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An Exploratory Study on Communication Practice in Environmental
Protection: A.A .City Government Environmental Protection Green
Development Commission in Focus.

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This is to certify that the thesis prepared by Alexander Tesfaye, entitled **An Exploratory Study on Communication Practice in Environmental Protection: A.A City Government Environmental Protection Green Development Commission in Focus**, and submitted in partial fulfillment of the requirements for the Degree of Master of Arts in Journalism and Communication. It complies with the regulations of the University and notes the accepted standards with respect to originality and quality.

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Abstract

The strategic communication practice to create awareness and bring behavioral change towards the use of local eco-friendly innovations among the residents of the Addis Ababa is more demanding and urgent than ever before. A.A City Government Environmental Protection Green Development Commission's strategic communication practice is vital towards this ,in creating safe and friendly environment through communicating the benefit of local ecofriendly innovation products.

In this regard, the study is aimed at exploring Addis Ababa City Government Environmental Protection Green Development Commission strategic communication practices towards using environmentally friendly local innovations to substitute plastic bags and plastic bottles.

*The study also attempts to explore **the effectiveness** of the communication channels used by the commission and encountered challenges during the course of communicating the public and coordinating with the other state and non-state significant actors.*

*In order to achieve this, the basic method of data collection method was through in-depth interview, field observation and document review. Total samples of 25 interviewees are selected **purposefully** with **expert sampling** and **snowballing technique**. From the total of 8 government and non-government organizations which are taken for the study, A.A City Government Environmental Protection Green Development Commission is the center of the study, which its communication practice has been explored. And the rest identified as key actors.*

*The finding from the study showed that A.A City Government Environmental Protection Green Development Commission communication has lacked strategic communication practice, thus the benefit of local ecofriendly innovation **is not communicated effectively**. Strategic channels of communication mainly broadcasting media, social media, print media and public signage are not incorporated in the communication practice. The communication practice of the commission and other key actors of state and non-state organizations are not coordinated to send the environmental message as *One Voice* to the public.*

Finally, in order to bring pro environmental behavior among the public towards the use of local environmentally friendly innovations ,the strategic communication practice should be considered . The commission has to coordinate its environmental communication practice and should incorporate the key actors in its communication plan as well. In addition, integrating the strategic communication channels mainly broadcasting, social medias and public signage have to employed for effectively communicating the public.

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LIST OF ACRONYMS

AAEPGDC	A.A City Government Environmental Protection Green Development Commission
EEFCCC	Ethiopian Environment, Forest and Climate Change Commission
EIPO	Ethiopian Intellectual Property Office
FFE	Forum For Environment
IKED	International organization for Knowledge, Economy and Development
OECD	Organization for Economic Cooperation and Development
UNEP	United Nation Environmental Program

CHAPTER ONE

Introduction

1.1. Background of the Study

Environmental communication provides all the knowledge and tools the communicators need to reach its target audience in a persuasive and highly professional manner. Informing the public to create environmental behavior is now a critical part of the job for the practitioner as well as to the organization.

Kathleen (2014) described, 'It's More Than Planting Trees, It's Planting Ideas'. This to imply while conveying environmental messages, it is not merely to provide information but mainly to bring environmental behavior among the target audience.

Environmental communication demonstrates, step by step, how it's done, and is an essential guide for communicating complex information to the public with environmental issue or other public agenda **for action** (Jurin, Roush & Danter, 2000).

For this, organizations for effective communication (i.e. to bring pro environmental behavior among the public), the strategic designing and implementation of the communication is vital. .UNEP (2009) similarly mentioned, organization's entire communications process, from message planning, audience analysis and media relations to public speaking formulated and **practiced strategically** .Thus, strategic communications more than before become crucial activity within environmental institutions when each institution as leading role player are expected to bring behavioral change towards environmental protection.

Frandsen and Johansen (2017) also explicitly described about the essentiality of strategic formulation and implementation of the communication for effectively communicating the audience or for achieving organizational goal; as it examines how organizations use communication purposefully to fulfill their mission. Organizations, including private and public sectors, NGOs, and pressure groups and others should consider the use strategic communication to reach their goals.

Similarly, environmental institutions in Ethiopia to mention Addis Ababa City Government Environmental Protection Green Development Commission are expected also to do the same to bring pro environmental behavior while communicating the public towards environmental issue.. For this, the use communication channels and their strategic implementation are the key to effectiveness of communication within the organization and to achieve their goal, i.e. creating awareness and bring behavioral change of the public towards the use of environmental friendly products.

The focus of the study is Addis Ababa City Government Environmental Protection Green Development Commission. As it is environmental protection authority organ which is established under as autonomous public institution of the Federal Government, mainly responsible to provide instructions and communicate required enhancing public awareness of the need for environmental protection and strengthening public participation to **bring them to action**.

Thus, the research in particular focuses its study on the commission's communication practice with perspective of effectiveness and strategic communication approach .The main elements in strategic approach and communication channels used to convey message are considered much in-depth. In general, the study has given much focus on environmental communication of the commission and the strategic approach and elements incorporated to bring the overall effectiveness within the organization communication practice.

1.1. Statement of the Problem

Environmental communication practice within environmental institutions should not be regarded simply as conventional practice, in which the strategic elements of communication are overlooked. Without incorporating the strategic elements of communication, the entire environmental undertaking is jeopardized. Organizational communication effectiveness achieved as the organization primarily implement strategic communication (UNEP, 2009).

Organizations communicate purposefully to advance their mission. This is the essence of strategic communication. Strategic communication as a tool used in health campaigns and environmental activism. Organizations use an expanding variety of methods to influence the behaviors of their constituencies—what people know, how people feel, and the ways people act. Strategic

communication recognizes that purposeful influence is the fundamental goal of communications by organizations (Radtke, 1998).

Similarly, the essentiality of strategic development and implementation of communication is clearly stated in World Health Organization (2017), Strategic Communication Framework for Effective Communications, according to the organization when communication strategically designed, communicators would be able to consider the right channel's reach and influence, for example: mass media channels, such as TV, radio, community billboards, and posters on public transportation, have broad reach and can increase issue awareness, move target audiences along a communications continuum from awareness to action.

Likewise, environmental institutions to mention Addis Ababa City Government Environmental Protection Green Development Commission are highly demanded to strategically design and implement their communication practice to achieve their goal (i.e. to bring pro environmental behavior among the public).

With this regard, the study has taken the aforementioned framework of strategic communication which brings effectiveness to the organization communication practice. Thus, the study explores whether the essential elements of strategic communication are incorporated and employed within A.A City Government Environmental Protection Green Development Commission communication to move the public from awareness to action (i.e. pro environmental behavior).

Due to this, the communication effectiveness of many environmental institutions including A.A City Government Environmental Protection Green Development Commission are even questioned by the Ministry of Solid and Hazardous Waste Compliance Director, Girma Gemechu. He once urged the responsible bodies on his interview with Ethiopian Herald weekly newspaper (Ethiopian Herald, 2018), all concerned parties primarily the responsible government environmental protection institutions have to use effective means of communication to reach the public and create awareness on environmental issue at least reducing to use of hazardous products from our daily life. And since these responsible environmental offices poorly communicate the public surprisingly most people consider the environmental issue as the least priority or luxurious agenda for them.

The above notion was also similarly mentioned by Meaza Cheru (2016) from Helsinki Metropolitan University of Applied Sciences in her study on Solid Waste Management in Addis Ababa. She

stated that **awareness** about the environmental issues particularly about environmental protection is **quite low in main cities** of Ethiopia including the capital city, when even compared to neighboring countries such as Kenya or Rwanda the difference is significant.

The present research made its focus on perspective of effectiveness and its strategic communication approach. Subsequently, considers main elements incorporated in it and the channels used to send message to the public towards use of eco-friendly innovative products. Furthermore, the researcher is not able to find any research which has been conducted by communication scholars on the environmental communication practice particularly on the public relation field within Ethiopia.

Therefore, considering aforementioned, the study attempts to find answers to the following questions:

- Does the commission have strategic approach towards having a safe and friendly environment?
- How are the communication channels employed by the commission towards using environmentally friendly products? Are they effective?
- What are the challenges encountered by the commission while communicating to the public?
- How are local eco innovations communicated to the public in Addis Ababa?

1.2. Objective of the Study

The study aimed to explore effectiveness of communication practice within the A.A City Government Environmental Protection Green Development Commission to bring pro environmental behavior among the public of Addis Ababa towards using environmentally friendly local innovations.

The specific objectives of the research are:

- to find out whether the commission has strategic communication approaches towards having a safe and friendly environment.
- to evaluate how local eco innovations are communicated to the public of Addis Ababa.
- to examine the effectiveness of the communication channels employed by the commission towards use of local eco friendly products.
- to identify the challenges encountered by the commission while communicating the public.

1.3. Significance of the Study

The significance of this research mainly lies in the lack of relevant studies in the area. To deepen the understanding of effective environmental communication and the importance of strategic communication, particularly the channels employed incorporated towards communicating the benefit of local eco-innovation. There are very few journals with limited focus on the environmental issue not on the communication practice perspective particularly within the government environmental institutions exist. Thus, to fill this gap, the research attempted to study environmental communication practice within government environmental institutions in relation to local eco innovations.

Furthermore, A.A. City Government Environmental Protection Green Development Commission itself could identify the gaps along the way, thus workable solutions can be put forward based on findings of the present study. The study can also serve as a spring board for other relevant studies.

1.4. Scope of the Study

The researcher delimits its scope of study within A.A City Government Environmental Protection Green Development Commission, first because it is established under as an autonomous public institution of the Federal Government solely for environmental protection. They have the authority to draft and enforce environmental policy for its implementation and provide instruction required to enhance awareness of the need for environmental protection in Addis Ababa. Secondly, other similar environmental governmental organs, for instance the Ethiopian Environment Forest Climate Change Commission have wider national level functioning and also it has distant link with the topic of the study than this institution. Thus, the study delimited its scope in the aforementioned institution and Addis Ababa.

Furthermore, the study focuses on the environmental communication practice and strategic approach, elements incorporated and the channels used within strategic application to bring the overall communication effectiveness within the institution's communication practice.

1.5. Limitation of the Study

Environmental protection communication as it is emerging discipline and its application as public relation practitioner particularly to some interviewees, the researcher challenged by the view given by respondents which lack the communication perspective while most interviewees' incline

to the technical aspect of environmental protection activities. The absence of well documentation of communication practices at the commission made the effort of finding relevant documents challenging. In addition, unavailability of research on environmental protection communication from the public relation perspective to Ethiopian context made the researcher less benefited to design his research.

1.6. Organization of the thesis

The research consists five chapters, the first chapter highlights the background of the study and statement of the problem alongside its objective of the study, significance, scope and limitation of the study. The second chapter focuses on review of related literature. The third chapter presents the overall research methodology. The fourth chapter is all about data presentation and analysis. Finally, the fifth chapter includes conclusion, summary and recommendations.

CHAPTER TWO

Review of Related Literature

2.1. Introduction

This chapter focuses on the basic issues related to effective environmental communication including definitions, effective communication, strategic communication, relevance of strategic communication, barriers to effective communication, theories of environmental communication, communication campaign, eco innovation, plastic waste pollution in Addis Ababa, conceptual model.

2.2. Environmental communication

Environmental communication is multi-disciplinary field of study and a practice, and it has a range of multiple mode of influence starting from the media, in business, government affairs to the day to day life. Environmental communications are practiced in every sector of the economy. The field is becoming more and more important as the stakes have become greater and the tools for communicating become strategic (EnviroEducation.com, 2004).

Lester (2010), environmental communication describes the many ways and the forms in which citizens, corporations, public officials, journalists, and environmental groups raise concerns and attempt to influence the important decisions or behavior that affect our planet. They and others realize that our understanding of nature and our actions toward the environment depend not only on science but on public debate, media, the Internet, and even ordinary conversations. Thus, it would able to recognize the range of voices and practices through which environmental groups, ordinary citizens, businesses, and others how strategically practice their communication.

2.2.1. Definition of Environmental Communication

In the beginning, environmental communication was a narrow area of communication; however, now a day, it is a broad field that includes research and practices regarding how different actors (e.g. institutions, states, and people) interact with regard to topic related to the environment and how products or services influence society toward

environmental issues. As a result, environmental communication is complex, involving verbal, nonverbal, personal, interpersonal, and visual communication (Cox, 2010).

Environmental communication is the dissemination of information and the implementation of communication practices that are related to the environment. The term environmental communication is the pragmatic and constitutive vehicle for our understanding of the environment as well as our relationships to the natural world. It is the symbolic medium that we use in constructing environmental problems and in negotiating society's different responses to them (Hansen, 2010).

2.3. Effective Communication

Ezeue, (2008), effective communication is an indispensable organizational influential tool. It permeates every facets of organization. It is a crucial instrument of social interactions and a medium through which all relationships are established and maintained through transmission of common understanding using channels of communication.

Communication as it is basic function in organizational performance; it plays a vital role in the attainment of goals. Its failure could then be traceable to poor application of communication. Success or failure of organizational functions depends to a great extent on the effectiveness of communication in the organization.

Therefore, as Lawson (2006) explains on the relevance effective communication for any organization, it is a foundation upon which every organization irrespective of size and structure must build their communication practice to attaining organizational mission. It is a two-way process that requires effort and skill and active engagement by both parties. Although effective communication contributes significantly to the organizational success, it is largely dependent on the strategic design and execution of communication channels with appropriate selection and integration in relation to how receptive or accessible are the target audience. Effective communication enhances organizational relationship and the influence on the audience.

Furthermore, Peterson and Feldpaush (2000) describe regarding the essentiality of strategic practice of communication to create effectiveness. Communication has to design strategically to secure effectiveness to achieve organizational mission. Mere practices do not assure the high value of communication. Through environmental communication ,an organization creates effective coordination with other diverse groups and institutions which held similar environmental values.

Formulating and implementing environmental communication strategically that enable the public to aware environmental issues and accordingly to let them to environmentally behave is the ultimate goal.

2.3.1. Strategic Communication

Strategic communication is the practice of deliberate and purposive communication that the communication agents enacts in the public sphere on behalf of a communicative entity to attain the set goals (Holtzhausen and Zerfass,2013).

Tyson, (2004) strategic communication is particularly significant for effective organizational communication performance to achieve its goal. When the communication practice determined as strategic; first, the activities are not random or unintentional communications even though unintended consequences of communications can adversely impact the ability of an organization to achieve its strategic goals. Importantly, strategic must not be defined narrowly. Instead, strategic is a rich, multidimensional concept that needs to be examined broadly. Second, the concept of strategic communication emphasizes the fact that communication ought to be the focal interest of at organizational level. The value of such an approach is readily apparent if communication is defined as the constitutive activity of management.

2.3.2. Relevance of Strategic Communication for Effectiveness

According to World Health Organization, (2017), Strategic Communication Framework for Effective Communications, relevance of strategic communications on public issues has to increase the sense of relevance to an environmental or health issue by referring to the personal experiences of the audience or explaining how the issue can affect family, friends or others they may know in their community. For policy-makers, health or environmental issues are perceived as relevant if they are represented as a high priority for constituents, or are linked to other national and community values, such as health and economic prosperity.

Communication can play an important role by raising awareness, increasing knowledge, influencing attitudes, and building confidence in changing into action.

2.3.2.1. Identify and Understand the Audience

Henry (2010),effective communicators must understand target audience to develop a communications strategy relevant to decision-makers. Communicators stay aware of what a target audience knows about an environmental issue. Listening and

understanding gives communicators insight into what people think about an issue and how they may act based on their understanding.

Davis (1995), communicators can identify and understand the characteristics of the target audience to design communication strategies considering the below mentioned points.

2.3.2.2. Understand Socio-Demographic and Cultural Characteristics

Age, gender, educational background, income, geographic location, cultural beliefs and civic structure all influence how people receive messages. To develop relevant messaging, communicators must learn how these characteristics influence a target audience and craft materials and engagements that appeal to those individuals and communities.

2.3.2.3. Determine Communication Preferences

- a) Messaging is most effective when it aligns with target audience preferences.

Communicators should consider:

- b) How the target audience prefers to receive messages;
- c) What communications channels the target audience uses;
- d) What messengers the target audience trusts; and
- e) Any preferences the target audience has for product format and design.

2.3.2.4..Listen to Partners

Wilson and Ogden, (2004) partners, including less traditional partners such as religious groups and business associations, provide different perspectives based on their networks and listening methods. Communicators should be aware of what partners believe the target audience thinks and needs. Communicators have to regularly report on current partner messaging. With timely information, communicators can monitor whether partner messaging aligns with the environmental communicators information, advice and guidance. In addition, communicators are encouraged to engage directly with counterparts in partner agencies to ask about their understanding of decision-makers' knowledge, attitudes, and actions related to the health topic.

2.3.2.5. Tailor the Message

Customizing communications ensures the relevance of environmental information for target audiences. Message design can influence the effectiveness of a message. For example, if a target

audience has health/environmental beliefs and values already consistent with those presented in a message, using statistics can be persuasive. If audience beliefs are counter to recommendations, emotional stories may be more effective.

2.3.2.5. Customize Messages

Communicators must customize messaging to meet the needs and values of specific target audiences. The following methods can be used to tailor content and messages to specific audiences.

- a) **Make** the content relevant to the specific audience, which may be individuals, communities, health care providers, environmental concern parties, policy-makers, international organizations or employees.
- b) Address the barriers decision-makers may face when trying to take recommended action.
- c) Send messages through the audience's preferred communications channels.
- d) Consider the requirements of specific communications channels. For example, social media works best with short messages accompanied by interesting graphics.
- e) Use colors that relate to the content. For example, blues and greens tend to evoke calm, and reds tend to facilitate anxiety or alertness.
- f) Incorporate cultural symbols, such as familiar foods, dress, family gatherings and community settings, to help audiences relate to the environment information. Ensure that messages do not include cultural symbols that might offend or that audiences cannot relate to.

2.3.2.6. Focus on the Outcome

Communicators need to develop messages that focus on the desired single overarching communications outcome. This focus will help communicators make sure to:

- engage the target audience
- achieve desired outcomes
- communicate the issue effectively.

When creating messages, communicators should identify three key supporting points, each with supporting facts, statistics and examples, to accomplish that outcome. Audiences are able to retain a small number of ideas, but are unlikely to retain messages that include numerous steps, actions, or reasons for change.

2.4. Channel Selection within Strategic Communication

Hallahan, (2004) by using communication tools and activities, organizations can promote positive attitudes and behaviors towards their organizational objectives and mission, and will help convert ordinary constituencies to the intended behavior accordingly. Communication channels in strategic application and often give you a greater degree of control to targeted audience for achieving the mission. The application of channels mentioned here below are the main strategic communication tools which create effectiveness.

2.4.1. External Relations

Working with other organizations, known as external relations, is an important component of public relations. Organizations are encouraged to collaborate on projects with other groups locally, nationally, and internationally.

Collaboration with other organizations can help increase public awareness of organizations activities, multiply the impact of the message, and expand even to access to technical and financial resources.

2.4.2. Cable and Public- Access Broadcasting

This includes public access cable television and radio which provides environmental based programming to broadcast its service activities and special events. Organizations have even taken advantage of cable television or radio station by producing and airing entire program devoted to public organizations.

Similarly, Public Service Announcements Television and radio stations sometimes broadcast short announcements and messages at no charge to public organizations for instance health, education, environmental institutions.

Likewise, **print medias mainly newspaper**, may have unsold advertising slots they offer as “dedicated space or remnant space” for free or at reduced rates to nonprofits public organizations. Interviews, short messages or notices concerning public issue or some public events are suitable subjects for Public Service Announcement.

2.4.3. Effective Web Site

Creating and using effective Web sites is an important way to communicate the organizational message to the public. Tyson, (2004) an effective Web site is designed with specific audiences in mind by developing different sections which focus on different users. Keep the content clear and concise while avoiding environmental

jargon. Updating your content regularly is important as well as making it interactive. Uploading images, audio, and video adds to the overall feel of the site. Web sites to link to resources and articles at official Web site also feature news feed that organizations can incorporate into their sites' content for frequently updated organizations news headlines.

2.4.3. Social Medias

Now days the most effective tool for interactive or two-way communication is social media. Since the digital technological advancement is at most convenient in which users of social media could easily access at their convenience any time and place with the smart phone (Hanson 2018). Thus, using the platform make the organization strategically advantageous by influencing the receiver of the message as intended by the sender.

2.4.4. Billboards, Posters, and Signage

Build awareness by creating billboards, posters, or signage to show what the organization is and what it does. The graphics may also be useful for publications, stationery, or other print materials. This usually common when the message to be retained in the mind of audience for relatively permanent period of time while they see the message more often displayed on the main streets.

2.4.5. Social events

Social Events are opportunities for environmentalist to gain exposure for their mission and promote the environmental issue and make sure accurate information reaches targeted audiences. Events are a chance to counter people doubts and build public confidence. They can also help you research your audience readiness to act positively and strategize your way of communication.

2.4.6. Community Relations and Partnership

Building good relationships with members of the community where you send your message helps to build the intended behavior. Engaging local stakeholders and decision makers helps build your profile and level of influence, helping you to attract more members of community through word-of-mouth and ensuring your environmental issues are factored into community decision making. Community partnerships may involve an exchange of funds or in-kind benefits to grow a local community organization in return.

for benefits that promote your institutional influence. Partnerships can help community identify your mission with good environmental practice and social responsibility.

2.4.7. Presentations and Speeches

Meetings in the form of conferences, seminars, workshops and panel discussion are an effective face-to-face two-way means of communication. Organization invites guests of experts or prominent individuals as honorable guest speaker before an audience of professionals, students, or community to deliver message regarding public issue.

2.5. Usage of Multiple Channels for Effective Communication

Kreps(2002),This is Many-channel communication, transmitting of messages to the same audience through many channels (multiple channels) in order to ensure the message is delivered and bring the intended objective or behavior. The starting point is usually the division of the target audience into different segments, with the company selecting the channel through which to communicate, in an attempt to obtain the best customer response. Integrated communication strategy is the connective tissue that creates message consistency, clarity and understandability across all channels and finally ensure intended objective or mission achievability It considers who the target audiences are and how and where to communicate to engage them and move the business forward. Communication channels are important tools of activity in the strong impact intend to bring while in the transmissions of messages to the audience. They provide abilities of power and control to messages as well as understanding and performance to audience. Communication effectiveness and the use of multiple communications are separated but complement, because there is no effective communication without communication channels as well as no communication without effective communication. Both supplement each other when communication channels usually serve as utilization elements to bring effectiveness and behavioral change. The communication channels have significant effect in the whole communication system and practice of the communication to move the organization message forward.

The communication tools are bring about a sense of intended behavior and partnership between organization and the audience and among other key organizations to sustain and drive for the successful achievement of long term organization goals.

Communication channels are important elements of administration activity in the organization. Organization and communication cannot be separated into parties because there is no organization without communication as well as no communication without organization and both supplement each other when communication channels usually serve as utilization elements to encourage organizational communication effectiveness. The communication channels have significant effect in communication system and practice of the organization's mission to move the forward. Communication is the dynamic connection among top management, co-workers and employees.

2.6. Key State and Non State Actors in Environmental Communication

One of the primary purpose or function of communication is mutual understanding among the actors or participants of the communication for the common environmental agenda (issue). Environmental organizations, however, have the mission of ensuring that key actors and citizens do not forget their environmental responsibilities. Those responsibilities are to be put in place to protect the environment and at the grass-roots level the public maintains oversight on the specific actions (Clarke, 2000).

2.6.3. The Government

Governments have a duty to set standards, goals, and rules of behavior on an equitable basis. Governments can facilitate the attainment of goals, although in most cases actually achieving change is up to individuals and groups, including businesses, consumers, and investor's and innovators. Policies and laws are only effective if civil societies mainly want them to work, otherwise they are empty rhetoric or worse (Pittock, 2009).

2.6.4. Local and State Authorities

The local authority will play a key role in preparing public opinion for the behavioral changes that will be necessary to achieve environmental protection in the future. Therefore, the local authority provides the critical link between national legislation and policy, and its grassroots implementation. Local authorities have a responsibility to provide for the welfare of the community. In environmental terms it can prevent environmental damage before it occurs with appropriate communication planning (Nelson & Wright, 1995).

2.6.5. The Public

The public is concerned about jobs, general economic issues, property, and the quality of life in communities. Thus, the public concerns tend to be more diffuse than the single focus enjoyed by enforcers and producers. Because of that diffuseness, the public seldom speaks with a coherent voice, which makes it easier for activists and extremists on all sides of an issue to misrepresent or override the public will (Clarke, 2000).

2.6.6. The Private Sector

The producers have a completely different set of responsibilities, the foremost of which is the fact that they must continue on with their production task in order to survive; environmental issues are a secondary concern.

Communication campaigns should not be limited to mainstream communication media but should explore tried and true interpersonal and alternative channels as well. These approaches, to us, translate to meaningful praxis of convergence theory in the environmental sector (Clarke, 2000).

2.6.7. Non Governmental Organizations

Public Organization having a strong collaboration with NGO community can help to tackle the public issues more effectively.

Educational and research institutions, religious groups, environmental advocates, social justice advocates, professional bodies and many other associations, many with their own form of total or partial democracy. Collectively these groups are termed non- governmental organizations (NGOs) (Alam & Mubarak, 2012).

There is now also an increasing interest within civil society in environmental issues. This interest is leading to a need for more independent research, communication, and grassroots outreach. NGOs can play a very significant role in leading and promoting such initiatives. Moreover, the ability of NGOs to provide an independent view is crucial to building trust in the issues/causes and help enact behavioral or cultural change in communities [https://www.mei.edu/publications/role-ngos-tackling-environmental- issues](https://www.mei.edu/publications/role-ngos-tackling-environmental-issues) accessed on 25/03/2020.

2.7. Barriers to Effective Communication

Within the elements of communication as the sender, the encoding, the message, the medium, the decoding, the receiver, and the feedback, if noise exists in these elements in any way, complete clarity of meaning and understanding does not occur. According to

Eisenberg (2010) a number of barriers retard effective communication. These can be divided into four categories: process barriers, physical barriers, semantic barriers, and psychosocial barriers.

2.7.3. Process Barriers

Every step in the communication process is necessary for effective and good communication.

Blocked steps become barriers. The below listed are barriers of effective communication:

- Sender barrier.
- Encoding barrier.
- Medium barrier.
- Decoding barrier.
- Receiver barrier.
- Feedback barrier.

Because communication is a complex, give-and-take process, breakdowns anywhere in the cycle can block the transfer of understanding.

2.7.4. Physical Barriers

Any number of physical distractions can interfere with the effectiveness of communication, Interruptions such as telephone calls and drop-in visitors can be removed by issuing instructions to a secretary. An appropriate choice of media can overcome distance barriers between people.

2.7.5. Semantic Barriers

The words we choose, how we use them, and the meaning we attach to them cause many communication barriers. The problem is semantic, or the meaning of the words we use. The same word may mean different things to different people. Words and phrases such as efficiency, increased productivity, management prerogatives, and just cause may mean one thing to a school administrator, and something entirely different to a staff member (Hallahan, 2004). Technology also plays a part in semantic barriers to communication. Technical experts can understand. And if people don't understand the words, they cannot understand the message.

2.7.6. Psychosocial Barriers

Three important concepts are associated with psychological and social barriers: fields of experience, filtering, and psychological distance (Antos, 2011)). Fields of experience include people's backgrounds, perceptions, values, biases, needs, and expectations. Senders can encode and receivers decode messages only in the context of their fields of experience. When the sender's field of experience overlaps very little with the receiver's,

communication becomes difficult. Psychosocial barriers often involve a psychological distance

between people that is similar to actual physical distance.

2.8. Strategic Communication to Overcome the Barriers

The aim of strategic communicators is to minimize as much as possible barriers to communication and achieve organizational mission and intended objectives. The flow of communication among the various levels is top to bottom (downward communication) as well as from the bottom to top (upward communication). At each level of management, there is lateral or horizontal communication (Unamka and Ewurum, 1995). To overcome barriers to effective communication, a number of opinions are suggested by Hambagda (2000), Hybels and Weaver (1992). They include:

- a) Information overload should be discouraged. Message should be transmitted in the quantity the recipient can decoded and interpreted.
- b) Messages should be repeated and continuously transmitted for quiet some interval of time to prevent misunderstanding. Lawson, (2006) advised that problems should always be communicated quickly; because delays cost both the sender and receiver of the message
- c) The message should be well pre planned in order to bring the most intended objectives thus when to transmit, what message and how to transmit (channels) are the key to any communication .
- d) Appropriate channels of communication should be selected for transmitting information. The choice of channel is a function of the nature of the message to be transmitted.
- e) Communication is considered complete when a feedback is given to a message. This should be encouraged as a way of confirming how successful the communication was.

2.9. Communication Campaign

Communicators of organization to make their communication effective and to achieve organizational goal within a specified period of time, they decide to use communication campaigns as strategy of their communication plan. Cox (2009) mention communication campaign, it is intended to generate specific outcomes in a relatively large number of individuals, within a specified time, and through an organized set of communication

channels. In other words, campaigns employ communication strategies and theories to influence large audiences in some measurable way.

Perhaps more common in pro social campaigns the objective is to influence the public attitude, increase knowledge, promote awareness, or even change a behavior, or to persuade consumers to purchase or use a particular product, as he case with commercial marketing campaigns, or as is. Campaigns can be school- or community-based or regional, national, or international in their reach. Mass media campaigns, frequently used for their large reach, are most successful in increasing awareness and knowledge, while smaller school- or community-based campaigns are more likely to generate higher level changes in attitudes and behavior. Integration of mass media and interpersonal strategies creates the greatest likelihood for behavior change.

2.9.3. Environmental Communication Campaign

Environmental issues occupy an important position in governmental and civil society agendas. According to The Global Environmental Outlook 4 report from the United Nations Environment Program (UNEP), environmental problems such as climate change, excessive use of non-eco products, biodiversity loss are issues that pose significant challenges to humans (UNEP, 2012).In addition the report highlights the need to address these and other pressing challenges through adoption of environmental campaign.

Non-governmental organizations (NGOs) and governments have attempted to address these needs through environmental campaigns. Such campaigns usually raise awareness about environmental issues and challenges, engaging in communication strategies to achieve specific goals particularly pro environmental behavior.

2.9.4. Relevance of Environmental Campaign for Strategic Communication

Considering the above mentioned notion which state communication campaign as strategy of communication to create effectiveness, he further describes types of campaign. According to Cox (2009) there are different types of environmental communication campaigns: environmental advocacy campaigns, informational campaigns, and social marketing campaigns.

Environmental advocacy campaigns are comprised of broad forms of communication, such as public education, community organizing, boycotts, lobbying, or direct action.

Informational and social marketing campaigns base their planning and strategies through the use of marketing concepts (Weinreich, 2006).

Since many environmental campaigns are designed to change behaviors of individuals, scholars in communication and social-psychology fields have attempted to explain the pathways to behavior change by systematically examining influences on pro- environmental behavior. Kollmuss & Agyeman (2002) explains to this behavior as pro- environmental behavior that consciously seeks to minimize the negative impact of one's actions on the natural and built world. Stern (2000) mentions environmental behavior as the extent to which it changes the availability of materials or energy from the environment or alters the structure and dynamics of ecosystems or the biosphere itself.

The main purpose of this field of study is to predict pro-environmental behaviors through the analysis of a wide range of variables that influence those behaviors. Numerous theoretical models have been developed and applied in order to clarify connections between key variables and individual-level environmental behaviors.

However, across those conceptual models, the following four variables have been commonly used to predict and determine environmental behaviors: **knowledge, attitudes, values, and behavioral intentions.**

- **Environmental Knowledge**

Measuring how much a person knows about the existence, causes, and consequences of environmental problems is one of the most widely used variables associated with pro environmental behavior. Kollmuss and Agyeman (2002) state that environmental knowledge was considered the basic premise for people to develop concern for the environment, which would lead to adopting favorable behaviors for the environment. Nevertheless, it has been proven that, even if people know about environmental problems, barriers may still exist to engaging in activities that protect the environment. Knowing that using a bicycle instead of an automobile generates fewer pollutants, for example, does not guarantee that people will stop using their cars. In a study of a mass communication informational campaign, Staats et al. (1996) found that even though people were exposed to various communication instruments (e.g., television, newspaper, billboards, and brochures), a slight increase in their knowledge about the greenhouse effect did not enhance their environmental awareness nor lead to the development of pro-environmental behavior. In sum, environmental knowledge does not directly

determine pro-environmental behavior; however, it is an important variable to study in order to comprehend why people choose to engage in favorable behaviors.

- **Environmental Attitudes**

A second variable that scholars have examined in depth encompasses people's attitudes towards the environment. As mentioned earlier, early models predicted that knowledge would nurture pro-environmental attitudes, which in turn, would encourage people to behave pro environmentally. Environmental attitudes refer to the specific opinions people have about environmental issues or practices. Focused on the general attitudes that people have about the environment, Dunlap and Van Liere (2008) developed an instrument for measuring individuals' environmental concerns. Designed to assess people's affinity or distaste for what is called the New Environmental Paradigm (NEP). To more precisely measure attitudes related to specific behaviors rather than general beliefs about the environment, Ajzen and Fishbein developed the theory of reasoned action and the theory of planned behavior (Ajzen & Fishbein, 1980; Fishbein & Ajzen, 1975). They stated that "in order to find a high correlation between attitude and behavior the researcher has to measure the attitude toward that particular behavior" (cited in Kollmuss & Agyeman, 2002, p. 242). A premise of their approach is that, rather than directly affecting behavior, attitudes; influence another component that shapes our actions: behavioral intentions.

- **Environmental Values**

Environmental attitudes can also derive from specific values. Stern, Dietz, and Kalof (1993) maintain that altruistic-oriented values can influence the development of environmental attitudes. Their model is based on the Schwartz theory of altruism, which states that a person will engage in altruistic behavior if she or he becomes aware of the suffering of others, which in turn creates a sense of responsibility to reduce that suffering.

- **Behavioral Intentions**

Ajzen and Fishbein's theory of reasoned action affirms that attitudes influence behavioral intentions, which ultimately shape the way we act. In fact, their theory of reasoned action pin points behavioral intentions as "the best predictor of actual behavior, better than the attitude and knowledge components" (Kuhlemeier, Van Den Bergh, & Lagerweij, 1999, p.5). Behavioral intentions refer to the aims or willingness a person has to engage in a specific behavior.

2.10. Communicating Eco innovation for Environmental Protection

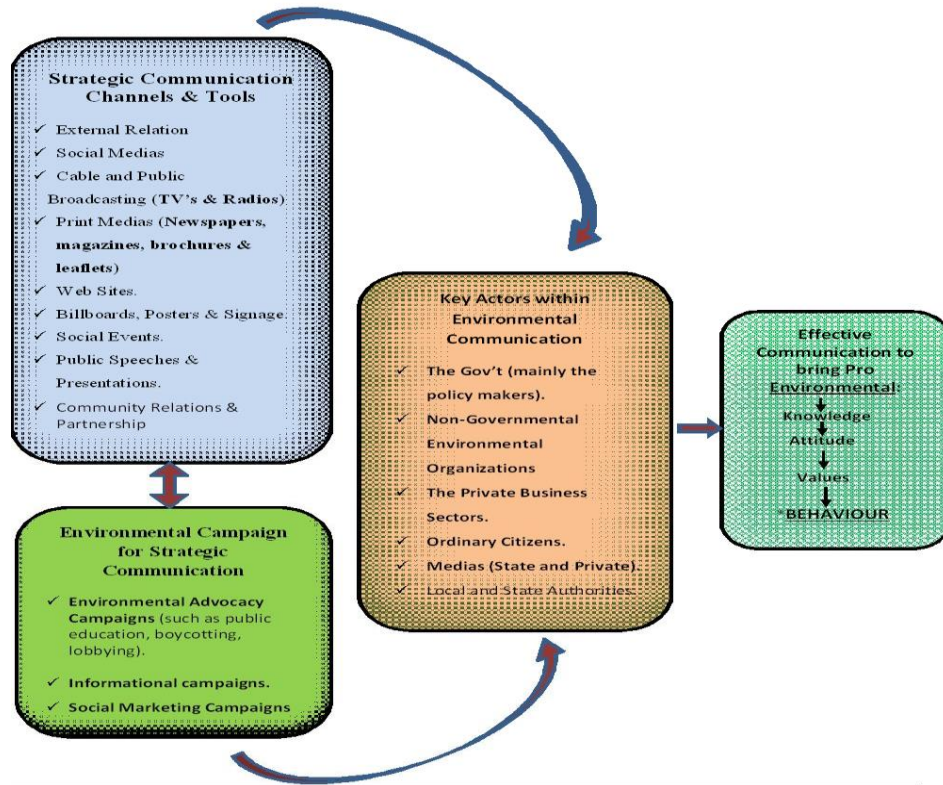
Environmental communications pertains to any profession which communicates an environmental or scientific message. This message can range from conservation of resources to **promotion of green products (i.e. locally innovative) to education of the public about environmental protection**, and environmental communications professionals are working in every sector of the economy from the largest corporations to the smallest newspapers. The field is becoming more and more important as the stakes have become greater and greater and the tools for communicating become more diverse. Corporations, government agencies, and conservation organizations all compete for public support. <http://www.enviroeducation.com/majors-programs/env-comm.html>, 2/4/04

Furthermore, **governments, institutions and international organizations are also interested in innovations to benefit from them.** Beneficiaries of such innovations, introduced by the wide range of entities, differentiate. Eco-innovation is the development of products or processes that contribute to sustainability by reducing the use of natural resources (materials, energy, water and land) and decreasing the release of harmful substances across the whole lifecycle while also offering customer and business value (EIO, 2010; EC, 2018). Eco-innovation is also called ‘green-innovation’ and it aims at the development of products, processes, skills or new business forms with direct or indirect ecological improvements in order to enhance sustainable development (Jo et., 2015).

2.10.3. Eco innovation for Reducing Environmental Pollution

The whole society or nation can take advantage of an innovation. A good example of such an innovation is eco-innovation. The idea of eco-innovation is quite recent. The eco-innovation concept appeared in the 1990s in the book by Claude Fussler and Peter James *Driving Eco-Innovation: A Breakthrough Discipline for Innovation and Sustainability* (Fussler & James, 1996). The authors define eco-innovations as “new products and processes creating value for enterprises and clients and reducing (negative) environmental effects”. In a subsequent article, Peter James defines eco-innovation as “new products and processes which provide customer and business value but significantly decrease environmental impacts” (James 1997).

Fig.1. Conceptual Model, Environmental Communication Description



CHAPTER THREE

RESEARCH METHODOLOGY

3.1. Introduction

This chapter focuses on the method that was employed in the study. The chapter includes discussion on research design and method, sampling techniques and size, instruments of data collection, procedure of data collection and method of data analysis.

3.2. Research Design and Methods

This research is qualitative and used exploratory method. Research design is the general plan of how you will go about answering your research question(s) and to meet research objectives (Bryman, 2012). Similarly, the research methods include all those techniques/methods that are adopted for conducting research. Thus, research techniques or methods are the methods that researchers adopt for conducting the research studies (Holloway, 2002). This research follows qualitative approach adopting exploratory method. Morse, (1991) stated that qualitative research is exploratory and is useful when the researcher intends to examine important variables. According to Polit et al (2009) also “explorative studies are undertaken when a new area is being investigated or when little is known about an area of interest.” Furthermore, a more exploratory stance was preferable to enable the researcher to learn about the problem or subject matter of the study from the participants inner subjective view deep perspective, in this connection, qualitative research served the researcher’s needs better, since it is typically associated with the generation of deep perspective rather than the testing of theory. This was also noted by Robson (2002), an exploratory study, can be very helpful to ‘find out what is happening [and] to seek new insights.

In-depth interview of key informants and unstructured observation employed to capture the more understand and subjective issues that enriched the research findings. With regards to secondary data, the researcher has been intensively reviewed and analyzed environmental policies and other existing relevant knowledge of related researches, articles, publications, non-governmental analysis reports, strategies from relevant local to global sources.

3.3. Sampling Technique and Size

3.3.1. Sampling Technique

This study has employed purposive sampling method. As Bryman (2012) noted, most sampling in qualitative research entails purposive sampling of some kind which the sampling is conducted with reference to the goals of the research, so that units of analysis are selected in terms of criteria that will allow the research questions to be answered.

Moreover, the researcher used two sampling techniques of purposive sampling, the initial research participants from A.A City Government Environmental Protection Green Development Commission were selected based on expert sampling techniques. The researcher applied his expertise knowledge and identified samples of respondents with the evident experience and experience as public relation professionals or as the experts of environmental protection he thinks meet the research objectives and problem of the research. Belay & Abdinasir (2015) mentioned, expert sampling involves assembling of a sample of persons with known of demonstrable experience and expertise in some area. Two reasons you do the expert sampling. First, it is the best way to elicit the views of persons who have specific expertise. Second, for selection of key informants of interviewees, it is required to generate reliable and valid data from the knowledgeable and appropriate sources about the issue under investigation.

However, snowballing sampling technique of purposive sampling were also used in the study as a result of initial interviewees from the A.A City Government Environmental Protection Green Development Commission, such as senior public relation professionals and environmental experts identified other candidates for inclusion in the research from other State and Non state key actors.

3.3.2. Sample size

Sample sizes in qualitative research should not be so small as to make it difficult to achieve data saturation, theoretical saturation, or informational redundancy. At the same time, the sample should not be so large that it is difficult to undertake a deep, case- oriented analysis (Onwuegbuzie and Collins 2007). Similarly, Saunders, Lewis and Thornhill (2009) explain about sample size, conducting additional interviews, until data saturation is reached: in other words until the additional data collected provides few, if any, new insights.

However, the researcher considered also Cresswell (2007) view regarding qualitative sample size, “you should expect to undertake between 25 and 30 interviews.” The researcher considered the two basic concepts, theoretical saturation and representativeness. What sample size will reach redundancy and how many samples are needed to represent varieties of people are the main questions to be considered to determine the sample size.

This research has been conducted with qualitative approach, and the qualitative research by its own nature is not to make generalization instead its aim is to get quality information and in-depth understanding regarding the subject matter which is under investigation. For this, the binding rule is theoretical saturation. When the researcher stops receiving new ideas from the respondents, it is possible to say the data reaches on its saturation point.

Therefore, the researcher had been depended on for sample size determination on data saturation in which continuing to interview the participants until it reach informational redundancy or the collected data provided few new insights on the research questions.

Then, the interviewees during the main research were contacted accordingly, based on the research questions to be answered and the objective of the study. Twenty five interviewees have been selected based on their role as communication professional (as public relation personnel (PR) in their organization and the direct link they have in the communication practice of topic under study. The interviewees are listed on institutional role and presented in the table indicated as below. The table below illustrates the list of in-depth interviewees.

I. Environmental Protection Institution				
	Institutional Objectives	Name of Institution of which the Interviewees selected	The Interviewees Role in the Organization	No of Interviewees
1	Environmental Protection Activities and Promoting, Creating Pro Environmental Behavior	A.A City Government Environmental Protection Green Development Commission (CGEPDC)	Communication and Public Relation Director	1
			Senior environmental experts	2
			Senior and Junior Public Relation Personnel (3 and 2), respectively.	5
II. State and Non-State Key Actors for Environmental Communication Effectiveness				
	Type of Organizational Partnership to the Commission	Other Gov't & Non gov't Organizations the Interviewees Selected	The Interviewees Role in the Organization	No of Interviewees
4	Environmental Protection Activities and Promoting Pro Environmental Behavior	Ethiopian Environment, Forest and Climate change Commission (EFCCC)	A Communication & Public Relation Director; 2 Senior Environmental Expert; (2 Senior and 1 Junior) and Communication personnel.	6
5		Addis Ababa Solid Waste Management Agency	Senior Public Relation Officers	2
6		Science and Innovation	1 Senior and 1 Junior Public Relation officers	2
7	Environmental Protection Activities and Promoting Environmental Behavior	Forum for Environment	Project coordinator	1
8		SNV (Netherlands)	Project coordinator	2
9	Local eco Innovation	Patented Innovators	Local Environmental Friendly Innovators	4
Total number of interviewees				25

Table 1. Interviewees' Description and the Institutional Functioning Type

3.4. Instruments of Data Collection

Qualitative researchers typically gather multiple forms of data, such as interviews, observations, and documents, rather than rely on a single data source (Cresswell, 2009). The data collection methods are used to collect data which give answers for the research questions in align with the objective and problem of the study, as long as the type of data used in the study produce richer and complete result both primary and

secondary data are collected. The data collection method for primary data in this study was through in-depth interview and field observation. Secondary data were reviewed and analyzed; Ethiopian environmental policy, researches, articles, journals and publications, non-governmental analysis report, proclamations, strategies, print and mass medias, etc. from relevant local and global sources.

3.4.1. In-depth Interview

Robson (2002) describes, in an exploratory study, in-depth interviews can be very helpful to ‘find out what is happening [and] to seek new insights. Semi-structured interviews may also be used in relation to an exploratory study. As it mentioned in the first chapter, on which no or little research has been done in the past on the topic of this research and little prior literature from which to draw leads, the researcher had to explore the theme of the research, thus exploratory research method used.

And this research is purely qualitative and exploratory study, it used semi structured and unstructured (in-depth) interviewing methods to ‘probe’ answers, where the researcher wants his interviewees to explain, or build on, their responses. Therefore, due to the nature of the study and with the aim of accomplishing a deeper understanding from knowledgeable informants, an in-depth interview was used to collect primary data. Faceto face interview had been the common method of interview for this study, The researcher used semi and unstructured interview with the same interviewee one interview: ‘one section of an interview guide asked semi structured and the other focused on unstructured. This is noted by Bryman, (2012,p.405) “there is a growing tendency for semi-structured and unstructured interviewing to be referred to collectively as in-depth interviews or as qualitative interviews”.

During the interviews, the researcher has prepared the interview guide with a list of questions or fairly specific topics to be covered, but this guides had not prevented the interviewee in how to reply. Questions may not follow on exactly in the way outlined on the guide. Questions that are not included in the guide may be asked as the interviewer picks up on things said by interviewees.

3.4.2. Field Observation

Field observations are those in which the researcher takes records on the phenomenon and activities of people at the research site. The use of field observation along with interview and analysis of existing documents suggests that the topic was examined from several different perspectives, which helps build confidence in the findings. Observations are useful to researchers who wish to understand more about the situation under study (Dominick & Wimmer, 2012). The researcher used observation method in similar notion with the two scholars mentioned, to understand more about the interviewees' responses by field observation and also to assure the trustworthiness of their response related to the communication practice in their organization. The researcher used observation mainly (at initial and final phase of the research) while at the beginning, the field observation helps the researcher to define basic background information necessary to frame a problem and research question, and to support his statement about the research problem. However at final phase after most of the respondents gave their interview.

Observation Guide was developed to help the researcher to collect data in a more organized fashion. Thus, the guide prepared in the checklists format by listing activities which the researcher is going to observe for data collection. The researcher takes records of relevant events and issues (in relation to the research question) at different sites and time using the observation checklist based on prior research questions that the researcher wants to answer.

3.4.3. Document Review

For triangulation of data the researcher has reviewed documents from the secondary sources of data. These documents were Ethiopian environmental proclamations and policies, researches articles, publications, non-governmental analysis report, strategies, etc. from relevant local and global sources. In multiple occasions, while visiting each institutions and organizations for conducting interview, primary and secondary documents (reports, memos, strategic annual plans, and journals) were collected. In addition multiple websites, published books, international journals, newspapers; foreign TV documentaries were used as source of secondary.

3.5. Reliability and Validity

Reliability and validity are conceptualized as **trustworthiness**, rigor and quality in qualitative paradigm. Lincoln and Guba argue that ensuring credibility is one of most important factors in establishing trustworthiness in qualitative research.

3.5.1. Validity

Validity is one of the strengths of qualitative research and it is based on determining whether the findings are accurate from the standpoint of the researcher, the participant or the readers of research report. Terms abound in the qualitative literature that speak to this idea, such as **trustworthiness, authenticity, and credibility** (Creswell & Miller, 2000). They identify and mention **validity strategies** which a researcher advised to incorporate to check the accuracy of the findings. These are (triangulation, member checking, clarify the bias, use of external auditor, peer debriefing, present negative or discrepant information) the listed strategies. On the contrary Maykut and Morehouse (1994) rather than emphasizing reliability and validity, they directly address the trustworthiness of a qualitative research project. They summarize multiple factors that help build credibility: and mentioned four strategies (i.e. Multiple methods of data collection, Member checks, Audit trail, and Research team) that help build credibility of the research project.

Therefore, based on the aforementioned, this study similarly has identified and incorporated **five strategies** which brought and **improved the trustworthiness of the study**, and discussed each of the five here below as follows.

The first one is, triangulate different data sources of information by examining evidence from the different sources and using it to build a coherent justification for themes. Then triangulation is defined to be “a validity procedure where researchers search for convergence among multiple and different sources of information to form themes or categories in a study” (Creswell & Miller, 2000, p. 126). In this regard, the study employed two forms of triangulation the first one from the multiplicity of method of data collection aspect, and second in the use of a wide range or variety of informants. Similarly, in the study in-depth interview, field observation and document analysis were used as multiple methods of data collection and sources of data; which this also referred as across method triangulation by (Casy and Murphy, 2009) . In addition, as it is indicated in the above (Table 1), wide range of interviewees were participated from other

different key State and Non State actors (for instance from Ethiopian Environment, Forest and Climate change Commission (EFCCC), Addis Ababa Solid Waste Management Agency, Science and Innovation SNV (Netherlands) Forum for Environment). Here the individual interviewee's viewpoints and responses from A.A City Government Environmental Protection Green Commission can be verified against the responses from the aforementioned mentioned interviewees.

Use of member checking is the second strategy which has been employed in the study. As Lincoln & Guba, (2000) also mentioned use member checking as one of the strategy to enhance the trustworthiness of the study by helping to determine the accuracy of the findings through taking the specific descriptions or themes or finding back to participants and assure them that it is stated as they intend to express it. Yet, this does not mean taking back the raw transcripts to check for accuracy; instead, the researcher takes back parts of the polished product, such as the themes and conclusion. Therefore, similarly to this procedure, in the study it has been conducted a follow-up interview with the interviewees from A.A City Government Environmental Protection Green Commission, meeting each individual interviewees a more than **three times** and providing an opportunity for the researcher to get more clarification for the preceding interviews. Then let the participants also to comment on the themes of their response, findings and conclusion. **Third, clarify the bias the researcher** brings to the study. This self-reflection creates an open and honest narrative that will resonate well with readers. On this aspect, the researcher explicitly mentioned his biasedness as the limitation of the research in chapter one. However, it is also affirmed that his biasedness has justified and minimized through the multiple strategies followed to improve the trustworthiness of the study. **Use of peer debriefing mentioned as fourth strategy** to enhance the trustworthiness of the study. Aforementioned in the research, two other former Addis Ababa University's graduated communication students have been already involved in the codifying the transcription of the interviewees, and two of them again were participated as reviewer, and question the methods used in the study, and data interpretations of the researcher. **The fifth strategy, use an external auditor/audit trail** to review the entire research has been the last strategy used by the researcher. The role is similar to that of a fiscal auditor, and specific questions exist that auditors might ask (Lincoln & Guba, 1985). Therefore, an instructor from Addis Ababa University, College of Business and Economics, School of Commerce, **Beza Libeyesus Nisran**

(Ph.D.) was willing to audit the research mainly focusing her assessment on the reliability of codifying the transcription of the interviews, the relationship between the research question and data, the data interpretation for conclusion. The auditor was not familiar with the researcher or the project and is intended to provide an objective assessment of the project throughout the process of research.

3.5.2. Reliability

In addition, the reliability of this study has been maintained through its consistent methodological approach throughout the study. The above **5 (five)** aforementioned strategies and as to align to also the Gibbs, (2007) reliability procedures which he states **reliability procedures** as follows:

- Check transcripts to make sure that they do not contain obvious mistakes made during transcription.
- Cross-check codes developed by different researchers by comparing results that are independently derived.
- For team research, coordinate the communication among the coders by regular documented meetings and by sharing the analysis.
- Make sure that there is not a drift in the definition of codes, a shift in the meaning of the codes during the process of coding.

Therefore, equivalently the study are also maintained its reliability, following strictly well formulated data analysis model depicted in figure 2, in section under the method of data analysis. Moreover, in order to illustrate this and the reliability procedures mentioned above, here described as follows:

1. Regarding making the transcripts free from mistakes during interview transcription.

During the study all the interview transcription has been done by the experienced transcriber and then after rechecked by the researcher against the major points which has been taken with notes during the interview, to make sure that they do not contain obvious mistakes made during transcription.

2. Reliability by cross checking codes developed by the different coders

In the data analysis of data i.e. the interview data the researcher and research assistants are cross checked and the most related themes and each of **the most related theme** have been taken for considerations.

3. Reliability through team research, coordinate the communication among the coders by regular documented meetings and by sharing the analysis.

The researcher along with the other two coders (research assistants) as the team coordinate the communication by regular meeting of discussion for sharing the views and looked for possible ways of merging from the total list of 18 themes or grouping of themes that related to each other in relation to the predetermined research questions and the new theme emerged. Thus, major 6(six) themes obtained by joining together several coding in a meaning full way.

3.6. Data Collection Procedure and Method of Analysis

3.6.1. Procedure of Data Collection

3.6.1.1. In Depth Interview Data Collection Procedure

The researcher had been established a rapport with the initial respondents (commission's interviewees) before conducting the main study to have their commitment and persistency throughout the interview process. The adjacent proximity of the researcher's office with that of the participants' office (the commission) as well as the previous close work related relationship between these two offices had, significantly helps to have already established friendly relationship (rapport) of the researcher with most of key informants and high level managers of the commission. Thus, this helps to get easily their willingness and full cooperation as well as the full consent of the commission to conduct the study (including in-depth interviews with the selected interviewees). This pre-established relationship between the researcher and research participants has provide open accessibility (i.e. frequent meeting for the follow-up interview).

At the very initial stage of the meeting with few of the candidates, the researcher had got a chance to be introduced to others and made aware of further areas of other key stakeholders that the researcher would benefit from studying them. Similar practices of establishing friendliness were duplicated with the other proposed interviewees from other organizations to create the interest and get the consent of their respective organization's to conduct the research. Accordingly, eight interviewees have been

selected based on their role as communication professional in their organization and the direct link they have in the communication practice of topic under study: from those, a Communication and Public Relation Director, two senior environmental experts, three senior and two junior public relation officers selected. The data collection was followed by preparing the interview guide based on research objectives and research questions. An interview guide for in-depth interview is not a list of questions rather it is a list of issues, topics for discussion points to generate data through an in-depth interview. Moreover, the guide simply reminds and shows the interviewer the scope of the area to be cover by the interview. Therefore, the questions which were expected to be answered by the participants were relied on the research questions and thus the researcher used an interview guide which helped to keep the discussion relevant to the issue under study. And to make sure that it was followed consistently through all in-depth interviews. The interview guide assisted the researcher to follow the sequences of the questions for all in depth interview. But it doesn't mean that the researcher was restricted to raise follow up questions. In order to get relevant information and clarifications, follow up questions which were not on the list of interview guide were raised. First this helped for both to have more wide and different perspectives about same questions, second it helped to cross check the reliability of interviewers' previous given response with other interviewees, and this has significance to improve the research finding credibility. The original plan was to interview only from A.A City Government Environmental Protection Green Development Commission and with the innovators, but the first contacted participants from the commission **referred some of** the other key State and Non State actors, and these in turn referred the rest, which the researcher found out without these referred prospective interviewees, the research would have doubtful base. Once this was done, each participant telephoned to set an appointment for interview. However, it was difficult to conduct the interview on one pre-planned schedule due to some of the interviewees frequently rescheduled the appointment. When an interview was completed, the notes immediately compiled and sent them to each interviewee's and in person for review and revision. The revised notes that the researcher received often brought up new points or clarified from previously ambiguous statements. However, the entire interviews had been conducted, and responses were properly taken and organized and analyzed later.

During all the interviews except with the innovators who have shown unwillingness to be tape recorded, the researcher highly relied on audio taping though during interviews notes were also taken. The reason to rely on audio recording while interviewing was for alleviating missing key information because of information overload during discussion and deep interview. On the average one interviewee met two times spending on average an hour per interview. Finally, the interviews were thematically analyzed and narrated.

3.6.1.2. Field Observation Data Collection Procedure

Before the field observation conducted, Observation Guide was developed to help the researcher to collect data in a more organized fashion. Thus, the guide prepared in the checklists format by listing activities which the researcher is going to observe for data collection. The researcher selected its observation activity particularly at the beginning and end of the research project selecting purposely different sites of Addis Ababa. However, there were two types of observation conducted separately, the first one which was conducted at the beginning of the research to observe **randomly different areas or sites of open land filled** in the Addis Ababa where plastics bags and bottles were discarded largely. This initial observation helps the researcher to define basic background information necessary to frame a problem and research question, and to support his statement about the research problem. Likewise, **the second observational activity has** been followed after (most interviews were undertaken) to observe particularly the communication channels and tools used by the commission, mainly in mass medias (TV and Radios), billboards, posters, brochures, social medias. The observation guide line at these instances has been strictly employed. The aim of the this field observation is to understand more about the interviewees' responses by conducting and also to assure the trustworthiness of the interviewees' response related to the communication practice in their organization. During the observation short field notes has been used to give a description for the photos taken using smart phone camera.

3.6.2. Methods of Data Analysis

Thematic analysis is one of the most common forms of analysis in qualitative research. It helps in identifying, analyzing and reporting patterns (themes) within data. It minimally organizes and describes your data set in detail. However, frequently it goes further than this, and interprets various aspects of the research topic (Braun, V. and Clarke, V. 2006).

The data gathered from the interviewees are analyzed aligning with the research questions along with the emerged theme, thus thematic analysis is the base for the analysis in the research. Thematic analysis is considered to be the foundational approach to qualitative data analysis (Braun & Clarke, 2006; Williamson et al., 2013). Generally, data analysis in qualitative research has involved various steps which are interrelated and interactive activities. However, the main and detail analysis was began with the coding process.

The figure below suggests a linear, hierarchical approach building from the bottom to the top, but as more interactive in practice; the various stages are interrelated. These levels are emphasized in the following steps;

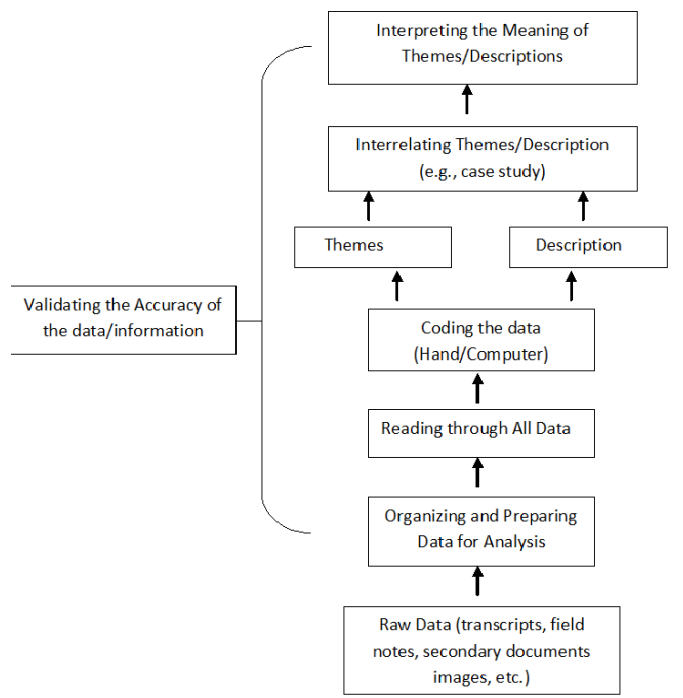


Figure 2. Data Analysis in Qualitative Research, (Creswell, 2009)

In the data analysis, the researcher had been assisted with two former graduated students of master of communication who showed their willingness to assist the researcher particularly in codifying the interviews transcription. They are selected purposely on their familiarity and experience they have particularly to the research field of communication. The two coders along with the researcher had agreed to a follow a

common coding procedure (which mentioned below in detail) to code for main theme of the interviews transcription; then cross-checked their themes of the transcription for most related or similar ones. The researcher has taken the most related of the three as main themes; this use of multiple coders with agreed coding procedure and the cross checking of themes brought consistency while in the coding process .Similarly, Miles and Huberman (1994), mentioned coding with agreed coding process significantly contributes to the reliability of the study, the consistency of the coding process has major significance and most of the time for good qualitative reliability.

Bogdan and Bilden (1992) mentioned different types of codes that the coder/s looks for in a qualitative database. They indicated the researcher should (a) develop codes only on the basis of the emerging information collected from participants, or (b) use predetermined codes and then fit the data to them, or (c) use some combination of predetermined and emerging codes.

Thus, in the study the third coding type is followed since the research questions considered as predetermined factor which led the coding of the themes, and new opinion and views were also coded as emerging or new theme. The data analysis process which were followed in this study are presented and discussed here below as follows, considering each of the six steps illustrated by Creswell.

Step 1. All data gathered through interviews, observation and documents were organized and prepared for the analysis. This involves transcribing each participant's interviews and typing up field notes. Sorting and arranging the data into different types depending on the sources of information .Thus, data from the interviews, from the observation and from existing documents were sorted out accordingly. All the interview transcription has been done by the experienced transcriber and then rechecked by the researcher against the major points which has been taken with notes during the interview, to make sure that they do not contain obvious mistakes made during transcription.

Step 2. Read through all the data. The coders (three of inter coders) had thoroughly read the data. Thus, sense of familiarization of had been gotten with all the in-depth interview transcriptions including data from field observation and documents. This let the coders

also to obtain a general sense of the information and to reflect on its overall meaning of the data.

Step 3. Begin detailed analysis with a coding process. Coding is the process of organizing the material into chunks or segments of text before bringing meaning to information (Rossman & Rallis, 1998,). It involves taking text data or pictures gathered during data collection, segmenting sentences (or paragraphs) or images into categories, and labeling those categories with a term, often a term based in the actual language of the participants.

Before proceeding to the next step of data analysis, here below the coding procedures which were followed by the researcher and his assistances in the coding processes of the study presented and discussed as follows considering detailed guidance for the coding process. Tesch (1990, pp. 142-145) provides the following useful steps in the analysis process:

The primary procedures in the coding process was getting through all the data collected and have a sense of understanding.

Second, relating the transcription in reference to the research question and the emerging new insights or views, each has jotted or has taken notes which are intended to capture the essence of each sentence of the text, It involves taking text data or pictures gathered during data collection, segmenting sentences (or paragraphs) or images into categories, and labeling those categories with a symbols. Each coder has given list of topics (here along with the topics, **the initial coding was given as well**) to the segment of the entire transcription, and grouping similar topics or codes together and then categorized as themes.

Third, **the themes were coded again** and most appropriate descriptions were given for each theme, and a total of 18 themes were derived of the three coders from the entire interview transcription and data from observation.

Fourth, **cross-check codes developed by different coders (inter coders) by comparing** results that are independently derived. Cross checking has begun for the most related themes and each most related theme have been taken for considerations.

Fifth, the researcher along with the other coders coordinate the communication by regular meeting of discussion for sharing the views and looked for possible ways of merging from the total list of 18 themes or grouping of themes that related to each other in relation to the predetermined research questions and the new theme emerged. Thus, major 6(six) themes obtained by joining together several coding in a meaning full way.

Sixth, review of themes would be the last procedure. The researcher had checked either the themes are refined or not. On this case the six themes were categorized in relation to research questions, such as the strategic communication channels employed by the commission, the coordination with other key actors to bring behavioral change towards using green products, the reason the communication is not practiced strategically, the challenges encountered by the commission.

Step 4. Incorporate the themes as finding of the study .In this specific step of the data analysis, the coders has already generated codes for the categories or themes. These themes have appeared as major findings in studies and were included in the discussion sections of studies. They have displayed multiple perspectives from individuals and be supported by diverse quotations and specific evidence.

Step 5. Decide how the themes will be represented in the analysis (this is similar to performing preliminary analysis). The narrative passages were used to convey the findings of the analysis. This was a discussion that mentions a response of interviews, the detailed discussion of derived or generated themes (complete with subthemes, specific illustrations, multiple perspectives from individuals, and quotations) or a discussion with interconnecting themes.

Step 6. A final step in data analysis involves discussing the finding of the research obtained from (field observation, in depth interview and documents review),which include an interpretation of the data. The meaning derivation or the interpretation of the finding has been done in relation to the literature or theories reviewed in chapter 2. Thus, researcher used a theoretical lens which he could form an interpretations.

In general ,all the interviews were tape recorded (and transcribed by professional transcripator and recheck by the researcher against the major points which has been taken with notes during the interview), however those who are innovators who are not willing to be recorded, note taking was used as sole data recording; and thus notes were

taken. The written data was translated from Amharic to English and then analyzed by categorizing and codifying similar responses together which give meaning. The data has presented in narrative form.

3.8. Ethical Considerations

3.8.1 Informed consent

The researcher applied oral an informed consent to solicit the willingness of the individual to participate on this research. The participants were given information on the purpose of the study, the time it takes, the procedures to be followed, and benefits before starting the research. It is only after getting an informed consent that the participants will be required to move to the next steps. The potential participant will also be informed that he/she can refuse to answer any question and that he/she can quit the interview at any point. If the participant has any questions, the researcher will be required to respond adequately.

3.8.2 Confidentiality

The researcher assured information that participants provides during the study will be kept confidential. The raw data set and recorded interviews shall not be used for any other purpose than the intended purposes.

CHAPTER FOUR

4. Presentation and Analysis of Data

4.1. Introduction

The aim of this research is to explore regarding how effective the commission's was while strategically practicing the communication and the channels employed to achieve the intended goal of the commission with the other key State and Non state stakeholders. That is how strategically the communication practiced by the institutions as the key to effectiveness while communicating the public of Addis Ababa to bring the intended outcome. Therefore, data from in depth interview, field observation and documents review are presented after **organized and prepared** for further thematic analysis each in detail in relation to research questions .The analysis has been undertaken in accordance with **data analysis process depicted in figure 2 indicated chapters 3.**

4.2. Data presentation and analysis from in-depth interviewees

For the most part, this section of the study presents the interview data at full length from the interviewees responses mainly **segmented in relation to** the essence of each sentence of the text by providing comparison of the responses of the key respondents. Responses from the interviewees are **organized and prepared after** segmenting sentences (or paragraphs) or images into categories .This is to codify each segments into **major themes** (in relation to research questions). Therefore, the interviewees' responses are segmented as follows:

1) The communication plan of the commission (major considerations taken while designing the plan and its ultimate objectives)

Regarding whether the institution has a clear written document of communication plan towards local eco innovation, the researcher could not find out a formal document prepared with clear procedures and action plan that can serve as a guideline for a communication of eco innovation. According to the communication director currently the institution is designing a communication plan particularly how to promote local eco innovators to the public of Addis Ababa. Even begins with defining what local eco innovation means for the institution, and how it could affect the entire communication practice of the office. Nevertheless, the commission despite the fact that it claims it has a communication plan; first the document they presented (for the researcher) does not fully examine the significance of all communication channels properly, and it missed to incorporate the important communication channels particularly with regard to promote the benefit of eco innovations to Addis Ababa public. In addition, the **communication plan**, as the communication director and most senior communication experts of the commission experts mentioned, it rather has **a general communication guidelines not the detail one**. The communication director admits after different voices and concern raised up (including from media and other environmental concern high profile public figures) of other organizations, the institution is starting to give the attention and begins to review its communication plan as well as their practice develop which also incorporates local eco innovators as part of it.

According to most respondents of the commission which they stressed about the communication which has been undertaken so far is not sufficient and could not bring so much results as intended (planned). This is towards the attitudinal and behavioral change to the public of Addis Ababa. Considering this gap, the public relation director indicated to review and redesign the strategic communication plan which give **emphasis multiple and interactive channels** particularly social media. Therefore, to bring the public strong attention particularly for the improvement of public participation towards the commission's message as one voice with other stakeholders mainly with the medias.

2) Coordination to send message with other key actors (environmental organization including non-governmental and medias)

Nonetheless, on the other issue of how the commission coordinates its communication with other significant actors towards delivering the message as **one voice**. On this regard, many of the senior public relation officers agree there is improvement, but it is not that much encouraging because the communication objective is to make the public of Addis Ababa pro environmentalist which this need strong partnership and coordination with other major stakeholders mainly with other environment concern government organs, medias and donors.

And this view also shared by the two program coordinators from SNV and Forum for Africa, as both similarly stated they (the commission) are not proactive, and the SNV interviewee added on the point and said:

Multiple times, at our own expense and with our organization effort, we organized many meetings to create common communication platform and invited them (Including the commission) and others to discuss about the issue.

On this regard the communication and public relation director from Ethiopian Environment Forest and Climate Change has similar response, and the commission has a communication gap and was less effective to coordinate others to educate the public and create awareness and make Addis Ababa publics as environmentalist.

The director continuing his concern and said:

Though both of us are government environmental protection organs established for same goal ,and almost have similar duties and responsibilities except the scope, there no strategic communication which integrate us. They are rarely reachable when we want them to work together. Without exaggeration we get the chance to meet each other when we are attending some other workshop or some meetings. In our side we tried our best. Surprisingly sometimes they come to us out of the blue and insisted us to do some activitywithout plan....without advance discussion and preparation.

Coordination with key state and non-state actors for instance ,NGOs, Governmental organs , medias and others **is not** strategically established to achieve the intended goal.

Furthermore, the director agree on the lack of coordination of the communication practice, since they are not as such employ using various channels in organized way (particularly and the plan is narrowly defined at departmental level confined its function within limited scope as a result the institutions could not be effective in communication .In addition the skill among the institution's communication officers also anther gap , since most of them are initially technical experts on environmental field, not from public relation background . Thus before taking further actions regarding the communication aspect, they consider all these gaps and even included in their newly developed communication plan, a training programs that each personnel has to take trainings to develop their communication skill as well. As a result communication effectiveness is be achieved without a doubt, as a director stressed. Most of the respondents agree that even some of them expressed their regret on the minimal effort which has been done to the local environmental innovators. They could not even provide them any support at least with technical support let alone to promote their innovations to the public. And one of the senior communication public relation officers said:

I strongly believed we could do more to these individuals at least promoting their work or creating an opportunity to network them with various private businesses entities for instance with the banks and manufacturing companies. However, our effort in this regard is very problematic.

And the other respondents stressing the previous remark made by his colleague he further added:

We, all know very well how great they could benefit the environment, yet wedo not do nothing for them!

However, they all agree, previously there was no well-designed communication plan but currently, the commission by giving the highest priority for the communication strategic plan, it has considered and **incorporated major elements of communication to achieve its goal**. The communication plan considering mainly the well-organized utilization of channels including through the coordination with other key actors mainly medias.

And at this juncture the researcher reviewed available documents as a source of secondary data, to get more understanding the overall communication practice of the commission and to triangulate the response of the interviewee as well.

Stressing on the urgency of the issue by the director, the current focus is to develop strategic communication plan and implement it, to create awareness and bring the desired behavior within short time among the wider public of Addis Ababa towards the use of environmentally friendly products to substitute plastics.

3) Communication channels employed by the commission (major considerations taken while employing the channels and their ultimate objectives)

On the other but related issue of interviews with the senior public relation officers, regarding the channels employed by the commission, all of them with the same view, which the commission is using different channels considering different factors such as the message content, target audience and other important factors, and one of the interviewee said:

We almost used all the communication channels to reach different people across the city and even at national level but we usually use common tools particularly TV, Newspapers and websites currently social media like face book.

Besides, the senior public relation officers, the director replied also with similar notion and said:

Previously no doubt we had major ineffectiveness using the channels so as our whole communication practice. In our current communication strategic plan, it has been given much emphasis on the channels of communication that we are going to employ, it is much interactive or two-way, and; partnership with selected specific Medias like TVs and newspapers is also our top priority. We strongly believe this brings communication effectiveness.

4) Communication gap towards lack of awareness

Comments regarding **the commission's communication gap** have dealt at length the gap of the commission and most of the respondents have agreed due to awareness there is weak collaboration between the commission and other key actors of environmental concern (non-governmental organizations and media). Furthermore, they also have given their strong remark regarding the ordinary residents of Addis Ababa who lack **even giving attention** for health and environmental risk caused by plastic bottles and bags pollution. This also has been observed among the public when they are ignoring to see the benefit of local eco innovation. **It make it even much worse challenging for the commission communication effort, when this poor attitude was not observed only among the ordinary citizens however with many high profile government**

officials (particularly policy makers and media)

Nevertheless, many of respondents agreed on the complexity and multifaceted nature of the challenges. Yet again they all expressed their strong concern about the poor awareness of the city's residents towards environmental issues. The city's environmental problem is not deforestation or pollution but its source of which is the low awareness and attitude the people have towards their environment. the residents excessive usage of hazardous products mainly plastic bags and bottles.

The director **from Ethiopian Environment, Forest and Climate change Commission** also added comparable view on the issue to elaborate more and expressed his observation:

*“...likewise, the two main challenges; **first the poor public awareness** (including the policy makers, media, business communities and high profile people) towards environment, **second lack of public relation professionalism so that the public have not been communicated very well.** Thus, all in all there is **lack of awareness among the public including influential people toward using environmentally friendly products besides commitment problem mainly by the policy implementers**”.*

The senior environmental experts from the commissions have commented the major challenges that the city of Addis Ababa is facing, their focus of identifying main problem is parallel as it has been mentioned above,.

Similarly, the director stressed in creating the educating of the public through different media outlets particularly state mass medias to reduce such **communication gap**.

Every governmental bodies working on the same issue, should coordinate and work together instead of individual organizational effort which does not bring any concrete result at the end. Regarding the city's environmental protection commission, the director

stated there no strategic communication which integrate between the two, though they have almost similar duty and responsibility except the scope. The communication personnel in this regard has major role to facilitate and create inter connection among environmental organizations and other key responsible stakeholders for joint cooperation. The interview with the director also indicated that there is gap because of some limitation on skill, that's why such collaboration among different government bodies including with the city's Environmental Protection Commission had not sufficiently achieved. The director continuing his remark the two have to able formulate a common or interdependent communication strategic plan, which the two environmental commissions and other stakeholders should attain.

5) Comment regarding communication gap towards lack of skilled communication professionals

Opinion regarding the communication skill among the public relation officers, and local innovators and the public behavior all the senior environmental experts and public relation officers accepted there is skill gap on how to practice environmental

communication professionally particularly to bring coordinated effort with the other key partners; it needs resource to train them and professional practices, as they claimed.

6) Comment regarding communicating eco innovators through campaigning

As the senior environmental experts explained, there is no mechanism or system established to link the local innovation as part of the solution to substitute plastics, which the city is hugely suffering from it. Similar notion was also forwarded by senior public relation communicators, the environmental policy by itself has a limitation since it does not state the contribution of indigenous eco innovation as substitute for plastics and thus the support should be given for it.

However, the two environmental commissions and Innovation and Technology have been providing them with some technical advise. The innovators have expressed their disappointment from the feedback they get from most of the financiers and made their remark towards the poor attitudes and awareness existed to the benefit of local green innovation. They direct their strongest blame on A.A City Government Environmental Protection Green Development Commission which do not do almost nothing to promote their innovation including the benefit for environmental protection. All the respondents' have similar comment towards the two NGOs', the SNV and

Forum for Environment ,in which these two environmental concern organizations have shown better willingness to support them financially and technically, and extend their support to them. Thus, the interviewees are given their regret, A.A City Government Environmental Protection Green Development Commission and Ethiopian Environment, Forest and Climate Change Commission do not provide them the minimum required financial and technical support. Continuing their remark, their innovation benefits not only specific public but benefits all the citizens of the entire nations by protecting and conserving the environment. The interviewees from Addis Ababa Solid Waste Management Agency and the two NGOs, Forum for Environment and SNV indicated different from the policy gap rather they believe the communication gap created the public to have lack of awareness regarding environmental friendly products, they were not communicated well. The products need to be promoted well, the people have to know about the benefit of these products. Since people were not strategically communicated by the responsible environmental protection body, they were not pro environmental behavior.

Most of the interviewees other than the commission's respondents have been stressed the poor awareness among the public including the business community, media and high profile people and other. Therefore, they boldly articulate about the commission's communication gap and they suggested that, the commission should improve its communication gap and bring attitudinal and behavioral change among the with in short period. This is possible if the commission use multiple channels and coordinates its effort with other key actors.

C. Data from Document Review

In addition to data from in-depth interview and from field observation which have been analyzed so far, existing documents (both primary and secondary) have been also reviewed and analyzed. This helps to triangulate of particular issue that is the research problem from different angles and sources, and improves the accuracy of the study and thus contributes for the trustworthiness of the study as a whole. The aim of study focused on the communication practice of City Government Environmental Protection Commission, and thus various documents were collected from this institution ,among these documents which had been taken for consideration two quarter reports (3rd and 4th quarter reports 2017/18), annual report (2017/18), Annual Strategic Plan (2019/20),as well as two environmental policies (Environmental Pollution Control Proclamation No.300/2002, and

Solid Waste Management Proclamation No. 513/2013).The aforementioned two environmental protection offices are started coordinating with other environmental concern key actors including the medias and NGOs’, they forward this issue to the Ministerial office to be critically reviewed for provision of motivational incentives to local eco innovators.

Thus, accordingly the researcher reviewed documents of commission’s strategic plan particularly what type of channels, why and how the channels used are presented as follows:

“...in order to improve the effect of message, the way of delivery of message is essential, channels mass medias, print (such as TV, radios, newspapers), meeting and websites are required to use during the course of communication with the public. However, the determination of channels evaluated on the nature of the audience, thus the communication plan main objective is to educate the public which worth for the public health and environmental protection then bring environmental behavior among the public with in a short defined period of time”.

(the excerpt from the Communication Strategic Planning, 2019).

Furthermore, it could able to find and **reviewed documents of the communication plan** of the commission regarding the ultimate objective of the whole communication practice which is stated as follows:

The commission has a duty to deliver messages which worth for the public health and environmental protection, it is required to educate the public and then bring behavioral change with in a defined period time accordingly.

(the excerpt from the Communication Strategic Planning, 2019).

D. Data from Field Observation

In the study, two observations have been carried out separately in this study .The first oneat initial stage of the study and undertaken to observe randomly different areas or sites of open land filled in the Addis Ababa where plastics bags and bottles were discarded largely. This observation also helps to define basic background information necessary to frame a problem and research question, and to support his statement about the research problem. **The second observation was at the end,** after most interviews were conducted. During the second observation the data were collected

based on the Observation Guideline which mainly focuses on **the usage frequency** of communication tools and medias.

Thus, based on the observation of the commission's broadcasting media usage of state owned TV channels and Radio stations , the commission **has never used** these mediumsto communicate or to transmit its message to any of the audience .That is the commission **has not prepared any programs or press releases which has intended to as newsworthy or any other forms to reach to specific audience or the public in general (particularly with regard to local eco innovation)**.Similarly, the print medias ;newspapers and magazines (and only those of state owned) **had not used** by the commission to communicate the public or specific group of audience for message transmission. With regard to observation of the promotional materials (flyers, leaflet and brochures), the commission has prepared and used two types of brochures and similarly with flyers and leaflets **within a year**. In addition, observing social medias and web site usage by the commission , though they have been used , the content of were not updated.

However, public meeting which includes seminars, workshops, panel discussion and press conferences; have been used **frequently**. According to the Public relation Director of the commission **before** the COVID 19, on average **5(five) Seminars and workshops have been held per month**. These are the **most used tool among** all the communication medium of communication.

The public signage (i.e. billboards and posters), based on the observation bill board was the **least utilized** and only two billboards were posted in two locations of Addis Ababa.

a. Discussion

This section of the study discusses **findings from the interviewees' responses** qualitatively, field observation and various documents in accordance with the research questions explicated in chapter one and on the literature reviewed and the conceptual framework set out in chapter two. Its primary **focus on the findings obtained from the three sources of data regarding how effective the commission was while strategically practicing the communication and the channels employed** to achieve the intended goal of the commission with the other key State and Non state stakeholders.

Therefore data from in depth interview, field observation and documents review are thematically analyzed each in detail **in relation to research questions** and presented in the following **thematic areas**:

1. communication practice of the commission towards having a safe and friendly environment.
2. the communication channels employed by commission and their effectiveness towards using environmentally friendly products.
3. communication practice towards local eco innovation to the public of Addis Ababa.
4. communications barriers encountered by the commission while communicating the public.
5. environmental campaign for communication of local eco innovators.(as emerged theme).

Theme 1: The Communication Practice of the Commission towards Having a Safe and Friendly Environment.

The finding from the study showed that, the communication practice so far is not sufficient and could not bring any attitudinal and behavioral change to the public of Addis Ababa towards bringing a safe and friendly environment. The communication practice of the commission has not brought inter organizational or institutional coordination between the commission and key actors. Coordination with key state and non-state actors for instance ,NGOs, Governmental organs , medias and others is not strategically established to achieve the intended goal.

The communication cannot bring the advantage or benefit of coordinated effort, synergy and speak as One Voice with other key actors to create the attitudinal and bring behavioral change among the public of Addis Ababa. The benefit of local innovation is not communicated by the commission, thus the residents of Addis Ababa is still continuing to use plastic bags and bottles.

In general the finding indicated that the commission has undertaken its communication without predetermine goals or destination, even though the commission has comprehensive institutional plan ,the communication plan lacks strategic communication aspects, particularly in defining communication goal and objectives , channel selection and way of implementation. The communication has not performed as

integral or major activity of the institution, thus it is not carried out by professionals or experts of public relation or communication but rather unrelated one that is technical experts of environment.

The above finding towards the strategic communication practice of commission is contradicted with the remark made by two p communications scholars and practitioners Holtzhausen and Zerfass. They, both stated strategic communication is the practice of deliberate and purposive communication that the communication agents enacts in the public sphere on behalf of a communicative entity to attain the set goals (Holtzhausen and Zerfass,2013)

Similarly Tyson (2004) also made same explanation about the importance of strategic communication to one organization. He stated that strategic communication is particularly significant for effective organizational communication performance to achieve its goal. When the communication practice determined as strategic; first, the activities are not random or unintentional communications even though unintended consequences of communications can adversely impact the ability of an organization to achieve its strategic goals. Importantly, strategic must not be defined narrowly. Instead, strategic is a rich, multidimensional concept that needs to be examined broadly. Second, the concept of strategic communication emphasizes the fact that communication ought to be the focal interest of at organizational level. The value of such an approach is readily apparent if communication is defined as the constitutive activity of management.

Theme 2: The Communication Channels Employed by Commission and Their Effectiveness towards Using Environmentally Friendly Products.

The finding indicated that the strategic communication practice of the commission has undermined the integrated communication channel usage. instead much focus has been given to one type of channels of communication that is seminars ,workshops and the rest communication tools such as mass medias, print medias and website, particularly social medias were underutilized to reach the wider audiences.

Related to this the study also revealed that, the commission has not used multiple channels or it has not integrating the aforementioned tools (workshops and seminars) with the other forms of channels. Though workshops and seminars are interactive (two way) communication without integrating them with other interactive/two-way medium

of channels such as social media, the commission cannot get the willingness or intent of the residents to engage in pro environment behavior.

Hallahan, (2004) by using multiple communication tools, organizations can promote positive attitudes and behaviors towards their organizational objectives and mission, and will help convert ordinary constituencies to the intended behavior accordingly. Communication channels in strategic application and often give you a greater degree of control to targeted audience for achieving the mission. The application of multiple channels mentioned are the main strategic communication tools which create effectiveness.

Similarly, Kreps (2002) also mentions the multiple usage of communication channels communication strategy is the connective tissue that creates message consistency, clarity and understandability across all channels and finally ensure intended objective or mission achievability among the audiences. Effective communication without integrating channel tools or channels of communication is not achieved, and when communication channels supplement each other usually serve as an utilization elements to encourage organizational effectiveness.

Theme 3: Coordinate the Environmental Communication with Other Key Actors

The findings in this regard revealed that coordination with other key actors and speak as One Voice towards the ensuring safe and environmentally friendly environment has not been achieved. The strategic communication practice which lack the advantage of coordinated effort, with others to create the attitude and bring behavioral change among the public of Addis Ababa.

However, this contradicts with the environmental communication scholars view; Alam and Mubarak. They both explained about the essentiality of coordination with key actors for instance medias and NGOs. Medias or NGOs can play a very significant role in leading and promoting communication as well as outreaching at grass roots level. Moreover, the ability of these key actors to provide an independent view is crucial to building trust in the issues and help enact behavioral/cultural change in communities Alam & Mubarak (2012). The two scholars view also mentioned by the World Health Organization, (2017), Strategic Communication Framework for Effective Communications: “communicators has to regularly reports on current partner messaging.

With timely information, communicators can monitor whether partner messaging aligns with the environmental communicators information, advice and guidance.”

Theme 4: Key Communication Barriers Encountered by the Commission

Based on the responses of the interviewees, the commission has many communication barriers internally and externally, but all are the results of weak communication practice of the sender (i.e. the commission) **not** to behave the receivers (the public and key stake holders) of the information /message as intended that is pro environmentally.

Similarly, the communication barrier of communication mentioned by Eisenberg (2010) mentioned a number of barriers which negatively impact effective communication between the sender and receiver of the message, and divided into four categories: process barriers, physical barriers, semantic barriers, psychosocial barriers. But among these, the process barrier (which includes receiver and sender barrier) **are most associated with the communication barrier occurred in A.A City Government Environmental Protection Green Development Commission.** The process barrier mainly caused by the sender deficient understanding towards the complete communication practice.

On the contrary, every communication barriers could be overcome or improved when the communication has undertaken strategically. Strategic communication is to minimize as much as possible barriers to communication and achieve organizational mission and intended objectives. According to Hambagda (2000), and Hybels and Weaver (1992), mentioned similarly the following strategic communication practices to improve or improve the barriers and have effective communication. They mainly include;

- ✓ The message should be well pre planned in order to bring the most intended objectives thus when to transmit, what message and how to transmit (channels) are the key to any communication.
- ✓ Appropriate channels of communication should be selected for transmitting information. The choice of channel is a function of the nature of the message to be transmitted.

- ✓ Communication is considered complete when a feedback is given to a message. This should be encouraged as a way of confirming how successful the communication was.

Theme 5: Regarding environmental communication campaign of local eco innovators

The interviewees, field observation and existing documents revealed that A.A. City Government Environmental Protection Green Development Commission communication practice has weakness towards communicating residents of Addis Ababa about local eco innovation as feasible solution to reduce the negative impact of plastics in the city. Thus, the commission has **not** taken the leading role to mobilize other key stakeholders for collaboration and engagement by formulating effective strategic communication practice particularly through campaigning to bring attitudinal and behavioral change among the residents of Addis Ababa with in short time.

Therefore, the finding of the study revealed most respondents strongly have made their remarks and suggestions towards the commission has not used communication campaign, as the major strategy in the communication to bring the intended objective particularly behavioral change among the public of Addis Ababa to use local eco innovation.

This finding contradicts with the Cox (2009) remark about environmental communication campaign, and stated that, communicators of organization to make their communication effective and to achieve organizational goal within a specified period of time and to influence large audience in some measurable way , they decide to use communication campaigns as strategy of their communication plan. It is intended to generate specific outcomes within a specified time, and through an organized set of communication channels.

Similarly, A.A. City Government Environmental Protection Green Development Commission has not done any communicational activities to promote or create awareness towards local innovation as part of the solution to substitute plastics, which the city is hugely suffering from it currently. However, with the exception of two environmental concern organizations NGOs', the SNV and Forum for Environment have shown better willingness to support local green innovation financially and technically, and extend their support in promoting their work. In addition, the finding also revealed

that the commission has not done any effort either to promote or advertise their innovation to the public. As a result no behavioral change among the citizens to use their innovations and the environment is continuing to heavily polluted, and instead most private business organizations were openly observed to import the foreign expensive technologies.

The commission has not promoted or advertises towards local eco innovation to the public. As a result no behavioral change among the citizens to use their innovations and the environment is continuing to heavily polluted, and instead most private business organizations were openly observed to import the foreign expensive technologies. The interviewees from Addis Ababa Solid Waste Management Agency and the two NGOs, Forum for Environment and SNV indicated different from the policy gap rather they believe the communication gap created the public to have lack of awareness regarding environmental friendly products , they were not communicated well .The products need to be promoted well, the people have to know about the benefit of these products. Since people were not strategically communicated by the responsible environmental protection body, they were not pro environmental behavior.

Finding from Document Reviews and Field Observation

Even though the finding are mentioned in the aforementioned discussion , in order to give emphasis and highlight some of the main findings from field observation and document review again in separate part ,here below are discussed in detail. The findings from the field observation as well as review of documents are (particularly the Annual Strategic Plan (2019/20) and Environmental Policy) and overall field observation.

The finding here below is presented after the annual strategic plan (2019/20) is corroborated with the literature (theoretical and empirical) and analyzed;

- ✓ The communication plan was totally disregard the high importance of local eco innovation, and unable to network eco innovators with other key actors mainly financiers and medias
- ✓ The plan totally copied or duplicated from other non-environmental organization, and lacks environmental context.

- ✓ It does not state or mention what type of channels used ,how it is used ,when to used ,why it is used, it grossly states as “media has important contribution to send the message to the public”
- ✓ It lacks to integrate the tools and medium of communication; it is over emphasized only the workshops and seminars but ignore mostly the rest particularly powerful tool i.e. social media.
- ✓ It does not include the strategic aspect of the implementation, i.e. it simplify stating or listing communication medium/channels and tools, but not to include the how, when and why strategic factors of the plan.

On the Environmental Policy Aspect (Environmental Pollution Control Proclamation No.300/2002, and Solid Waste Management Proclamation No. 513/2013).

- ✓ Based on response given by the interviewees to the and the review made on documents (two policies) by the researcher, it is found that the environmental policy exclude of green innovation particularly the local innovation. The policy does not provide any support (particularly incentive scheme) to individuals and business entities who are using, or innovating and producing environmentally friendly products. The policies totally disregard the significant contribution of local eco innovation to environmental protection by substituting plastic bottles and bags.

In relation to the Field Observation

The finding from the field observation has showed that broadcasting media usage particularly the state owned TV channels and Radio stations in which the observation consider , the commission has never been used these mediums to communicate or to transmit its message to any of the audience. That is the commission has not prepared any programs or press releases which has been intended to reach the audience. Similarly, the print medias and promotional materials both had not used by the commission to communicate the public or specific group of audience for message transmission.

However, differently from other types of communication channels, the event engagement which includes seminars, workshops, panel discussion and press conferences; are used by commission most frequently (as it is mentioned before the COVID 19, on average 5(five) Seminars and workshops have been held per month.).

CHAPTER FIVE

5. SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1. Summary

The study aimed to explore how the communication practiced within the A.A City Government Environmental Protection Green Development Commission towards using environmentally friendly innovations. Specifically the study has been undertaken to find out whether the commission has strategic communication approaches towards having a safe and friendly environment and how local eco innovations are communicated to the public of Addis Ababa. In addition, it has been examined also the effectiveness of the communication channels employed by commission towards use of local eco-friendly products and has identified the challenges encountered by the commission while communicating the public. This research follows qualitative approach adopting exploratory method. In-depth interview of key informants and unstructured observation employed to capture the more understand and subjective issues that enriched the research findings. With regards to secondary data, the researcher has been intensively reviewed and analyzed communication plan, annual report and quarterly reports, environmental policies and other existing relevant knowledge of related researches, articles, publications, non-governmental analysis reports, strategies from relevant local to global sources. Moreover, the researcher used two sampling techniques of purposive sampling, the initial research participants from A.A City Government Environmental Protection Green Development Commission 8 (eight) and from the rest key state and Non state institutions 17 (seventeen)were selected based on expert sampling techniques and snowballing. Snowballing sampling was used based on the first interviews reference /recommendation of other participants of research. Sample sizes in qualitative research should not be so small as to make it difficult to achieve data saturation, theoretical saturation, or informational redundancy.

In general, in exploring the A.A City Government Environmental Protection Green Development Commission communication practices in environmental protection, the major finding of the study are summarized in relation to the research question and research objective of the study.

Therefore, **below each summarized findings are presented as follows:**

1. With regard to the commission strategic approach towards having a safe and friendly environment

The communication practice of the commission lacks strategic communication approach, first ,the commission has undertaken its communication without predetermine goals or destination, even though the commission has comprehensive institutional plan ,the communication plan lacks strategic communication aspects, particularly in defining communication goal and objectives , channel selection and way of implementation. The second, communication has not performed as integral or major activity of the institution, thus it is not carried out by professionals or experts of public relation or communication but rather unrelated one that is technical experts of environment.

2. In relation to the communication channels employed by commission and their effectiveness towards using environmentally friendly products.

The communication channels of the commission has not employed and used strategically and thus the channels used are not effective. This is because; first it has undermined the integrated or multiple communication channel usage. Instead much focus has been given to one type of channels of communication that is seminars , workshops and panel discussion, and the rest communication tools such as mass medias, print medias and website, particularly social medias were underutilized to reach the wider audiences.

Therefore, as it has been mentioned above, the Communication Strategic Plan document; interactive channels of communication was undermined and instead much focus has been given to on one-way communication tools such as mass medias, print media and website, particularly TVs, radios and newspaper to reach wider audiences. These one-way channels without integrating them with other interactive/two-way medium of channels such as social media, the commission cannot get the willingness or intent of the residents to engage in pro environment behavior.

Secondly, the commission has not explicitly mentioned in the planning regarding the channels when to use, what to use ,how to use multiple channels and it has not integrating the aforementioned tools (workshops, seminars and panel discussion) with the other forms of channels. Though workshops and seminars are the interactive type communication, yet without integrating them with other interactive/two-way medium of channels mainly social medias, the commission had not achieved get the willingness or intent of the residents to engage in pro environment behavior.

3. Coordinate Communication Practice with Other Key Actors

In this regard the commissioner could not create coordinated communication activity with other key actors and speak as One Voice towards the ensuring safe and environmentally friendly environment. Thus, the communication practice of the commission has not been benefited or advantageous from the coordinated effort, or partnership to bring pro environmental behavior among the public of Addis Ababa. The

essentiality of coordination with key actors mainly with medias and NGOs. These two can play a very significant role in promoting and outreaching at very low level ordinary citizens.

4. The communication barriers encountered by the commission while communicating to the public

The commission cannot improve the communication barriers occurred while transmitting its message to the public to bring the intended result. The main communication barriers which has been occurred in A.A City Government Environmental Protection Green Development Commission has been originated from the way of communication has been undertaken by the commission itself, which mainly include;

- ✓ The message has not well pre planned in order to bring the most intended objectives thus, when to transmit, what message to transmit and how to transmit (channels) were not identified.
- ✓ Appropriate channels of communication were not selected for transmitting information.
- ✓ The communication is not complete since lack strategic aspect and no tool to receive feedback about message from the public (audience). This was used as tool or as a way of confirming how successful the communication was.

5. Regarding communication campaign of local eco innovators or communicating eco innovators through campaigning.

A.A. City Government Environmental Protection Green Development Commission communication practice has wide gap towards communicating the public including key actors about local eco innovation as feasible solution for plastics. Thus, the commission has **not** formulating effective strategic communication practice particularly through campaigning to bring attitudinal and behavioral change among the residents of Addis Ababa to use local eco innovation. Therefore, the finding of the study revealed the commission has not used communication campaign, as the major strategy in the communication to bring the intended objective particularly behavioral change among the public of Addis Ababa.

In general, the study found out that, A.A. City Government Environmental Protection Green Development Commission has not practiced its communication strategically,

which this brought **ineffectiveness** in the whole communication process and in achieving intended objectives and mission

5.2. Conclusion

The communication practice of the commission has great importance but poorly performed by the responsible institution.. The communication practice of the commission lacks strategic approach towards its communication activity and thus the practice become ineffective. The plan which is designed by the commission is incomplete and ignore to incorporate starategic aspect or elements (mainly it does not state or mention what type of channels used ,how it is used ,when to used ,why it is used , in addition it lack to employ integrated communication channels).

Though Addis Ababa is currently facing an ever-rising environmental pollution; local eco innovation can deliver a solution in this regard. Strategically communicating the benefit of green innovation could be harvested if only the commission's with other key actors strategically formulate its communication plan and implement it accordingly.

Though the nature of environmental communication strongly requires the engagement of various stakeholders but this could not be achieved by the commission communication practice which lack strategicness according to the study. The communication cannot bring the advantage or benefit of coordinated effort, synergy and speak as One Voice with other key actors to create the attitudinal and bring behavioral change among the public of Addis Ababa. The benefit of local innovation is not communicated by the commission, thus the residents of Addis Ababa is still continuing to use plastic bags and bottles.

The commission has undermined he utilization of the integrated or multiple communication channels. Much focus has been given to one type of channels of communication and the rest communication tools particularly the current powerful communication tool mass medias, print medias and particularly social medias were underutilized to reach the wider audiences. In addition the channels when to use, what to use ,how to use the multiple channels were not defined ,planned and implemented for implementation. **B**roadcasting media usage particularly the state owned TV channels and Radio stations in which the observation consider , the commission has never been used these mediums to communicate or to transmit its message to any of the audience. That is the commission has not prepared any programs or press releases which has been

intended to reach the audience. Similarly, the print medias and promotional materials both had not used by the commission to communicate the public or specific group of audience for message transmission.

In addition, the commission could not create coordinated communication activity with other key actors and speak as One Voice towards the ensuring safe and environmentally friendly environment. Thus, the communication practice of the commission has not been benefited or advantageous from the coordinated effort, or partnership to bring pro environmental behavior among the public of Addis Ababa. The essentiality of coordination with key actors mainly with medias and NGOs. Medias or NGOs can play a very significant role in promoting and outreaching the wider ordinary citizens. In addition, barriers of communication has been encountered by the commission and which has been originated mainly from the way of communication has been undertaken or the lack of strategicness of the communication by itself. Therefore, unless it has made the communication strategic, the commission cannot fill the gap these communication barriers occurred while transmitting its message to the public to bring the intended result.

The A.A. City Government Environmental Protection Green Development Commission has **not** formulating effective strategic communication particularly through campaigning to bring attitudinal and behavioral change among the residents of Addis Ababa to use local eco innovation. Therefore, the finding of the study revealed the commission has not used communication campaign, as the major strategy in the communication to bring the intended objective particularly behavioral change among the public of Addis Ababa.

Finally, pro environmental behavior towards the benefit of local innovation by commission plays a critical role to engage key stake holders for safe and friendly environment. Plan and execute environmental education and behavioral change of the society through environmental communication campaign of integrated channel usage is one major strategy required for creating friendly environment. All these could succeed through strategic planning and implementation of the communication to bring effective communication practice with in the commission.

5.3. Recommendation

- A.A City Government Environmental Protection Green Development Commission has to develop a framework environmental communication practice for environmentally friendly products to the public of Addis Ababa through educating the public and promoting ecofriendly products aggressively. In order to achieve this, it is essential that the each key actor should play its part and recognizes the benefit of local innovation for safe and friendly environment.
- The issue of environmental communication should not be simply an issue of the government or top level but it should be at all levels, from the *woreda*-level to the national-level. Environmental organizations have to focus more strongly raising awareness and behavioral change. Thus, the commission should create a platform for instance public discussion (meeting) at the *worda* level is an effective channel to bring strong awareness among the public.
- Involvement of all state and non-state key stakeholders in their coordinate communication practice, networking and experience sharing at all levels could help countries to learn from one another in identifying appropriate sustainable development, including environmental policies. Subsequently, voluntary exchange of experiences as well as capacity-building in the different areas of environmental communication practice with other benchmarking neighboring countries should be brought.
- Lack of awareness towards the essentiality of collaboration and partnership with other key actors to bring effectiveness in their communication practice and thus to achieve the desired objective of the organization. Therefore, the commission with other similar environmental concern organizations should have strong coordination and incorporate within their plan as well. As a result positive and strong engagement from medias, business sectors, other environment concern organizations and in general from the public will be achieved.
- A.A City Government Environmental Protection Green Development Commission and other key state and non-state organizations better develop their communication strategy considering the integrated use of communication channels mainly social and mainstream media, publications, and environmental campaigning .Thus ,public awareness and pro environmental behavior shift will be realized.

- Lack of skilled environmental communication experts within the. A.A City Government Environmental Protection Green Development Commission has made the communication practice is ineffective. Therefore, considering the great importance of engaging public relation professionals, the commission should employ communication experts to achieve the goal of their organization. Nevertheless, skill development through facilitating short and long term training is also the other alternative to improve the communication skill of public relation officers.

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Appendix A

**Interview Guide Questions (IGQ)
Addis Ababa University
School of Journalism and Communication**

(For CGEPGDC's Communication and Public Relation Director)

Name of Interviewee: _____

Place of _____

Interview:Date of _____

Interview:

Duration of Interview:_____

Introductory question

IGQ 1: Could you highlight for me the level of environmental threat in Addis Ababa particularly by plastic bags and plastic bottles wastes?

(To examine the holistic nature of institution's communication practice the following question is asked :)

IGQ 2: Could you tell me a little more about what means of communication do your institution employ to protect environmental pollution caused by mainly the aforementioned pollutants?

IGQ 3: Do you believe the role of local eco-innovators is significant to be part of solution? If yes, how do your institution work together to communicate these innovation to the public?

(To examine whether the institution's communication is practiced according to short/long term plan, the below question is presented :)

IGQ4: How do you asses and incorporate the behavior of your target audience while developing the organizational communication plan?

(To evaluate the common coordination effort among environmental protection organizations and thus the effect/outcome of communication, here below question is asked :)

IGQ 5: How do you describe sending the message as One –Voice with other environmental organizations including media and other environmental concern nongovernmental organizations?

4. Regarding communication channels do you use?
5. How do you make your environmental issue/agenda as a common goal among others?

(To examine the degree to which the institution is communicating about a variety of environmental topics, the following research question is asked :)

IGQ 6: Which environmental issue or topic is the institution communicating about most often?

(Organizations use many channels to disseminate messages to key publics. To explore channels for environmental communication the following question is forwarded)

RQ 7: Which channels of communication does the institution use ?(which one is most frequently ? ,and which one the least frequently ?

(To identify the challenges, strengths and weaknesses of public relation roles in the communication practice.

IGQ 8: Would you like share your experience regarding the challenges you encountered while you communicate the public? And what kind of measure you took to correctify?

RQ 9: How do you describe your strategy while crafting the content of the message to the key audience of yours ?

- Which publics segments are most commonly targeted as **key audiences** of the environmental message? How do identify them? How suit the message to them?

- How do you to evaluate whether the tools, activities and material you used meet the goals your institutions for building pro environmental behavior

Appendix B

Interview Guide Questions (IGQ) / Guide for Interview

Addis Ababa University

School of Journalism and Communication

(For CGEPGDC's Public Relation Officers)

Name of Interviewee: _____

Place of Interview: _____

Date of Interview: _____

Duration of Interview: _____

IGQ 1: How do you explain the level of environmental threat in Addis Ababa with regard to pollutants by plastic bags and plastic bottles?

IGQ2: How do you explain your institutional role to protect with the environmental pollution caused by the aforementioned pollutants?

IGQ 3: How do you communicate with other environmental organizations including the non- governmental and media?

IGQ 4: Do you believe the role of local eco-innovators is significant part of solution? If yes, how does your institution work together in promoting these innovations?

- to the general public/residents of Addis Ababa
- to non-governmental environmental concern organizations
- medias

IGQ 5: How do you r institution communicate with environmental issue specifically to the environmental pollutants?

IGQ 6: How does the environmental communication functioning in your institution?

IGQ 7: What are the major challenges of your institution and yourself werefacing while communicating the environmental issues?

Appendix C

**(Guide for
Observation)Addis
Ababa University
School of Journalism and Communication**

**Communication Channel Observation
Checklist**

The following checklist observation for communication channels is developed to determine the usage of communication channel by A.A City Government Environmental Protection Green Development Commission

Date of Observation:

Description of channel type	Frequency of Usage			
	Never	Sometimes (1 times per month)	Often (2 times per month)	Very Often(4 times per month)
1.Broadcasting				
Radio(frequency & time)				
✓ <i>Weekly/monthly/yearly</i>				
✓ <i>On Prime time show or other</i>				
✓ <i>Regular /non regular program (as documentary)</i>				
TV (frequency & time)				
✓ <i>Weekly/monthly/yearly</i>				
✓ <i>On Prime time show or other</i>				

✓ <i>Regular /non regular program (as documentary)</i>				
2.Print Medias				
Newspaper				
Magazines				
3.Social Medias				
Facebook Twitter				
Telegram				
4. Promotional materials				
Flyers				
Leaflet Brochures				
5.Website				
6.Public Signage				
Billboards Posters				
7.Event engagements and speeches				
Seminars				
Workshops Panel discussion				
Conference				

Appendix D

(Guide for Interview)
Addis Ababa University
School of Journalism and Communication
(For Key State and Non state actors)

Name of Interviewee: _____

Place of _____

Interview:Date of _____

Interview:

Duration of Interview: _____

RQ1: Could you explain for me the level of environmental threat in AddisAbaba particularly by plastic bags and plastic bottles wastes?

RQ2: Could you tell me more about the communication practice of A.A. City Government Environmental Protection Green Development Commission, and what they did so far in coordinating their communication with you and others for environmental agenda or message?

RQ3: Do you believe the role of local eco-innovators is significant to be part of solution? If yes, how does your institution work together with other major environmental organizations communicating these local innovations to the public?

RQ4: How do you asses the environmental behavior of the public while towards the benefit of local eco innovation?

RQ5: How do you describe sending the message as One –Voice with other environmental organizations including media and other environmental concern nongovernmental organizations?

- What kind of communication channels do you use ?
- How do you make your environmental issue/agenda as a common goalamong others?

- How do you see the use **environmental communication campaign** in this regard?

RQ6: Which environmental issue or topic is your institution intends to communicate most often?

RQ7: Which channels of communication most often used by? (which one is most frequently ? , and which one the least frequently ?

RQ8: Do you think your communication campaign bring the intended objective regarding some behavioral change among the public?

RQ9: Would you like share your experience regarding the communication barrier you encountered while you communicate the public? And what kind of measure you took to correctify?

RQ10: How do you describe your strategy while crafting the content of the message to the key audience of yours ?

- Which publics segments are most commonly targeted as key audiences of the environmental message? How do identify them? How suit the message to them?
- How do you to evaluate whether the tools, activities and material you used meet the goals your institutions for building pro environmental behavior?