that Region or Zone delivered the required timely technical support to the woredas implementing the program while 22% and 15% of respondents disagreed and held neutral position to receiving timely technical support either from Region or Zone respectively. Hence, it is evident from the analysis that the majority of the woredas received on-time technical support from the respective Region or Zones under which the program was implemented while about 1 every 5 woredas disagreed the region or zone provided the timely support. Similarly, 15% of the respondents took undecided position whether the woredas received timely technical support from the region or zones. Thus, it signifies the need to provide balanced timely technical support as the absence of timely technical support largely forces unresolved technical problem to continue with possibility impacting the project success. The absence of timely technical support might be associated with remoteness and accessibility of the woredas, inadequate provision of transport or differences in the level program performances or inadequate monitoring duration to cover all intervention woredas or lack of systematic monitoring. Therefore, Region or Zone are advised to explore the reason and address the gap by providing balanced support to the woredas who are mainly implementing the program as this irregularity affected the timely completion of the program and contributed to program delay and time extension.

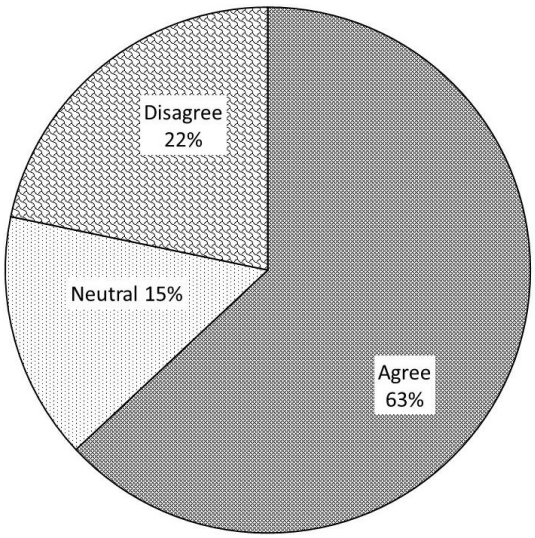


Figure 4.1. Responses to timely technical support

#### 4.3.1.2 Sufficiency of Technical Support

The survey found out 52% (figure 4.2) of respondents' agreement that the support of Region or Zone was sufficient and did not account for the program delay while 28% of respondents disagreed that the regional or zonal technical support was sufficient. Thus, Region and Zone need to provide adequate technical support to the respective woredas implementing the program as the existing inadequate technical support practice adversely impacted the timely completion of the program. If Region or Zone was delivered adequate technical support to the woredas based on need, it would have been much contributed to the timely completion of the program as their delivery of technical support might have solved problem that hinder the program execution.

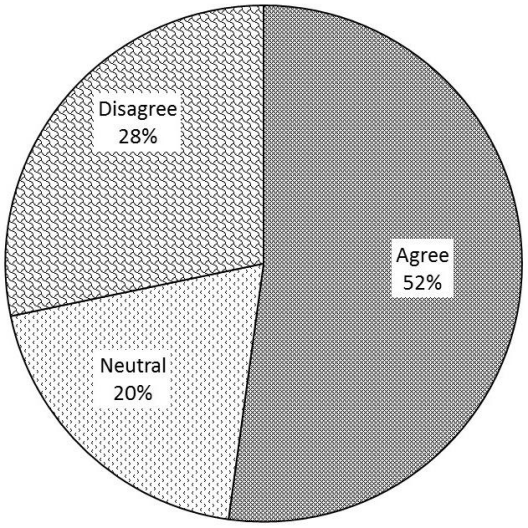


Figure 4.2. Delivery of adequate technical support

#### 4.3.1.3 Adequacy of Per diem in woredas

The survey analysis shown in the pie chart confirms that 80% (figure 4.3) of respondents' agreed the existing woreda level per diem rate is inadequate while 11% disagreed that the per diem rate is insufficient and believed that it did not disturb the smooth execution of the program. Hence, low per diem which did not consider the local living standard discourage expert to timely and adequately provide regular monitoring visit and support the program activities implemented at the kebeles and villages. Similarly, experts shorten their field visit duration in order to reduce unnecessary expenses originated from official business that obliged financing of fieldwork from own pocket as the current per diem rate is too low to cover daily expenses. Thus, the regions in collaboration with the woredas required to review the current per diem rate effected for the expert travelling to visit the kebeles and villages. Otherwise, it will continue to negatively affect the program visit, induce slow implementation pace, bring slow utilization of budget, thereby compromise the quality and sustainability of the program. Thus, in sum it will contribute to the overall program delay and might also discourage donor partner due to poor quality output and weakly sustainable or unsustainable program.

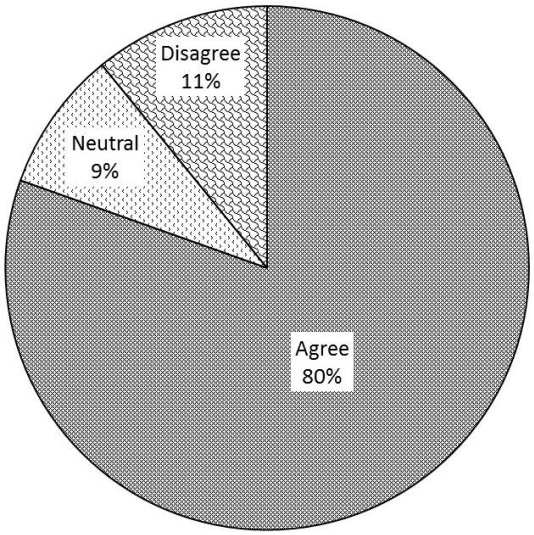


Figure 4.3. Inadequacy of per diem rate

#### 4.3.1.4 The Role of Transport in Program Execution

The presence, adequacy and on-time provision of transport is vital to the right time and within budget completion of the program mainly the provision and management of transport helps to mobilize input material and equipment which are used during program implementation. Hence, it supports the delivery of material at the time, place, right cost and right quantity when and where it is needed. In addition, it helps to avail transport facilities to the people involved in the planning, implementation and monitoring of the program. On top of this, transport eases the movement of people involved in the experience sharing to and from the program location.

Keeping the contribution of transport in mind, the survey included question to get the view of program people at various level. Hence, the analysis of the survey questions indicated that 69% of respondents' agreement that there was lack of transport provision while 22% rejected the presence of transport problem might be due to some are small in size and has additional transport facilities which supported the program implementation. Hence, the absence of transport in the majority of the sub-grantee woredas in general brought overall low implementation pace, slow budget utilization and infrequent monitoring which impacted the quality of the output. Thus, the program was then necessitated to demand additional time in

order to continue the implementation of the program activities, reaching additional beneficiaries and bring increased budget utilization. Hence, it was contributed for the overall program delay which was reflected over a series of no cost extension agreement signing.

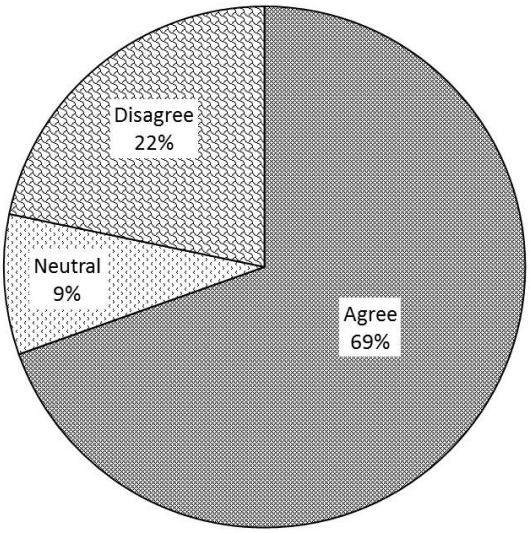


Figure 4.4. Effect of logistic on program delay

#### 4.3.1.5 Presence of lengthy budget transfer

The pie chart presented below clearly indicated 78% (figure 4.5) of the survey participants agreed in the presence of lengthy budget transfer and approval process compared to 15% disagreement. Hence, there was unnecessary time spent on budget transfer and request approval process thus led to the suspension and ceasing of program activities implementation with consequence of overall program delay and time extension. It is evident that swift budget transfer and efficient budget request approval is central to the on-time achievement of the program target and completion of the entire program though the program faced lengthy budget transfer process at the cost of program delay and time extension.

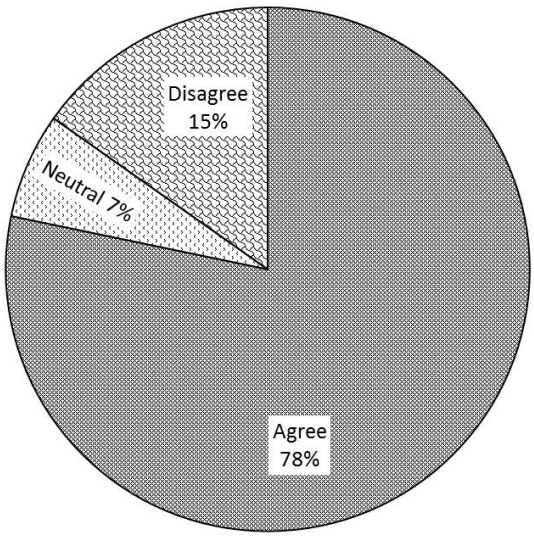


Figure 4.5. Responses of lengthy budget transfer

#### 4.3.1.6 Slow financial liquidation

The survey analysis showed that 80% (figure 4.6) of program personnel believed and experienced slow financial expense settlement and liquidation process compared 13% disagreement on the presence of slow financial liquidation. Thus, this slow liquidation process adversely affected the timely settlement of program expenditure with consequence of delaying follow on budget request and transfer because of the government finance rule and regulation discourage payment of advance on advance. Hence, this resulted in frequent short-term ceasing of the implementation. Therefore, it further brought in program off schedule with consequent prolonging of the program period. Accordingly, it was played and contributed to the overall program delay that was manifested in a series of no cost extension request and agreement conclusion.

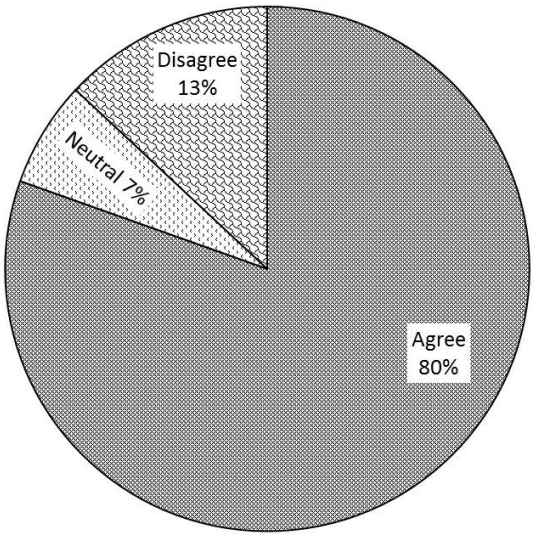


Figure 4.6. Presence of slow financial liquidation

#### 4.3.1.7 Absence of performance-based budget transfer

The study finding indicated here that 83% (figure 4.7) of respondents agreed on the absence of performance-based budget transfer compared to 11% disagreement and 6% undecided position. It was common that the program used to wait all sub-grantee regions and woredas to 100% utilize the program budget advances granted to them in order to transfer the next budget. Hence, it is obvious that the SG regions and woredas have different technical capacities and competencies in planning, implementing and monitoring of the program. Thus, these inherent disparities were also reflected by 67% agreement that staffs have knowledge and skill to manage the program. Moreover, program report (FMoH-ESHIP, 2015) also indicated that the variations in financial utilizations of the program across regions which was also a reflection of the financial utilization at the woredas. However, the program did not consider this variation and made adjustment on its budget transfer system. Therefore, absence of performance-based budget which should have been a solution to respond to the prevailing implementation capacity differences were not implemented in the program. Thus, this issue resulted in and contributed to the program delay. Hence, the program needs to reconsider to apply performance-based budget transfer to tackle the program delays and time extensions.

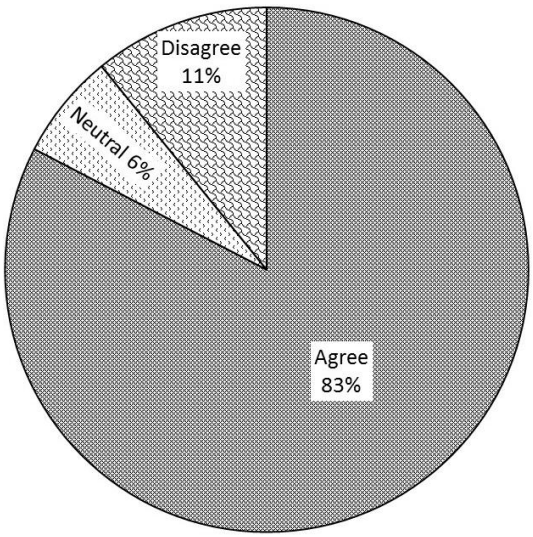


Figure 4.7. Absence of performance-based transfer

### 4.3.2 Perceived reasons for ESHIP program delay

The section discusses program pertinent perceived reasons that contributed for the overall program delay. Hence, the subsequent paragraph discloses the findings of the survey conducted among the 46 program personnel involved in the program management at different level and capacities.

#### 4.3.2.1 Clarity of Program target and deliverables

**Hypothesis$_1$:** Clarity of program target and deliverables has contribution to program delay.
The analysis indicated that 81% (figure 4.8) of respondents' agreement on the clarity of the program target and deliverables against 15% disagreement and 4% unsure position. Hence, the significant proportion of the respondents as indicated above witnessed that there was no confusion that constrained the program people involved in the planning, implementation and monitoring of the program to understand the target and expected deliverables. Therefore, issue of program target and deliverables clarity was not a problem and had a very minimal contribution to the program delay or time extension. However, the program still expected to

address the 15% respondents disagreement through creating forum that clarify the program target and deliverables.

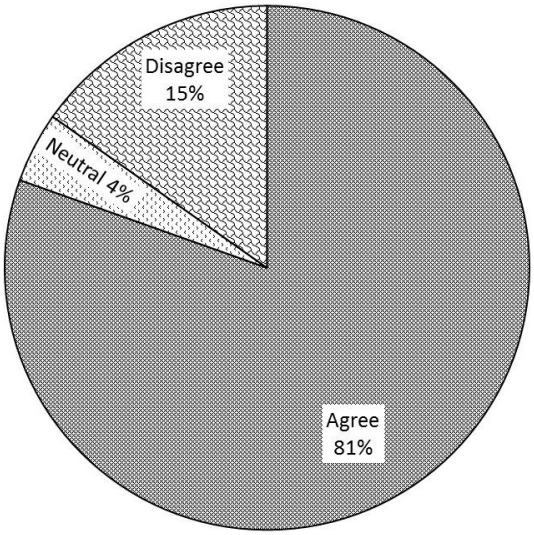


Figure 4.8. Clarity of program target and deliverables

#### 4.3.2.2 Sufficiency of time for annual planning

**Hypothesis$_2$:** Sufficiency of time spent on annual workplan has contribution to program delay. It is evident from the pie chart below obtained from the survey analysis that 63% (figure 4.9) of respondents involved in the planning, implementation, monitoring and reporting agreed that there was sufficient time allotted during the preparation of the annual workplan and budget. Hence, the program personnel in the respective regions and woredas did not encounter time shortage to prepare the annual workplan and budget thereby supported the sub-grantees to realistically plan the volume of work needed for the year and did not associate this reasons to account for the program delay. However, nearly one in every four people faced time shortage to craft the annual workplan and budget. Thus, these program people associate time shortage as reasons for the program delay. In summary, the variation is attributed to the prevailing capacity differences which is reflected in execution of the program.

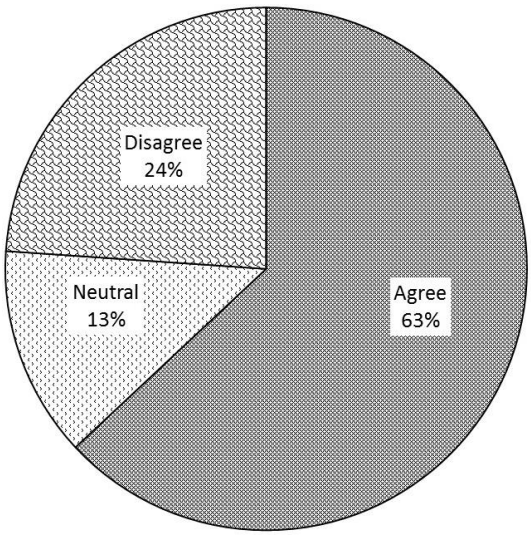


Figure 4.9. Adequacy time for annual planning

#### 4.3.2.3 Staff knowledge and skill for the program management

**Hypothesis$_3$:** Staffs program management knowledge and skill has contribution to program delay.

The use of skilled personnel minimizes mistakes and error thus lead to on time completion of the project activities. Accordingly, the pie chart shows that 67% (figure 4.10) of people working in the program believed that they have the required knowledge and skill to manage the program compared to 20% and 13% disagreement and neutral status. Hence, the majority of the respondents did not attach program knowledge and skill gap as reasons for the program time extension beyond the designed and agreed 3 years' time. However, still one in five people disagreed that the staff had knowledge and skill to manage the program and associated it for the program delay. Thus, the program is required to tackle this gap to enhance the overall performance.

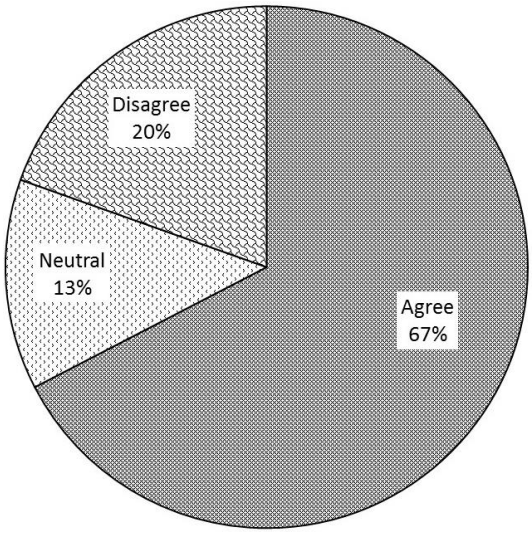


Figure 4.10. Responses of presence of required knowledge and skill

#### 4.3.2.4 Staff turnover

**Hypothesis$_4$:** There was high staff turnover to account for the program delay.

The analysis showed 74% (figure 4.11) of respondents' agreement that there was high staff turnover compared to 15% and 11% disagreement and unsure status respectively. It is evident that staff turnover negatively impacts the program management due to the new staff needs sometime to familiarize with the environment and overall program. Hence, the existing high staff turnover affected in many ways. Thus, it has direct relationship to the on-time completion of the program mainly because it took some time for the new entrant to acquaint and begin to contribute to the overall program management. Hence, woredas need to involve at least two people in program management or bridge the gap through facilitation of adequate handover process, retain the leaving staff for one month before the deadline of the resignation warning period. Furthermore, the woreda should facilitate and secure technical support from Region, Zone, other woredas or partners.

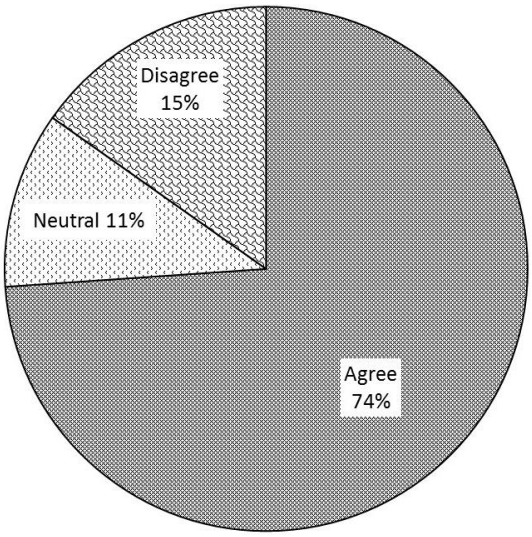


Figure 4.11. Responses of staff turnover

#### 4.3.2.5 Influence of drought or ADW response on the program

**Hypothesis$_5$:** Drought or ADW response affected the program and caused program delay.

The survey analysis indicated 67% (figure 4.12) of respondents' agreement that the response efforts to controlling drought or Acute Watery Diarrhea (AWD) emergencies affected the implementation because people and other resources were diverted to tackle these emergencies that costed human life and property. It is obvious and mandatory that saving human life should get top priority which at times require to divert resources and efforts to contain the problem before escalated and compromised the life of people. Thus, the program implementation temporary ceased during these emergencies. Hence, it led the program to demand additional time in order to continue the implementation of the activities across the program sub-grantee woredas and regions. Therefore, the consequence of such emergencies was clearly seen and reflected in the program by prolonging the implementation period. In addition, the same reason was mentioned as justification for the time extension of the program beside to program personnel agreement on the same. However, the problem of emergency drought or AWD response was not the same throughout the program intervention woredas. Hence, this was reflected by 20% respondents disagreement that drought or AWD was an issue either there

were no such occurrences or they had built strong resilience capacity or proactively tackled the problem.

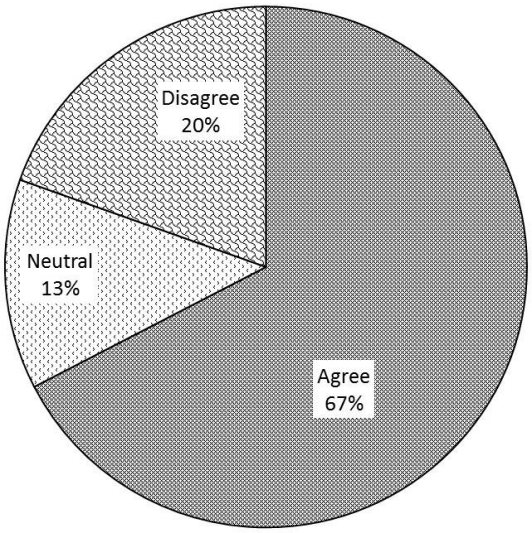


Figure 4.12. Influence of drought or AWD emergencies

#### 4.3.2.6 Lack of proper handover note and activities

**Hypothesis$_6$:** There were lack of proper handover activities and accounted for the program.

The survey found out that 70% (figure 4.13) of respondents' agreement that absence of proper handover note and activities contributed for the program delay. However, 26% and 4% respondents disagreed and neutral as to whether lack of handover has counterproductive effect. Hence, this created a problem specially on the new entrant who the join and takeover the planning and execution of the program activities. The presence of handover note and activities reduces the time needed for the new staff to familiarize with the work environment and the program tasks. Moreover, in the absence of properly documented handover note that show the plan, achievement, issues and other programmatic aspect, the task of socialization with the program activities, environment and expectation become a challenging assignment and demand more time for the new entrant to productively start the assignment compared to properly documented and exchanged handover note and activities. Hence, lack of handover notes and activities clearly contributed for the program delay.

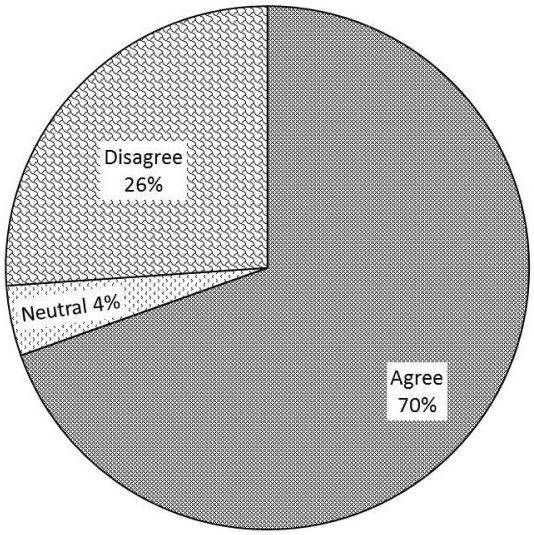


Figure 4.13. Responses to absence of handover practice

#### 4.3.2.7 Civil unrest or political instability

**Hypothesis7**: Civil unrest or political instability affected the program and caused program delay

The survey found out 63% of respondents agreed that civil unrest or political instability negatively affected the program and believed its contribution for the program delay. However, 26% and 11% people disagreed and undecided whether civil unrest or political instability affected the program respectively. It is noted that not all program areas equally affected by civil unrest and political instability and there were disparities even in the same region. For instance, the program was more stable in Tigray, some parts of Amhara and SNNPR than in Oromia. Thus, the finding reflects the situation in the ground.

Moreover, political instability or civil unrest is critical for the success of the program because the program cannot be thought under unstable political environment or civil unrest. Furthermore, political instability or civil unrest itself influence internal and external perceived reasons for program delay. Hence, there is multitude of adverse effect on the safe execution of

the program. Hence of absence of political stability or civil rest results in freezing of the program thereby program delay.

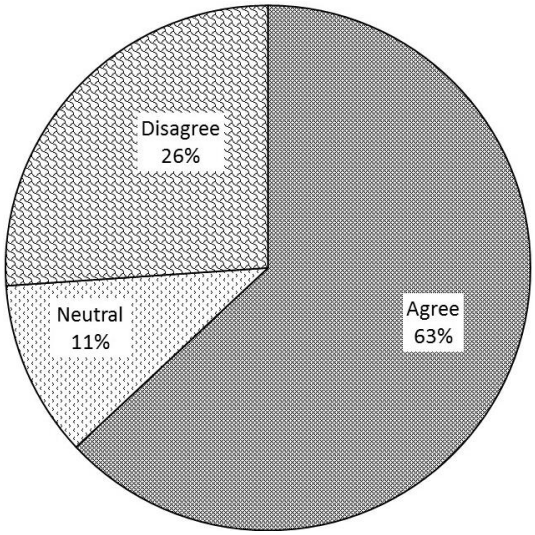


Figure 4.14. Responses to Civil unrest/political instability

Table 4.2. Regional differences of civil unrest/political instability

| Response variable | Number of responses | | | |
|---|---|---|---|---|
| | Amhara | Tigray | Oromia | SNNPR |
| Agree | 12 | 0 | 13 | 4 |
| Neutral | 0 | 1 | 2 | 2 |
| Disagree | 3 | 4 | 0 | 5 |

#### 4.3.2.8 Internal and external ranking of the program delay

The relative importance index method (RII) was used herein to determine respondents perception of the relative importance of the identified delay reasons. The RII was computed Cheung et al. (2004); Iyer and Jha (2005); Ugwu and Haupt 2007 cited in (Nipin Joseph Babu, 2015):

$$\mathrm{RII} = \frac{\sum W}{\mathrm{A}*\mathrm{N}}$$

Where

W – is the weight given to each factor by the respondents and range from 1 to 4;

A – the highest weight = 4;

N – the total number of respondents.

Accordingly, the summary of top four internal and external perceived reasons that account for the program delay is presented in the following subheading. Hence, the respondents were asked to rank the top four internal and external reasons that contributed for the program delay from the list of seven reasons included in the questionnaire. Thus, the raw data is presented in table 4.3 and table 4.5 with the need to calculate the relative importance index and rank. Since 1st rank is highest priority, it should get the highest mark. Accordingly, 4 is given to 1st rank, 3 to 2nd rank, 2 to 3rd rank and 1 for the 4th rank. Therefore, the relative importance index and rank is presented in table 4.4 and table 4.6.

**A) Top four internal perceived reasons for the program delay**

The survey analysis found out the following internal perceived reasons arranged in their order of significance to affecting the overall management of the program and their contribution to the program delay and time extension. Thus, the summarized table 4.4 shows that low per diem rate payment at the woredas and lack of transport ranked 1st and 2nd internal reasons to contribute for the program delay followed by high staff turnover and slow financial liquidation ranked at 3rd and 4th level. Hence, the program executing agency and the sub-grantees should address these issues in their order significant so that their contribution for the program delay will be largely reduced.

Table 4.3. Rank of respondents for internal reasons

| Rank | Number of responses per variables | | | | | | |
|---|---|---|---|---|---|---|---|
| | 2.8.1.1 | 2.8.1.2 | 2.8.1.3 | 2.8.1.4 | 2.8.1.5 | 2.8.1.6 | 2.8.1.7 |
| 1 | 19 | 15 | 2 | 12 | 6 | 12 | 5 |
| 2 | 5 | 10 | 3 | 4 | 4 | 4 | 4 |
| 3 | 6 | 2 | 1 | 8 | 3 | 5 | 8 |
| 4 | 0 | 3 | 6 | 2 | 3 | 1 | 3 |

NB: 2.8.1.1, 2.8.1.2… refers to the questions number in the questionnaire

Table 4.4. Relative importance index and rank for internal reasons

| Reason of delay | RII | rank |
|---|---|---|
| 2.8.1.1 Inadequate per diem payment at district | 0.858 | 1 |
| 2.8.1.2 Lack of transport for implementation and monitoring | 0.808 | 2 |
| 2.8.1.3 Adequacy of time for annual planning | 0.521 | 7 |
| 2.8.1.4 Slow financial liquidation | 0.750 | 4 |
| 2.8.1.5 Staffs knowledge and skill to manage the program | 0.703 | 5 |
| 2.8.1.6 High staff turnover | 0.807 | 3 |
| 2.8.1.7 Lack of proper handover note and activities | 0.638 | 6 |

**B) Top four external perceived reasons for the program delay**

Similarly, the external reasons that accounted for the program delay and time extension were grouped based on their order of influence to the on-time completion of the program. Hence, these perceived reasons were ranked and tabulated in table 4.5 and table 4.6 based on their frequency of occurrence and influence to affect the execution of the program in the SG woredas. Accordingly, AWD/drought response and civil unrest/political instability are 1$^{st}$ and 2$^{nd}$ ranked external reason of the program delay while lengthy budget transfer and timely technical support stood at 3$^{rd}$ and 4$^{th}$ level of external reason of program delay.

Table 4.5. Ranking of respondents for external reasons

| Rank | Number of responses per variables | | | | | | |
|---|---|---|---|---|---|---|---|
| | 2.8.2.1 | 2.8.2.2 | 2.8.2.3 | 2.8.2.4 | 2.8.2.5 | 2.8.2.6 | 2.8.2.7 |
| 1 | 11 | 5 | 14 | 2 | 8 | 11 | 8 |
| 2 | 5 | 8 | 6 | 2 | 4 | 5 | 9 |
| 3 | 6 | 5 | 12 | 0 | 8 | 4 | 4 |
| 4 | 5 | 2 | 2 | 3 | 5 | 1 | 1 |

NB: 2.8.2.1, 2.8.2.2… refers to the questions number in the questionnaire

Table 4.6. Relative importance index and rank for external reasons

| Reason of delay | RII | rank |
|---|---|---|
| 2.8.2.1 Timely technical support obtained from regions/zones or federal | 0.704 | 4 |
| 2.8.2.2 Adequate technical support obtained from regions/zones/federal | 0.700 | 5 |
| 2.8.2.3 Lengthy budget transfer | 0.735 | 3 |
| 2.8.2.4 Unclear program targets and deliverables | 0.607 | 7 |
| 2.8.2.5 Absence of performance-based budget release | 0.650 | 6 |
| 2.8.2.6 Drought or ADW response | 0.810 | 1 |
| 2.8.2.7 Civil unrest or political instability | 0.773 | 2 |

**C) Correlation of woredas and regions ranking**

The **Spearman's rho (**r**)** correlation is another ordinal measure used frequently with ordinal data. Rho correlates ranks between two ordered variables. Accordingly, the correlation of rank aggregated for the woreda and regions are calculated by using the formula given below and the results are presented in table 4.7 and 4.8.

$$r_s = 1 - \frac{6\sum d^2}{n^3 - n}$$

Where n – is the number of subjects being ranked

d – is the difference between consecutive rank for the subject being studied

Hence, to illustrate the use of rho, the study has used 7 questions for the internal and external perceived reason and a correlation of rank was made between region-federal on one side compared with the rank given by the woredas on the other side. Thus, the results of Spearman correlation is presented in table 4.7 and table 4.8.

The finding of table 4.7 indicate that the relationship ($r_s$=0.68) between the woredas' and the regions-federal's internal reasons rankings is moderately high, suggesting agreement between the two measures. Moreover, the findings the of table 4.8 indicated that the correlation ($r_s$=0.43) between the woredas' and regions-federal's external reasons ranking is closer to moderate likewise suggesting agreement between the two measures.

Table 4.7. Spearman correlation of internal reasons

| Response variable | Rank by | | d | $d^2$ |
|---|---|---|---|---|
| | Woreda | Region | | |
| 2.8.1.1 Inadequate per diem payment at district | 1 | 3 | -2 | 4 |
| 2.8.1.2 Lack of transport for implementation and monitoring | 3 | 1 | 2 | 4 |
| 2.8.1.3 Adequacy of time for annual planning | 7 | 7 | 0 | 0 |
| 2.8.1.4 Slow financial liquidation | 4 | 2 | 2 | 4 |
| 2.8.1.5 Staffs knowledge and skill to manage the program | 5 | 6 | -1 | 1 |
| 2.8.1.6 High staff turnover | 2 | 4 | -2 | 4 |
| 2.8.1.7 Lack of proper handover note and activities | 6 | 5 | 1 | 1 |
| | | | Total | 18 |
| | | | $r_s$ | 0.68 |

$$r_2 = 1 - \frac{6\sum d^2}{n^3 - n} = 1 - \frac{6 * 18}{7^3 - 7} = 0.68$$

Table 4.8. Spearman correlation of external reasons

| Response variable | Rank by | | d | $d^2$ |
|---|---|---|---|---|
| | Woreda | Region | | |
| 2.8.2.1 Timely technical support obtained from regions/ zones or federal | 5 | 5 | 0 | 0 |
| 2.8.2.2 Adequate technical support obtained from regions/ zones or federal | 3 | 6 | -3 | 9 |
| 2.8.2.3 Lengthy budget transfer | 2 | 4 | -2 | 4 |
| 2.8.2.4 Unclear program targets and deliverables | 7 | 7 | 0 | 0 |
| 2.8.2.5 Absence of performance-based budget release | 6 | 3 | 3 | 9 |
| 2.8.2.6 Drought or ADW response | 1 | 2 | -1 | 1 |
| 2.8.2.7 Civil unrest or political instability | 4 | 1 | 3 | 9 |
| | | | Total | 32 |
| | | | $r_s$ | 0.43 |

$$r_2 = 1 - \frac{6\sum d^2}{n^3 - n} = 1 - \frac{6 * 32}{7^3 - 7} = 0.43$$

# CHAPTER V

# CONCLUSION AND RECOMMENDATIONS

This chapter tries to generalize the findings in few in paragraph in a way that substantiate the research objective and also forward feasible recommendation as takeaway for the concerned organization and scholar who need to conduct a similar research. Accordingly, the conclusion and recommendations are presented in the subsequent paragraph under separate section.

## 5.1 Conclusion

It is evident from the results that the program had been implemented under the context of low per diem rate, lack of transport facilities, lengthy budget transfer and slow financial settlement environment. While the sub-grantees averagely got timely and adequate technical supports.

Further respondents perceived that program target clarity and time for annual workplan had marginal contribution to the program delay. Finally, the study concludes that low per diem rate and AWD or drought response were the leading internal and external perceived reasons to account for the program delay.

Likewise, the studies done by Kikwasi (2012), WASHPlus (2016), IFRCS (2018) and Ndungu (2014) identified reasons of project delay as lack sufficient resources and bureaucratic approval procedures in administrative government departments, lack of qualified and experienced personnel, inadequate experience, environmental conditions, political unrest and violence during the project period has served to slow progress and prevent essential movement in-country to implement, monitor, and follow up on project activities.

## 5.3 Recommendations

The study forwards the following recommendation for further consideration at various level of the program management. The suggestions include:

- The program management at the woreda level need to improve the low per diem that consider the local living condition
- The different level program management should work to tackle the transport problem through sharing the available resource in sector organization and partners working in the area. Moreover, the program should make effort to provide remote technical support by using telephone, email and skype in between the time interval of the actual field visit
- The woreda should avail and implement a variety of motivational instrument to reduce the high staff turnover
- The regional health bureau in collaboration with the woreda health office should prepare contingency plan to switch easily in case unforeseen civil unrest and occurrence of AWD or drought emergencies.
- The program should deploy roving finance experts who verify financial settlement at the districts.

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## Appendices

Annex 1. Participant's consent form and program delay questionnaire

### Structured Questionnaire

The program delay reasons were collected from literature reviews, from the program document and various semester reports. The structured questionnaire contains 16 program delay questions. The questionnaire is prepared with each and every questions having a scale of 1 to 3 (1= agreed, 2= neutral & 3=disagree). The purpose of scaling the questions is to understand the reasons that the issue linked to the delay of the program according to the decision of the person. Below is the prepared structured questionnaire.

**Questionnaire Survey**

**Name of University:** St. Mary University, School of Graduate Studies

**Purpose of the study:** To investigate the perceived reason for ESHIP program delay.

**Introduction**: Good day. My name is Mesfin Sahele and I am here to collect information to investigate the causes of program delay in your respective region or districts. I will give you some information on how to participate on the basis of which you will decide to participate or decline in the study.

**Instruction:** Thank you for agreeing today to participate in this study. This questionnaire has two sections and it will take 15 to 20 minutes to complete the responses. The first section seeks some demographic information about you. The second part is about your opinion of the practice of ESHIP program and main perceived reason behind the program delay. The aim of this study to generate evidence on the cause of the program delay and provide recommendations to improve the performance of upcoming programs in the sanitation and hygiene sector in Ethiopia. The ideas and information you will provide are very important to the study and will help improve the program performance in the sanitation and hygiene area. However, if there are any questions that make you uncomfortable and you would prefer not to answer, please let me know at 0913676869.

**Title of the study**: "Investigating the perceived reason for Program Delay: The Case of Ethiopia Sanitation and Hygiene Improvement Program''

**Benefits**: - The information which will be gained from the participants will help the Federal Ministry of Health and your respective regions and districts to design an appropriate intervention and resolve the issues pertinent to your specific situations.

**Risks**: The study will not impose any risks on the participants, except spending few minutes for responding the questionnaire.

**Right of the respondents**: You will be invited to participate on this study voluntarily. At any time, you can refrain from giving answer to the questionnaire if you are not willing to answer or even can withdraw any time you want without being affected.

**Confidentiality**: Filled questionnaires will not be accessible to anybody other than the investigator and any information that you will give will not be linked to personal identification. I will keep confidential.

**Consent Form**

I, hereby give my consent to participate in this survey. I have been given the necessary information about the study in a language I understand. I have also understood that I can withdraw my consent any time without penalty or loss of benefits.

**Part I. Demographic related questions.** *Circle your choice and fill in the blank spaces*

1. Date (dd/mm/yyyy) /_____/_____/_____/ Code: /_____/_____/
2. Region:_____District:_____
3. Age

   A) Below 31 B) 31 – 40 C) above 40
4. Duration with the program

   A) Less than 1-year B) 1 to 3 year C) More than 3 year
5. Educational status

A) Certificate B) Diploma C) BA/BSc D) MA/MBA/MPH/MSc E) PhD

6. Occupation

A) Officer B) Case team leader C) Process owner D) Technical assistant E) Director

Other, specify, _____

**Part II. General opinion of the respondent.** *Put a tick mark based on your knowledge of the program (1=agree, 2=neutral and 3=disagree)*

**1.0 How was ESHIP previously being practiced?**

| | 1 | 2 | 3 |
|---|---|---|---|
| 1.1 Regions, zone or federal gave timely technical support | ☐ | ☐ | ☐ |
| 1.2 Regions, zone or federal gave sufficient technical support | ☐ | ☐ | ☐ |
| 1.3 Inadequate per diem payment at district affected monitoring | ☐ | ☐ | ☐ |
| 1.4 Lack of transport affected to smoothly run the program | ☐ | ☐ | ☐ |
| 1.5 Presence of lengthy budget transfer | ☐ | ☐ | ☐ |
| 1.6 Slow financial liquidation affected the program | ☐ | ☐ | ☐ |
| 1.7 Absence of performance-based budget transfer | ☐ | ☐ | ☐ |
| **2.0 The main perceived reason behind the program delay** | | | |
| 2.1 Program target and deliverables were clear | ☐ | ☐ | ☐ |
| 2.2 Sufficient time spent on annual planning | ☐ | ☐ | ☐ |

| | | | |
|---|---|---|---|
| 2.3 The staffs had knowledge and skill to manage the program | ☐ | ☐ | ☐ |
| 2.4 Staff turnover was high | ☐ | ☐ | ☐ |
| 2.5 Drought or ADW response affected the program | ☐ | ☐ | ☐ |
| 2.6 Lack of proper handover note and activities | ☐ | ☐ | ☐ |
| 2.7 Civil unrest or political instability | ☐ | ☐ | ☐ |

**2.8 How do you prioritize the perceived reason behind the program delay?**

2.8.1 In your own opinion, which of the listed internal perceived reasons were/are contributed for the program delay? Write to indicate the rank from 1=most useful, 2=moderately useful, 3= useful and 4=least useful of the top four internal reasons contributed for the program delay.

| | **Rank** |
|---|---|
| 2.8.1.1 Inadequate per diem payment at district | ☐ |
| 2.8.1.2 Lack of transport for implementation and monitoring | ☐ |
| 2.8.1.3 Adequacy of time for annual planning | ☐ |
| 2.8.1.4 Slow financial liquidation | ☐ |
| 2.8.1.5 Staffs knowledge and skill to manage the program | ☐ |
| 2.8.1.6 High staff turnover | ☐ |
| 2.8.1.7 Lack of proper handover note and activities | ☐ |

2.8.2 In your own opinion, which of the listed external perceived reasons were/are contributed for the program delay? Write to indicate the rank from 1=most useful, 2=moderately useful, 3= useful and 4=least useful of the top four external reasons contributed for the program delay.

| | **Rank** |
|---|---|
| 2.8.2.1 Timely technical support obtained from regions/zones or federal | ☐ |
| 2.8.2.2 Adequate technical support obtained from regions/zones or federal | ☐ |
| 2.8.2.3 Lengthy budget transfer | ☐ |
| 2.8.2.4 Unclear program targets and deliverables | ☐ |

2.8.2.5 Absence of performance-based budget release ☐

2.8.2.6 Drought or ADW response ☐

2.8.2.7 Civil unrest or political instability ☐

Annex 2. Responses of the program delay questions organized in 3-point Liker scale

| **Participants Code** | **Questions Code and Response** | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Q1.1 | Q1.2 | Q1.3 | Q1.4 | Q1.5 | Q1.6 | Q1.7 | Q2.1 | Q2.2 | Q2.3 | Q2.4 | Q2.5 | Q2.6 | Q2.7 |
| F01 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| F02 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| AR | 3 | 3 | 1 | 3 | 1 | 1 | 1 | 1 | 3 | 3 | 1 | 1 | 1 | 1 |
| ARW1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| ARW2 | 3 | 3 | 1 | 3 | 3 | 1 | 1 | 3 | 3 | 3 | 1 | 3 | 3 | 1 |
| ARW3 | 1 | 1 | 3 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| ARW4 | 3 | 3 | 1 | 1 | 1 | 1 | 1 | 3 | 3 | 1 | 1 | 1 | 3 | 1 |
| ARW5 | 3 | 3 | 3 | 1 | 1 | 1 | 1 | 3 | 3 | 1 | 1 | 3 | 3 | 3 |
| ARW6 | 3 | 3 | 1 | 3 | 3 | 1 | 1 | 3 | 3 | 3 | 1 | 3 | 1 | 1 |
| ARW7 | 1 | 3 | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 1 | 1 | 1 | 1 | 1 |
| ARW8 | 3 | 3 | 1 | 3 | 3 | 1 | 1 | 3 | 3 | 3 | 1 | 1 | 3 | 3 |
| ARW9 | 1 | 3 | 1 | 3 | 3 | 1 | 1 | 2 | 3 | 1 | 3 | 3 | 3 | 3 |
| ARW10 | 3 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 1 | 1 | 1 | 1 |
| ARW11 | 1 | 3 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 1 | 1 | 1 | 1 |
| ARW12 | 1 | 3 | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 3 | 1 | 1 | 1 | 1 |
| TR | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 1 | 2 | 1 | 3 | 3 |
| TRW1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 1 | 1 | 3 |

| **Participants Code** | **Questions Code and Response** | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Q1.1 | Q1.2 | Q1.3 | Q1.4 | Q1.5 | Q1.6 | Q1.7 | Q2.1 | Q2.2 | Q2.3 | Q2.4 | Q2.5 | Q2.6 | Q2.7 |
| TRW2 | 3 | 3 | 1 | 1 | 2 | 3 | 3 | 1 | 1 | 3 | 3 | 1 | 3 | 3 |
| TRW3 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 |
| TRW4 | 2 | 1 | 1 | 1 | 2 | 3 | 2 | 1 | 3 | 1 | 3 | 1 | 3 | 3 |
| OR | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 1 | 1 | 2 | 1 | 1 | 1 | 1 |
| ORW1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| ORW2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| ORW3 | 2 | 1 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 2 |
| ORW4 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| ORW5 | 2 | 1 | 1 | 1 | 2 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 1 | 1 |
| ORW6 | 1 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 1 | 1 | 2 |
| ORW7 | 1 | 2 | 1 | 2 | 1 | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 1 | 1 |
| ORW8 | 3 | 2 | 1 | 2 | 3 | 1 | 3 | 3 | 2 | 3 | 1 | 3 | 1 | 1 |
| ORW9 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| ORW10 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| ORW11 | 3 | 3 | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 1 | 1 | 3 | 1 | 1 |
| ORW12 | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 1 | 2 | 1 | 1 | 1 | 2 | 1 |
| ORW13 | 1 | 1 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| ORW14 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| SR | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |

| **Participants Code** | **Questions Code and Response** | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Q1.1 | Q1.2 | Q1.3 | Q1.4 | Q1.5 | Q1.6 | Q1.7 | Q2.1 | Q2.2 | Q2.3 | Q2.4 | Q2.5 | Q2.6 | Q2.7 |
| SRW1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| SRW2 | 2 | 1 | 3 | 3 | 3 | 1 | 2 | 1 | 1 | 2 | 3 | 3 | 1 | 3 |
| SRW3 | 1 | 1 | 1 | 3 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 3 |
| SRW4 | 1 | 2 | 1 | 1 | 1 | 2 | 1 | 3 | 1 | 1 | 2 | 1 | 1 | 1 |
| SRW5 | 2 | 3 | 1 | 1 | 1 | 3 | 1 | 1 | 1 | 1 | 3 | 3 | 2 | 3 |
| SRW6 | 1 | 1 | 1 | 3 | 1 | 3 | 1 | 1 | 1 | 1 | 3 | 3 | 3 | 3 |
| SRW7 | 1 | 1 | 3 | 3 | 3 | 3 | 3 | 1 | 2 | 2 | 1 | 3 | 3 | 2 |
| SRW8 | 1 | 1 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 |
| SRW9 | 1 | 2 | 3 | 3 | 1 | 3 | 2 | 1 | 1 | 1 | 3 | 3 | 3 | 3 |
| SRW10 | 2 | 2 | 1 | 1 | 1 | 2 | 1 | 1 | 1 | 1 | 3 | 1 | 1 | 1 |

NB: 1 = Agree, 2= Neutral 3= Disagree

Annex 3: Summary of responses of the questions

| Code<br>Questions | Responses | | |
|---|---|---|---|
| | **Agree** | **Neutral** | **Disagree** |
| Q1.1 | 29 | 7 | 10 |
| Q1.2 | 24 | 9 | 13 |
| Q1.3 | 37 | 4 | 5 |
| Q1.4 | 32 | 4 | 10 |
| Q1.5 | 36 | 3 | 7 |
| Q1.6 | 37 | 3 | 6 |
| Q1.7 | 38 | 3 | 5 |
| Q2.1 | 37 | 2 | 7 |
| Q2.2 | 29 | 6 | 11 |
| Q2.3 | 31 | 6 | 9 |
| Q2.4 | 33 | 5 | 8 |
| Q2.5 | 34 | 1 | 11 |
| Q2.6 | 33 | 2 | 11 |
| Q2.7 | 29 | 5 | 12 |

Annex 4: Ranking of internal and external program delay perceived reasons

| **Participants Code** | **Questions Code and responses of internal and external perceived reasons** | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 2.8.1.1 | 2.8.1.2 | 2.8.1.3 | 2.8.1.4 | 2.8.1.5 | 2.8.1.6 | 2.8.1.7 | 2.8.2.1 | 2.8.2.2 | 2.8.2.3 | 2.8.2.4 | 2.8.2.5 | 2.8.2.6 | 2.8.2.7 |
| F01 | 1 | 2 | | | | 3 | 3 | | | 3 | | 3 | 1 | 1 |
| F02 | 1 | 2 | | | | 3 | 3 | | | 3 | | 3 | 1 | 1 |
| AR | | 1 | | 1 | 1 | 1 | | | | 1 | | 1 | 1 | 1 |
| ARW1 | 2 | 1 | | | | 1 | 2 | 1 | 1 | 2 | | 2 | | |
| ARW2 | 1 | 1 | | 2 | 1 | | | 1 | | 1 | 1 | | | 2 |
| ARW3 | | | | 1 | 2 | 1 | 1 | | | 1 | | 1 | 2 | 2 |
| ARW4 | | | | | | | | | | | | | | |
| ARW5 | 1 | | | 2 | | 1 | 1 | 2 | 3 | 2 | | | 1 | |
| ARW6 | | 1 | | 3 | 1 | | 1 | 1 | 2 | | 2 | | | 2 |
| ARW7 | 3 | 2 | | | 1 | 4 | | 1 | 2 | | | 4 | 3 | |
| ARW8 | 1 | | | 2 | | 1 | 2 | 2 | | 2 | | 2 | | 1 |
| ARW9 | 2 | | | 1 | 1 | | 2 | | 2 | 2 | 2 | | | 1 |
| ARW10 | 1 | 2 | | 3 | 2 | | | 1 | 3 | 2 | 4 | | | |
| ARW11 | 1 | 2 | | | | 3 | 3 | 3 | 3 | 1 | | 1 | | |
| ARW12 | 1 | | 1 | | 1 | 1 | | 1 | | 1 | | 2 | | 2 |
| TR | 2 | 1 | 4 | 3 | | | | 3 | 4 | 1 | | | 2 | |
| TRW1 | 1 | | 2 | 3 | 4 | | | 4 | 2 | 3 | | | 1 | |

| Participants Code | Questions Code and responses of internal and external perceived reasons | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 2.8.1.1 | 2.8.1.2 | 2.8.1.3 | 2.8.1.4 | 2.8.1.5 | 2.8.1.6 | 2.8.1.7 | 2.8.2.1 | 2.8.2.2 | 2.8.2.3 | 2.8.2.4 | 2.8.2.5 | 2.8.2.6 | 2.8.2.7 |
| TRW2 | 3 | 1 | 4 | | 2 | | | 3 | 1 | | | 4 | 2 | |
| TRW3 | 1 | | 4 | 3 | | | 2 | | 2 | 3 | | 4 | 1 | |
| TRW4 | 1 | 2 | 3 | 4 | | | | 3 | 2 | 4 | | | 1 | |
| OR | | 1 | | 1 | | 1 | 1 | | 3 | 1 | | | 3 | 1 |
| ORW1 | | | | | | | | | | | | | | |
| ORW2 | | | | | | | | | | | | | | |
| ORW3 | 3 | 4 | | 1 | | 1 | | | 1 | 3 | | 3 | 1 | |
| ORW4 | | | | | | | | | | | | | | |
| ORW5 | 1 | 2 | | 1 | | 2 | | 1 | | 1 | | 3 | 1 | |
| ORW6 | | 2 | | 1 | | 3 | 4 | 2 | | 3 | 1 | 3 | | |
| ORW7 | | 2 | | 1 | | 3 | 3 | 1 | | 2 | | 2 | 2 | |
| ORW8 | | | | | | | | | | | | | | |
| ORW9 | | | | | | | | | | | | | | |
| ORW10 | | | | | | | | | | | | | | |
| ORW11 | 1 | 1 | | 1 | | | 1 | 1 | | 1 | | 1 | | 3 |
| ORW12 | 1 | 1 | | 1 | | 1 | | 1 | | 1 | | 3 | | 4 |
| ORW13 | 1 | 1 | | 3 | | 1 | | 1 | | 1 | | 3 | | 3 |
| ORW14 | 1 | 1 | | 3 | | | 3 | | | 3 | | 3 | 3 | 3 |
| SR | 3 | 1 | | | 4 | 2 | | | | 4 | | 1 | 3 | 2 |

| Participants Code | Questions Code and responses of internal and external perceived reasons | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 2.8.1.1 | 2.8.1.2 | 2.8.1.3 | 2.8.1.4 | 2.8.1.5 | 2.8.1.6 | 2.8.1.7 | 2.8.2.1 | 2.8.2.2 | 2.8.2.3 | 2.8.2.4 | 2.8.2.5 | 2.8.2.6 | 2.8.2.7 |
| SRW1 | 3 | 1 | 2 | 4 | | | | 4 | 2 | | | 1 | | 3 |
| SRW2 | 2 | | 4 | 1 | 3 | | | 4 | | 3 | | | 1 | 2 |
| SRW3 | | | | 1 | 4 | 2 | 3 | | | 3 | | 4 | 2 | 1 |
| SRW4 | 3 | 2 | 4 | | | 1 | | 4 | | 3 | | | 1 | 2 |
| SRW5 | 1 | 1 | | 3 | | | 3 | 2 | 1 | 1 | | 1 | | |
| SRW6 | 1 | 3 | 4 | | | 2 | | 3 | 4 | 1 | | | | 2 |
| SRW7 | 2 | 4 | 1 | | 3 | | | | | 3 | 4 | 1 | | 2 |
| SRW8 | | 1 | | 2 | 3 | | 4 | 2 | 1 | 3 | | 4 | | |
| SRW9 | | 4 | | | 2 | 1 | 3 | 3 | 2 | 1 | 4 | | | |
| SRW10 | 1 | 3 | 2 | | | | 4 | 4 | 3 | | | | 4 | 1 |

**DECLARATION**

I, Mesfin Sahele, Registration Number/I.D. Number SGS/0116/2009B, do hereby declare that this Thesis is my original work and that it has not been submitted partially; or in full, by any other person for an award of a degree in any other university/institution.

**Name of Participant:** Mesfin Sahele Signature**:**_____

St. Mary's University, Addis Ababa June 2019

**ENDORSEMENT**

This thesis has been submitted to St. Mary‟s University, School of Graduate Studies for examination with my approval as a university advisor.

Chalachew Getahun (PhD) _____

Advisor Signature

St. Mary's University, Addis Ababa June 2019