

ADDIS ABABA UNIVERSITY
SCHOOL OF GRADUATE STUDIES
COLLEGE OF SOCIAL SCIENCES
DEPARTEMENT OF SOCIAL ANTHROPOLOGY

**Health Promotion through the Usage of Local
Resources and Values or Norms in Hadiya Zone of
Southern Ethiopia: The Case of *Bobicho Kebele* in
*Lemmo Woreda***

By
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**A Thesis Submitted to the School of Graduate Studies of Addis Ababa
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of Arts in Social Anthropology**

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ABSTRACT

This study aimed at discussing on the environmental health behavioral changes that are prevalent among Hadiya of southern Ethiopia. Specifically it is concerned on exposing the prevailing environmental health practices, the outcomes that appeared with the improvements, examining the attributes of the success and discussing on the condition of sustainability of practices. To this end, ethnographic method of data collection technique such as unstructured interview of key informants, focus group discussion and observations were employed. By using the aforementioned method, it is found that there are visible shift of behaviors of environmental practices which is manifested in people engagement of the practice by ceasing their old ways. For example, people began to use latrine as opposed to their old tradition of using open defecations. The shift of environmental practices have brought observable improvements in the health of the people that include reduction of communicable diseases, woman work load at house hold and having aesthetically valued environment. It is also found that there are intertwined factors behind the changes of the environmental health practices. Culture sensitive health intervention by which people sensitized through self disgusting mechanisms help the community to develop negative attitude toward waste environmental conditions; and have new conception of it. Active community participation that are recurring and conducted by the local language enabled people to involve in health issues and usage of community social structures such as local institutions, social work groups, and community based health workers play important role in terms of teaching and spreading of health messages and performing laborious activities that are rarely achieved by health professionals in local setting of Ethiopia. The prevailing environmental health practices are tending to sustain because the practices are integrated with in the community.

Chapter One

1.1 Background of the Study

Ethiopia has poor social conditions (education, housing, sanitation, etc) and with more than 50% of its population illiterate and under the poverty line, the level of communicable diseases are found to be of the highest magnitude (Abera, 2005: 94). For example, according to official reports, the current latrine use as proportion to population coverage for rural, urban and the country is less than 7%, 68% and 15% respectively (Berhane & Williams, 2010: 91).

Strategies in addressing the environmental health in Ethiopia has inherent problem. Generally, a critical look at the strategy vividly reveals that it is out rightly top-down approaches. Everything designed at the top and the community at the grass root level is merely consulted as an afterthought. That is why there are high complaints as far as health intervention implementations in local levels are concerned.

In Ethiopia, health intervention strategies that include both environmental health in particular and other aspect of health in general have some limitations to promote behavioral changes. The limitations can be seen in structural terms and health professionals' problems. In structure terms, for example, the local levels health workers have challenges to get access to wider people and promote environmental health behavioral changes due to communication barriers or lack transportations. There are also challenges in terms of both shortages and absenteeism of local health workers (HEWs). At lowest administrative levels, two semi-trained health workers are supposed to serve wide people, and most of times they leave health posts for various reasons. There are also some cultural challenges of unfamiliarity of local health workers to understand environmental health behaviors of people in local settings (Yemane, et al 2007:1-3), (Yayehyirad et al 2007:1), (Samuel, 2007). These problems have been hindering efforts in reaching the community at the grass root levels to mobilize people and promote environmental health behavioral changes.

Despite problems inherent in trained manpower, usage of community sources in health interventions including environmental ones is not as it would be. In most respect, they are

considered challenges to health interventions. For example, there are such an outright suggestion that ‘Willingness and readiness of the community to cooperate in the joint effort to fight diseases is also one factor that hinders efficient environmental health implementations.’ As such, in most instances communities are considered cultural barriers in implementation of health interventions that include environmental health (Abera, 2005).

However, when it is seen from development perspective, community structures like community social capital has uncontested benefit. Communities’ social capital has clear advantage in participatory development approach (Sardan, 2005). Social capital enables works within the existing networks such as neighborhood and religious organizations and other community associations. For example, as suggested by scholars, social capitals such as local institutions, social networks like informal connections have an avoidable advantage for example in terms of creating easier assimilation between the beneficiaries and the development projects. Communities are the source of material, labor and monetary sources, which ultimately lead for efficient implementation development endeavor (John, 2008).

The above few explanations vividly show that there is a lesser use of local resources such as community-based institutions, social connections; lack of active community participation and culture sensitive health intervention approaches as far as environmental health interventions strategies in Ethiopia is concerned.

In contrary to general environmental health situation, however, recently, pockets of villages in Ethiopia have been demonstrating remarkable achievements in environmental health practices by using community structures and resources and employing participatory approaches (Mehta, L. with Bongartz, P:2009, Keamalkar and Robert Chamber:2008). The relative significance of local endeavors, i.e. social institutions, associations, work groups and informal connections in health interventions at grassroots levels are not well note in researches so far. Research works are few and incomprehensive that cannot provide enough information about the specific cases.

Hadiya is one of the few areas where its rural mass recently demonstrated remarkable change on their environmental health condition through the usage of local structures and resources. There is remarkable shift toward environmentally sound practices, which has brought visible impact on the health of the people.

Therefore, this research is to give explanation on the environmental health success history among Hadiya based on site of *lemmo woreda* where changes in environmental health practices have recently emerged.

1.2 Statement of the Problem

People of Hadiya in Lemmo woreda are able to achieve changes in behavior of environmental health practices such as sanitation and hygiene. The local level health institutions sources vividly show that there appeared drastic changes in environmental health practices such as hygiene and sanitation. People, for example, have been using latrines as opposed to long persisted tradition of open defecations. Houses and their environs are being significantly becoming clean, separate houses for animals and of the people, which are by far a great shift compared to the tradition of the people. House to house visits reveal that the *kebele* has achieved hundred percent in terms of latrine coverage, which is by far better as compared to only 7% coverage for rural Ethiopia (Abera, 2005). The changes in the behavior of the environmental health have brought improvement in the health of the people, which are observed in terms of reduction of communicable diseases, deaths and diseases of mothers, and children who are vulnerable to hygienic problems in community.

Governmental officials tend to associate the environmental health achievements to the professional and administrative bureaucratic services that are rendered to local level health interventions. For example, they give high place for health extension workers who are female semi trained health professional working in local settings of Ethiopia. As it is the case of local level health workers and governmental bureaucracies in rural Ethiopia, the health workers in the study community have some problems that have been limiting them to bring behavioral changes. Health workers called Health Extension Workers are challenged from problems such as communication and failure to understand people's health behavior, and shortages of manpower to address wider services to promote health behavioral changes to wider community level as it is the case to country level (Ambachew, 2011). Health extension workers, for example, spent considerable time in health posts, which are less accessible to the local people. However, my personal filed visit shows that local values or norms and resources highly contributed to the achievement of the behavioral changes because they provide services that can hardly be provided by government health workers. For example, local social artisans and community based

institutions, promoted the behavioral changes, among other things, by teaching and spreading environmental health ideas to wider people in the community. Despite considerable contributions of local value systems, local level health officials associate environmental health achievements to government oriented health workers and other governmental bureaucracies.

Local level health professionals associate the environmental health achievements to local setting public health teaching strategy that include environmental health interventions. For example, they relate the environmental health achievements to governmental public health education strategies at local level. However, as it is the case for the national level public health education system, the public health teaching systems in the study area have some limitations to promote behavioral changes. This is because the teachings took place in health posts where people are less accessible or reachable. They are also provided by local health workers (health extension workers) who often face challenges in their teaching because of their problem to understand environmental health behaviors of the people, and shortage of manpower to reach and teach wider people as it is the case in country level (Alula, 2008).

As to my personal observations in the field visits to the study area, however, the behavioral changes are primarily attributed to culture sensitive health intervention that is health promotion strategy conducted by sensitizing people through culture sensitive techniques. The approach, unlike health teaching in local context of Ethiopia that depends on information exchange in health posts, focuses on changing health behavior by deconstructing peoples' environmental malpractices through various conditioning techniques based on their mode of cultural adoptions. For example, the approach promotes collective behavioral changes because it is performed directly with in people, and allowing people self-examining their environmental health problems through continuous dialogues.

While the environmental health achievements and the contribution or the role of local resources and norms in bringing about the environmental health behavioral changes need research, studies are not conducted so far. There are few survey and fragmented reports from the governmental and non-governmental agencies. For example, M. Mehta, L. and Bongartz, P. (2009) in their survey of the emerging sanitation achievements in southern Ethiopia, give general report about the environmental health achievements of the study area. Local levels NGOs like EECMY

provide reports that are fragmented, and cannot give detail about the environmental health achievements.

The purpose of this research is to fill this gap. It attempt to find out the environmental health behavioral changes and examine the health intervention approaches that are employed in brining the environment health behavioral changes, explore the contributions of local values, norms and institutions and social networks to the achievement of the environmental health behavioral changes, and attempt to understand challenges that exists within it.

Based on the above statement of the problem, the following questions are addressed in the study.

- Which sanitation and hygiene related behavioral changes are occurring in the study area?
- What are the outcomes of the environmental health behavioral changes on the health of the people?
- How do health intervention strategies or approaches bring about the environmental health behavioral changes?
- How have the local institutions and social connections enhanced the environmental health behavioral changes?
- What are the challenges and opportunities of the environmental health achievements?

1.3 Objectives and Research Questions

1.3.1 Objectives

1.3.1.1 General Objective:

Generally, the purpose of this research is to assess sanitation and hygiene related behavioral changes that are reportedly occurring in the study area, *Bobicho*; and explore the role of local resources and norms in enhancing the changes.

1.3.1.2 Specific Objectives

- Explore sanitation and hygiene related behavior changes occurring in the research area.
- Assess the outcomes of behavior changes of the environmental health on the health of the people (especially on women and children).

- Examine approaches (interventions) employed to bring about sanitation and hygiene related behavior changes.
- To explore local institution, social networks, and values/norms those have contributed to the achievement of behavioral changes.
- To understand challenges and opportunities for the sustainability of the achievements

1.4 Significance of the Study

Since this study aims to establish an ethnographic fact that imply the relevance of participatory development and its implication to various stakeholders, it will serve as essential insight to those tailors for improvement of sanitation and hygiene services. Such insight would be inferred from the practices of sanitation that is revealed in this study, specifically how development workers should work with local people and its socio cultural elements. From anthropological point of view, the research is hoped to emphasis the relevance of applied research in the country that is striving to deliver inclusive, participatory, efficient, and cost effective health services just by applying active community participation approach and using already existing social capital. In its wider context, the ethnographic presentations would inspire researchers and consultants to do further study in issues of using local institutions, social connections and related social attributes in health care projects.

1.5 Methodology

In conducting this study, primarily ethnographic ways of data collection techniques were employed because the issues under study are about social behavior. These data are extracted through varieties of qualitative methods such as interviews, focus group discussions and observations.

1.5.1 Data sources

In conducting this research, both primary and secondary sources of data are used. The primary data that are collected through different qualitative methods are the main sources. Data like books, magazines, and articles are utilized. These sources were information from different materials related to environmental health or sanitation, but the primary data, which are the main source of the study, were collected in the fieldwork. Particularly the archive materials such as

figurative documents and photos, which are taken from the health post, are used to verify data gained through other ways.

1.5.1.1 Interview

Interview is the main means of data collection in this study. Ethnographic data require unstructured interview because it is concerned on the meaning construction that needs extended information (Powd: 1996:332). As this study is concerned on health practices which obviously require wider information, interviews were conducted through unstructured questionnaires. The open-ended conversations through unstructured interviews helped me to collect wide information because it did not confine informants to answer specific question in the interview processes. Interviews were conducted so as to collect most of the qualitative data which are the main source of the study.

A total of 13 key informants who purposively selected from different social groups such as elders, government trained health workers and community based health workers (such as community health workers, community health promoters and community model farmers), *kebele* health administrators are interviewed because they are part of the environmental health behavioral changes. I selected key informants by making rapport with individuals who are concerned in the health promotion process. First, I contacted health extensions workers who are female governmental health workers. Then they contacted me with community health facilitator who is the head of all community based health workers. By consulting him, I selected all key informants because as he involved in the whole process of the health promotions, the community health facilitator has knowledge about the contribution of local resources in the health promotion, and key personal that can provide information. Elders and religious leaders with their knowledge of tradition provide relevant information on how local social institutions and different sorts of local social networks and self-help associations (such as *Geja* and *wijjo*) have really take part in enhancing environmental health practices. Different community based health workers (who are non paid and semi paid voluntary health workers) gave information on how they take part in enhancing the environmental health practices.

In most instances, the data that I gained through unstructured interview in study were very wide, and hence difficult to manage. In those instances, I often used tape recording, which enabled me to handle wide data.

1.5.1.2 Focus Group Discussion (FGD)

In this study, FGDs are conducted because there are some debatable issues. According to Brayman (1995), FGD is very useful in understanding issues of consensus and variation among members of the discussion, to obtain a group attitudes and perceptions by initiating the participants for active discussion. Three FGDs were conducted with different groups of people who in most time have varied view concerning the environmental health achievements. The first FGD is conducted with voluntary community based health workers who are both the agent and beneficiary of the environmental health changes. The second FGD is conducted with *Kebele* officials, NGO (EECMY, South Central Synod) officials, and religious leaders who have direct link in the environmental health change processes. The third FGD is conducted with elders (who are traditional governors of Hadiya representing the study area, *Bobicho*) and leaders of various social associations and work groups. The data gained from them helped me to elicit information on how local values play role in the health promotions processes.

1.5.1.3 Observation

Studies that require field visit and deal on human behavioral issues normally require careful observation to develop comprehensive insight on it. As suggested by Powd(1996:332) observation is viable methods in researchers that are concerned on human activities because understanding processes require involvement in it. The observations, among other things, help to grasp the data that were not easily caught by other means of the environmental health practices. My personal watching of the specific environmental health practices such as latrine usage, house management and waste management gave me a wider picture on the magnitude of the environmental health practices. In addition, in all visits I used to capture different sorts of photos which were helped me grasp data that are used to show the magnitude of the environmental health changes. Meticulous observation and note taking during observations helped me easily manage the data.

1.5.1.4. Participant Observation

My personal participation is not in strict sense of taking part on sharing in every practices of the community. Participant observations were conducted in two main themes that are pertinent to the objectives of the study. One is the participation in community conversations, which are recurring public health dialogue that are aimed to promote environmental health statuses through

continuous health debate. Through my repeated involvement in such dialogue, I captured data on how the dialogues enhance people's health behaviors. The second is participating in culture sensitive health intervention processes that are strategies employed to change people's health behavior by deconstructing environmental maladaptations through various techniques. I personally involved in the various mechanism of the approach. My personal involvement helped me understand how the approach able to change the community health behaviors.

1.5.1.5 Case Analysis

In line with the general methodological orientation, case analyses are used in this study. The case analyses are used in elaborating the culture sensitive health intervention techniques that are applied in the health promotions.

1.5.2 Data Analysis

This study is concerned in collection of wider range of information which also in most respect provided by the local language and thus data interpretation takes place by using co-worker who are assigned for this purpose and off course the process was not be difficult for I know the local language of the study people. Then the interpreted data were written in paper in order to quickly write and manage. The data are coded in some topics and subtopics that are set thematically arranged in line with the objectives of the study and help to easier handling of data by providing room for set identification for the raw data. As suggested by Soyini Madison (2005:37), the coding helped for easier recording of complex range of information and guides the analysis.

Qualitative data are analyzed through intense description based on the data gained through different techniques and the insight that is gained through observation in the fieldwork. Quantitative data are presented through tabulation in tables and figures.

1.5.3 The Site of the Data Collection

The site of this study is *Lemmo* district, which is one of the ten districts that constitute Hadiya Zone under the present administrative structure. From the *Kebeles* that constitute *Lemmo woreda*, *Bobicho* is selected for feasibility reasons. The *Kebele* has good sanitation standard. *Kebeles* who achieved good sanitation standard and cease to use open defecation often called graduated in governments health measures based on their achievement on health packages of the government. *Bobicho* is the earliest to be graduated and most data in the study are extracted from

various villages of the *kebele*. *Bibocho* is also selected for visibility factors in terms of location because it is the nearest to the *kebeles* under the study which is found only eight kilometer distance from the zone capital, Hosanna.

1.6. Ethical Consideration, Field Experience and Limitation of the Study

This study has its own limitation that requires conviction that would help the readers a fair understanding all through the readings. As the study is concerned with a new phenomenon, there is shortage of data. The data in most cases are not documented or they are not available at all and hence hindered to show the magnitude of the changes of the environmental health practices, and clearly articulate the attributes behind the environmental health successes. Especially, data concerning the role of local setting such as institutions, social work groups and other social capital are not documented well. Yet, most of data limitations were reduced by series interviews and field observations. The researcher interpreted the data that were provided by the local language because of financial problem to pay for professionals. This might affect the validity of some of the data. Most of such problems, however, were reduced by consulting key informants during data interpretations.

Various ethical issues were encountered while conducting this study but there were solved through some ethical considerations. The photographs capturing and interviews were made through the consent of the people. The various photos and interview information that are posted and quoted in this study are based on the permission of the people.

1.7. Scope and Organization of the Thesis

The scope of this study is limited in exposing the environmental health achievement and its outcome on the health of the people, especially on women and children. Moreover, it explores the contributions of local resources and values in bringing about the environmental health achievements. As to location, the study is confined in one *kebele*, *Bobicho*. In fact, there are some other *kebeles* who have demonstrated environmental health improvements and considered as ‘model’ for their achievement on health packages of the government. But one *kebele* is selected for purpose of efficient handling of data because the data sources of the study primarily are ethnographic which require in-depth analysis of specific cases.

The paper is organized in to five chapters. The first chapter presents the background of the study that includes problem statement, objectives and method; the second chapter is the literature reviews, which discusses the meanings and concepts of participatory development and contributions of social capital in health interventions. The third chapter presents background of the study that presents about location, economic bases, and modes of social controls of the study area. The fourth chapter, which is the main body of the study, presents the findings. The Fifth chapter presents conclusion.

Chapter Two

Literature Review

Introduction

This chapter presents discussion on literature reviews. At first, it presents the role of participation and social capitals in development interventions in general and health interventions in particular. In this part definitions and place of participation and social capital to the promotion development and health intervention are conceptualized. The chapter also presents about health intervention approaches by focusing on ecological approaches. In its last sections, the chapter presents some drawbacks that are inherent in Ethiopia environmental health intervention strategies and environmental health intervention approaches employed with local context of the study area.

2.1 Definitions of Terms

The terms environmental health (sanitation) and community are inherently used nearly throughout this paper. Thus, it is necessary to define what each term entail. For example, World Health Organization defines sanitation as “the establishment of environmental conditions favorable to health. It is also defined as the prevention of diseases by eliminating or controlling the environmental factors that form links in the ‘chain transmission.’ Etymologically the word sanitation is derived from a Latin term which means health (WHO, 2013:1).

Environmental health on the other hand entails ‘the control of all those factors in man’s physical environment which exercises or may exercise a deleterious effect on his physical, mental, and social wellbeing.’ Moreover, the term environment encompasses broader variables and to put it precisely it is the sum total of all external influences and conditions which affect health, life, and growth. These include the physical, biological, chemical and psychosocial environment (Ibid 2013:2). For the sake of contextualizing the term environment to this particular study I have taken its narrower sense which comprises local residential areas which in turn includes housings, nearby compounds, farm fields and watersheds around the rural set up of the study area.

The other concept that needs to be defined is community. However when we have a critical look in to it communities are defined in different ways. In reference to this, for example, geographic communities have constituted geographic, physical or political boundaries, whereas communities of interest are connected not by physical space they occupy but by having of an interest,

behavior, risk, or characteristics; professional communities on their own right share knowledge and skills as well as interest. After defining the basic terms which are used in this research paper, now let us turn our attention to the issue of community participation.

2.1.1 Defining Community Participation

Researchers who are concerned in study of interventions underscored the importance of community participation. However, concerning its meaning, it has been conceived and defined differently by different researchers. However, most of them present its significance to the development interventions. Biddle (1966:7), defined participation as “collective efforts to increase and exercise control over resources and institutions on the part of the groups and movements of those hitherto excluded from control.”

The definition mentioned above gives an insight on what community participation is. It advocates the need of offering wider range of freedom for community to have in resource control, decision-makings and initiation of development activities to upgrade their own wellbeing.

Be this as it may, the definition of community participation that does goes more in line with this paper is the one offered by Bracht and his colleague. As to Bracht et al (1999) cited in Escondon S. (2010:2) community participation entails “a process that plans to activate a community to use its own social structures and available resources to accomplish community goals that are decide primarily by members of the community and that are generally consistent with local values”. The fundamental point in this conceptualization is that in any interventions the targeted (beneficiary) community needs to be the center of intervention processes. Moreover, it also indicates the importance of using people’s social structures.

2.1.2 The Link of Community Participations and Interventions

Community participation and intervention endeavors have close link. The former, i.e. community participation plays important role in determining both the success and failure of interventions. Participatory approaches as it is seen in the following paragraphs, allows community or people mobilize their resources and thereby ease implementation of interventions.

In relation to the significances of participation in development intervention, William (1979) has identified five objective areas in which community participations can contribute to interventions. These are: (1) Sharing project costs: participants are asked to contribute money or labor (and occasionally goods) during the projects' implementation or operational stages. (2) Increasing project efficiency: beneficiary consultation during project planning or beneficiary involvement in the management of project implementation or operation. (3) Increasing project effectiveness: greater beneficiary involvement to help ensure that the project achieves its objectives and that benefits go to the intended groups. (4) Building beneficiary capacity: either through ensuring that participants are actively involved in project planning and implementation or through formal or informal training and consciousness raising activities. (5) Increasing empowerment by seeking to increase the control of the underprivileged sectors of society over the resources and decisions affecting their lives and their participation in the benefits produced by the society in which they live.

2.2 Relevance of Social Structures in Interventions (Social Capital, Social Institutions and Networks)

In general, social capital refers to systems result from social and economic attributes, such as worldviews, trust, reciprocity, informational and economic exchange, and informal and formal groups and associations. 'Social capital is made up of "the norms and networks that enable people to act collectively" because it generally meant overall part of the social norm (Woolcock and Narayan: 2000: 226). Although there is much contention over what interactions and types of organization constitute social capital, there is little disagreement about the role of social capital in facilitating collective action in interventions (Sillitoe and Bicker, 2004, Sillitoe, 1998). As would be detailed in the following few paragraphs, peoples' social capital have central role in interventions.

With regard to centrality of social capital in development interventions, different scholars argue that modern organizations are rule bound and with their accepted procedure they cannot address wider section of a social groups. This is because they are liable for bureaucracies while informal connections (Social capital) which often have a durable network of more of less institutionalized relationship of mutual acquaintance are accessible and acceptable, and suitable in intervention processes.

In connection to this, Collier (2002: 49) proposes three types of benefits that a social capital generates in development endeavors. First, social capital facilitates the transmission of knowledge about the behavior of others, reducing the problem of resistance through repeat social sanctions that establish trustworthiness. Second, it facilitates the transmission of knowledge about technology transmission. The transmission of knowledge can occur by pooling information in the context of networks and clubs or by imitating behavior. Third, by relying on norms and rules, social capital reduces the problem 'of free-riding', thereby facilitating collective action.

Edward and Foly (1997:677) as cited in John (2008:160) presented that social capital serve as medium of interaction between the 'outsiders and the insiders'. As to them social capitals like family, neighborhood voluntary associations and public institutions can serve as 'integrating medium' of element that surge information to individuals and the wider community. They further explained that the capacities, which community residents have obtained, and a determination of the kinds of organizational structures and leadership capabilities that have been developed within the community are important instruments in intervention processes because there are tributes that community possesses and its leaders endowed with in passage time.

The other pertinence of social capital and social institutions in interventions can be conceived from point of view of development agent lack of understanding the inner situations. As to Nustand (2001:489) development practitioners as an outsiders usually depend on the explanation of the outside phenomena which is too general to understand. The centrality of using local knowledge lies fundamentally in the provision of conscious and 'self-reflexive' knowledge of inner contexts that are necessary in intervention processes (Mohan and Kristian, 2000:268).

Researchers stress the need of local socio-cultural elements for basic fact that heterogeneity between the beneficiaries culture and the project implementers and the project itself.

As far as the place of social capital in interventions are concerned researches like Sardan emphasized incompatibility of the development agents what he call 'developer' and the local people or develops' in terms of communication and interpretation of project ideas in interventions. In this regard, these institutions such as association, church and peasant associations function as brokerage. He presents that 'function of brokerage, which can be accompanied by individuals who play different role often have prominent position compared to

members who have purely 'figurative' roles with in social settings (Sardan; 2005:176). Indigenous leaders can serve as culture brokers because they are familiar with the contexts. He further state that development workers who are trained in technical knowledge are strategically located to mediate between their technical knowledge and local cultural practices.

Others have emphasized the role of local institutions or resources in terms of producing a interfaces. Local settings like social institutions, values and knowledge serves as a means to negotiate any outside agents with local community. Institutions, among other things, give a room for bridging some ambiguities born out of cultural differences. By bridging discrepancies of social interest, cultural interpretations and knowledge, social settings help to transform conflicting situations between development agents and communities (Long, Norman: 2004:31). Local institutions fill the gaps that inevitably can be created because of the difference of professional assumptions and local realities. There are always professional incompatibility that emanate from community developers background of varied orientations that could explicitly or implicitly hinder easier assimilation with the local people and challenges implementations of development interventions (Biddle: 1966:7).

As an aspect of social capital, religion institutions have role in promoting interventions. For example, (Ferraro: 2004:337-33) suggests that by strengthen people's sense of group identity and belongingness, religion encourage people to taking part or engaging in other non-religious activities too. According to him, religious institutions have upper natural authority that allows them to infringe power on their members that range from purely religious to other secular matters. This attribute of religion contributes specially on interventions in societies where people are attached to long tradition of exercising religion not only in terms of its spiritual dimension but also in other social matters. As witnessed in case of this study, for example, religious institutions have contributed in changing environmental health behaviors based on their positions or social powers.

Significance of local institutions and values systems in interventions primarily lay on reference to communication. Researchers consider social capitals as central component of interventions because they allow effective communication by creating and expressing knowledge to both project implementers and the beneficiaries.

2.2.1 Health Intervention and the Need for Social Capital

As to literatures, there are contributions in health interventions. The most common contribution of social capital in the health intervention is provision of resources that use for taking actions in health interventions and enhancements of health by transferring skills, and by controlling health behaviors of individuals within group. In the following few paragraphs, an attempt is made to present the contribution of social capital in health interventions.

Berkman (2000:74) justified the benefit of social capital based on the notion that health behavior is determined more by collective social identities than by rational individual choices. The most obvious association is that social networks provide various forms of social support that may influence health by functioning as ‘buffering factors’ which is to mean collective influence. They pointed out that influence of peers on health behaviors in health promotion is the most common element of social capital, and social participations provide opportunities to learn new skills and confers a sense of belonging to one's community that in turn enhances health interventions.

John (2008:4) identified three social resources in relation to their contribution to social services that include health interventions :(1) obligations, expectations, and trustworthiness; (2) information channels; and (3) norms and effective sanctions. Doing for others establishes an obligation for the others to reciprocate, thus influencing actions. Information constitutes an essential basis for actions; one vital form of social capital health interventions is the potential information embedded in social relations. He also point out that existing norms also have powerful effects on actions through the rewards that can be expected if one adheres to the norms or by effective sanctions if one does not follow the norms. People can be willing to make resources available because of internalized norms to behave in a proper way, or because of solidarity with people whom one can identify as sharing a ‘common fate’. Moreover, these norms of reciprocity make people willing to avail resources for health interventions.

Thus, community rich in social capital can be successful in influencing health intervention because high levels of social capital in local communities can influence health through the spread of healthy norms, facilitate faster and wider diffusion of health information and knowledge, which thereby affect health interventions. Environments characterized by trust, participation and mutual support are believed to constitute ‘health-enabling communities’ who can support health-enhancing behaviors.

The following sketch is a model that the study conceptualizing the link between social capitals and health that comprise elements of social capital, attributes, consequence and the way how these promote health. As it is indicated in the Table below, there is direct link between attributes of peoples' social capital and health promotions or interventions that can have a direct contribution in health interventions. The contents of the table are taken from Marlin Eriksson through modification in context of the study.

Table 2.: Sketch of Conceptual Link between Social Capital and Health Promotion

Contents of Social Capital	Consequences	Enhance health
Internalized norms	Social support Social influence Social control	Access to support
Group solidarity	Social participation	Cognitive skills, belongingness and life meanings
	Access to health service	Material resource
Reciprocity		Exchange to behavior Status and reward or social exclusion

Source: Modified from Marlin Eriksson(Erikson : 2010 :57)

2.3 Environmental Health Interventions: The Need for Ecological and Cultural Approaches

As far as environmental health intervention approaches are concerned, different researcher stress the need of ecological and cultural approaches basically because environmental health problems are multi causal, and they are no merely a biological process to be treated through medications.

According to scholars who advocate ecological approach to human health, health interventions must focus on the wider context basically because of some reasons. It is believed that human is

not merely attached to the immediate causation of diseases, but there are different causes that contribute for it (Mecelroy and Particia, 1998).

Proponent of the ecological approaches underscore the need for collective behavioral changes as far as environmental health interventions are concerned rather than mere medical treatments. For researcher like Planet (1999: 37-58), the causation of health problems are multispectral or there are wide ranges of causes that pose risk for health and in most instances they are diagnosed but not cured. Diseases patterns are linked to the life style of society. Disease or illness is social than being simply medical in nature. Medical treatments are not adequate specially in alleviating those problem related to the behavior of people. They recommend the need for collective behavioral changes because health problems are more cumulative, long term and not amenable to curative measures that can primarily achieved through prolonged awareness creation teachings that provide skills which would enable long term protection of diseases.

In contemporary period, emerging health educationalists and public health workers have oriented their focus on the fundamentally subjective issue of bringing change of behavior. Researchers who advocate this thought made association between behavior and disease. That is why they offer a good deal of attention both to community and individual as they believe that health problems are hardly been solved through medications.

As presented by medical anthropologies health and illness are liable for cultural interpretations, and the ways of intervention need the curiosity toward culture. In this regard (Helman, 2000) presented that environmental health interventions need understanding the cultural conception because health or illness have varied interpretations that transcend the formal usage that is confined to the physical human body. Mead (1977) as cited in Good (1987) suggests that health or illness primary are the result maladaptive interaction with population, environment and culture. Culture influence people perception about their life pattern which includes their health and the successful ways to deal with it first need understanding the various attachments of culture and health; and deconstructing it through various mechanisms (Katz and Wallace, 1974).

What can be articulated from the above presentation in relation to environmental health and its intervention? It can summarized that environmental health problems are basically emanate from people's maladaptation to their environment. Maladaptation can be explained in terms

developing no curious interaction people to their environment; and as result maladaptation problems can majority solved through consciousness creations with in people according to their modes of cultural adaptation with their environment.

2.4 Health Intervention Strategies: The Ethiopian Experience

Every county across the globe has designed and implemented its own environmental health interventions so as to addresses various communities at the grass root level. In Ethiopia also there are health intervention approaches that are set to address local health issues including environmental health problems.

As an articulated strategy program health extension program (HEP) was introduced to provide an improved quality package of health services at the rural level. This set of health interventions encompass, among others, basic and essential preventive and curative services with a special focus on mothers and children. Thus, all maternal and child health interventions would be addressed through the HEP. Several cadres of community health workers were trained and deployed to provide these services to households.

Close observations reveal that it is out rightly top-down approach. Everything been designed at the top and thus, the community at the grass root levels merely consulted as an after taught.

The health intervention strategies has some problem in terms of both professional and structural challenges in which the later is beyond the control of the trained professional health workers. With regard to health workers the problem could be seen items of career track transfer and leave of absences of HEWs (local level health workers). In structural terms issues such as long distances complemented by poor transportation and poor communication are fundamental challenges encountered by trained health workers and it partly if not completely explains their in efficiency and effectiveness in the delivery of their expected services (Yemane, et al 2007:1-3), (Yayehyirad et al 2007:1), (Samuel Girma, 2007). Thus, their effort in reaching the community at the grass root levels and mobilizing them to a better common end is far from being that much encouraging. But this does not totally discredit some roles they have been playing.

Furthermore, the other key predicament that emanates from continuous relation between the beneficiary community and health professional is the culture shock faced by the latter groups. While delivering their anticipated services trained health workers made interaction with the

community and are expected to respect local settings. However, as it happened they are some problems in their implementation of the health interventions to work in the local settings. In most instances, they lack some behavioral and cultural attributes to assimilate themselves with the local settings and render their professional skill. This means that owing to its being a top-down approach and culture shock health professionals faced, made the health intervention strategies in Ethiopia culture insensitive (Ambachew, 2011).

In few paragraphs above, it is made clear that the health intervention approaches in Ethiopia has inherent problems in terms of local level health workers professional problem and culture shock while delivering their health services. Given such drawbacks, what might this study convey? It transmits a message to use local resources and participant them in health intervention approaches. As it is detailed in this study, local resources such as social institutions, connection and work groups, among other things provide smooth communication and provision of material and labor services that can hardly can be achieved by other agencies. As it is also made evident in the discussions, participating people helped achieve people's self-initiated solution for health problems.

2.5 Health Intervention: The Study Area Experience

In the previous discussion an attempt is made to present the trend of health intervention of Ethiopian context which depended on government sponsored top down intervention approaches. As presented in the following few paragraphs, the health intervention strategy of the study area depend on the use of values, norms and culture sensitive health promotion techniques which is mixed- up approach of both governmental and non governmental agencies.

One mechanism of health intervention approaches is the use of community dialogue where people from different social sects take part to deal about their environmental health matters. As would be detailed in the discussion part of this study, there are recurring community meeting or dialogues where community members, health professionals and community based health workers dealt on environmental health issues.

Another health intervention approach is culture sensitive health intervention strategy where the people are sensitized through different techniques to develop conscious detachment from environmental malpractices. As it would be detailed in the discussion part, the culture sensitive

health intervention mechanisms are used to cease peoples' environmental health malpractices through continuous techniques of behavioral deconstructions.

Another strategy applied in the study area is using of the community resources and values or norms. The environmental health intervention strategy has used local institutions, personals and socials networks. The use of local resources helped get access of local people without significant culture shocks, wider peoples' coverage and efficient maintenance of the environmental health practices. A groups of people, such as community based health workers, Health Model Households have used in making access by government-based health professional toward the community. In similar manner, social networks and institutions that have long persisted tradition of making social cohesion were used in introducing and spreading environmental health issues to the wider community.

Chapter Three

The People and Settings of the Study Area

3.1 People, Language, Religion and Socioeconomic Settings

Hadiya are linguistically part of the highland East Cushitic, constitute one of major ethnic group in southern Ethiopia. After temporary settlement in North Eastern Ethiopia, they moved toward southwestern direction and settled in the South Western part of Ethiopia (Braukamper :1973 :35). Braukamper indicated that Hadiya were active political power particularly in North Eastern Ethiopia in between 13th and the 16th century. Hadiya speak the Cushitic language family which further divided into different sub categories. The Hadiyisa language more specifically categorized under what is identified as the Eastern Cushitic Groups (Bahiru, 2001).

Hadiya is constituted under administrative system of SNNPR (Southern Nations Nationalities Peoples Regions). Geographically Hadiya is located in South West; and shares borders with several zones like Guraghe, Silte, Kembatta Tembaro, Dawro, Wolayta and Alaba Special Woreda in SNNPR and with Oromia Region. The area inhabited by Hadiya has area coverage of 3542.66 hectare (CSA, 2007).

The socio-political organization of Hadya is characterized as egalitarian. There are autonomous units where important sociopolitical decisions are made through council of elders whose power emanate from traditions. A close observation of social structure suggests that are three identified social classes.

As to religion, Hadiya known to be Muslim. Historical documents referred Hadiya as Muslim state emerged in Ethiopia in 13th century. Since the 18th century Hadiya practice a religion synchronized with other Cushitic religion called *Fadano* that remained to be the dominant religion until near past.

The religious attachment of Hadiya seems to have embedded in their culture since time immemorial. The attachment of the Hadiya to Fandano was the dominant practice both in secular and religious realm and it was the feature of Hadiya culture. According to the myth of *Fandano, Waa'a* whose manifestation is black (blue) sky is considered the Supreme Being, who after creation of the world retreated from active governance of the earth, leaving it for subordinating

Spirits who are responsible to mediate to the people. According to the myth of *Fendano*, *Waa'a* is the sky and the sun and the moon are his eyes through which he observes the earth. There are special categories of patron Spirits for individuals; *Jaara*, predominantly for men, *idoota* for women and *wariiq'a* for person of important ancestor that include elders. (Braukamper: 1973). It is with such backgrounds that in Hadiya culture both God (*waa'a*) and *lommana* (elders) are respected and accepted in both spiritual and secular realms.

3.1.1 Socioeconomic Condition and Social Work Groups

Hadiya practiced mixed farming economic activities since time immemorial. Among Hadiya cattle in particular have vital importance not only in economic terms but also in social terms. Livestock, for example, until recent had been used as currency for the payments in cases compensations and still have as symbolic or ritualistic value in dispute settlements like homicide cases (Ersido, 2007). Cattle is the source of social prestige where individual in the culture honored merits which is performed when herd owners possess hundred and above (Moges, :1994). Such long attachment of Hadiya to their cattle made them live with their cattle since time immemorial, and as would be explained in the discussion part of this study, is one of the common challenge as far as household environmental health issues are concerned.

3.1. 2 Social Controls, Self-help Associations and Social Work Groups

In Hadiya social setting, there are different institutions and social work groups or social connections who implicitly or explicitly take part in community mobilizations. Thus, description below would give an insight on how local values or norms and social connections, which are discussed in the body of this study, contributed in enhancing the environmental health behavioral changes.

A *mine* is a social and political unit that comprises nuclear and extended family that holds husband wife/wives, children and unmarried siblings. Husband is the head of this institution, and he is the supreme bodies in managing the members and making peace. As Hadiya is a Paterlineal society where male have unprecedented power and their decision in matters is bending. Basically, the *mine lommana* is concerned on domestic dispute among children, and wives esteeming from various factors and in managing related issues under his jurisdictions.

The second level is *Naffara*, which literally can be interpreted as outdoor, or environs. In broader sense it meant surrounding. The head, of *Naffera*, called *Neffar lommancho* is chosen based on

merit such as wealth and knowledge of Hadiya's *serra*. *Naffar lommana* are concerned with keeping peace and mobilizing people through different associations like *Ikub*, *Idir*, and other group work associations like *Geja*, *Dawa*. *Neffar Lommancho* is basically concerned with disputes over the agreement and use of communal resources, such as grazing land, communal land, forest, rivers, and when problems arise in relation to general social issues such as weeding ceremonies, and denial of debt or any sort of breakage in agreement.

The middle institution in the hierarchy is *Mollo*. This institution comprises of those inhabitant composed of consanguineously related households or homesteads who form independent home, and it might extend to 10 households. The leader, *moll Lemmancho*, is an elected as long as he is the member of a particular *mollo*. Besides to personal qualities of being orator and gracious, he is expected to be knowledgeable in verifying the kinship relations and various principles governing traditional law (*serra*). The fundamental role of *mollo lommancho* is keeping the peaceful relation among members through different means.

The highest institutions are *Ghicho* and *Girra*. The leaders are elected based some attributes like personal and wealth merits. The wealth merits include having accommodating and attractive home environs that are suitable for holding meetings. The personal abilities are based on knowledge about societal values and culture, and qualities like assertiveness kindness, wisdom, speaking skills, wealth, arbitration and managing capacity in his families, and life long experience and generosity of his wife or wives (Albachew and Samuel, 2008). They made an ultimate decision when issues that need communal decision among clans and crisis such as mass conflict arise in condition of propagating new phenomenon or ideologies that require mass mobilizations.

Besides the hierarchical institutions, there are personalities who are dignitaries; and are respected in Hadiya social settings. They are called *hirragano*. Because of their wisdom of prophecy, they have direct role in different social matters. There is a myth that *hirragano*'s wisdom of prophecy transfers to the *Anjencho* descendants. It is a tradition to respect and abide to the *hirragano* suggestions and decisions because of religious attachments that wisdom of *hirragano* transferred from God (*waa'a*) through *Ayana* (spirit) to the *Anjencho* descendant. *Hirragano* are believed to be

those foreseers who can tell the future fate and warn people who deviate from the social norm (Braukamper, 1973).

Ostracization, (*yayima*), curse (*dumcha*) and oath (*hidro*) are ways of social pressure or means of social control. *Yayima* is a total refusal to share good interact with wrong door. An ostracizing man excluded in different context. Wrong doors refused to share fire and other utensils in daily lives that is not only necessities but also a manifestation of friendship and solidarity in Hadiya social milieu. In serious cases, ostracizing may extended to the refusal to help of burial places in time of death and exclusion from social associations or self-help organizations which has serious impacts. These all mechanisms are the pillar of the Hadiya social power that urge people to abide in social obligations in both intermittent and permanent social activities.

As to informants, in Hadiya tradition, there are bulks of expression that show the significant of the effective of curse as means of social control. Oath is final sign of affirmation that people made to confirm for both the innocence of wrongdoing and to be deterred from future involvement in social deviances. The words of oath are words of utterances that affirm conviction or obedience to decisions. Hadiya often say *hidre bissoane*, which literally meant oath eliminates. In Hadiya social setting, the fear of oath seems to have embedded within the culture which is manifested in their usual scrutiny to respect social obligations than involving in oath makings.

There are also rule that govern the people. *Serra is* orally transmitted norms, values, and practices. One feature of the *Serra* is that it is transmitted through socialization. In family children learn what to do and what is expected of them as male or women through songs, proverbs and related expressions. As adulthood, people learn through different social interactions and thereby internalize principle. *Serra* is a means to interact in daily lives of the people. For any serious deviance, the people use an intermittent meeting where deviants get final execution that range from advice to punishment.

There are long persisted self-help work groups among Hadiya tradition who often engage in community-based works. *Gija*, *wojio*, *idir* are an examples social work groups. The prevalence

such groups works in Hadiya social milieu, as it is manifested in this study in many respect, are the bases of successful implementations of community-based programs because they have long persisted tradition of creating social ties.

3.2 Description of the study Site- *Bobicho*

3.2.1 General Descriptions

The site of this study, *Bobicho* is found in *Lemmo worda*. Lemmo worda is located in between 722-745N latitude and 3740 38E longitude and covers an area of 38,140 hectare. Of which 91% covers *woina-dega and* moderately undulating land and 9% *Dega* or high altitude areas. The *woreda* is found in the capital of Hadiya zone, Hosanna town, which is located 232 kms away from Addis Ababa in South West direction. *Lemo woreda has 35 kebeles*, and has a total population of 118,578 (CSA, 2007). The total area of the Woreda is 494km² and the crude population density is 240 people per sq. km. Hossana serve as the capital (Lemmo Worda Agricultural Office, 2012).

Due to living condition and status of the people living around the village and the relief structure, *Bobicho* was hazards dwelling. The structure of the land has a down cliff nature where during rainy season water used to drain from all direction carrying garbage from different directions that in turn pollutes and produces bad smell to the area.

Bobicho bordered with different villages: in South East to Hosanna, West to *Gora Tume kebele* and in North to *Mesbira kebele*. *Bobicho* is one of the 35 *kebeles* that constitute *Lemmo* woreda under the current administrative structure of the government. *Bobicho* has cluster of settlements which can be called villages and recently all area of the sub clusters or villages that include *Hakmura, liygnaw Endara, Mehal Endara and Tachignaw Endarta*, are governed by village chief who represent different sub tribes of Hadiya.

The peoples livelihood depend on farming and crafts. They produce cereal crop like wheat, sorghum, maize, and root and root plants supplementing it with the products of false banana (Enset). Furthermore, they perform simple commerce stoke near to the streets of the Hossana town as street venders and some agriculture products like potato, cabbages, tomato and red paper. The crafts men are artisans who depend on selling of pottery for their livelihood.

One of the main in action in the *kebele* is education and educational access. Although there are primary and secondary schools in the in the *kebele*, the awareness and enrollment rate of the people have been one of the slowest to adequately address environmental health issues. The lower education exposure lowered the people to have environmentally sound practices that is been affecting their health.

3.2.2 Environmental Health Conditions

The land structure, the nature and living condition of the people and their educational conditions were the fundamental factors where the hygiene and sanitation condition to remain severe for long. Due to the down cliff nature of the land and the absence of well-structured drainage canal or sewerage, the area was unhygienic because of waste dumping by people from the Hosanna town dwellers.

Most people live together with their cattle facing the smell and contaminations. Moreover, due to lack of education, people has no concept of constructing toilets instead they use open defecation which in turn contaminate with string water, which they consume, and with their body and house utensils when they collect a fire wood from the forest. Close observations depicts that animals live within house with people. In houses, there are the classes of people and animals that are only separated by gangs of tree where the side of animal dwellings has few pours for animal waste sewerage purposes. As it is the orientations of Hadiya, there are culture attachment to justify the contagious dwell of people and animals within a house. For example, for the sake of security i.e if animals live in separate room with men then, animals believed to liable to predators and thefts. And animals warm houses in time of cold weather condition and have aesthetic values because of positive attachment of animal sniff to man. Despite such culture justifications, however, zoonotic diseases were common according to official reports of health posts in the *kebele* and community based health workers.

As to observations and informants presentations, people usually used to dump wastes in haphazard manner wherever that looks suitable for immediate dumping of wastes. According to health extension informants and visit to the different village, people often dump wastes in home yards and open field areas, farm fields, near to streams and streets that are commonly visited by people. Every household have home yard vegetation area near to the dwelling houses and large farm field in distance places from house surrounding. People often dump most of leftovers and

animal wastes in home yard and some solid wastes in farm fields. Whenever informants are asked as to why they used to dump wastes in such areas they provide answers which has cultural orientations. For example, it is believed that dumping wastes in farm field would fertilize the land and increase productions. As FGD discussions with health extension workers and community based health workers, communicable diseases such as, diarrhoea typhoid and fever were common. While there is clear health problem of dumping of wastes in home surroundings, the cultural interpretations depict the environmental mal adaptations that are developed through time only by considering the material benefits of wastes.

Another environmental health aspect that makes the environmental health situation of *Bobicho* vivid is the way that human wastes are managed. As to key informants, people used to defecate in open fields, bushes and jungles that are drained to the rivers and streams. According to informants, it was common for people to use areas that can hamper the wellbeing of the environment, and the health of the people. As to the narration health extension workers, people who can not go far to farm fields often used to defecate within house environs. According to the presentation of informants, defecation in home yards had been posing chronic health problems because, as to the local tradition, home yards are the places where basic consumption foods like *ensate* are produced, daily food saffs are taken and needy people such as women, old aged and children are spent most of their times.

From the presentation it is clear that environmental health situations of the study area is one environmentally unhealthy because of environmental malpractices. After the environmental health interventions by both the governmental and non governmental organization (EECMY), there appeared changes in health behaviours that range from waste handling to use of pit latrines. White flage is hanged in *Bobicho* which symbolizes the observable improvement in environmental health conditions. Governmental health organizations hang white flags in *kebeles* who scored better environmental health conditions to maintain the continuity of the changes and encourage others.

Chapter Four

Findings

Introduction

This chapter discusses the findings which are based on the data gained from field work at *Bobicho kebele* of Hadiya Zone. In this chapter, discussion is made to explore the environmental behavioral changes and their outcomes on the health of the people. There are shifts from the use of open defecations to using pit latrines, from haphazard waste managing to curios burnings. There are changes in housing that the people used to live with animals in contagious environment to having separate and clean houses that are used for various home routines. In this chapter, an attempt is also made to discuss how some culture sensitive health promotions or health intervention strategies are able to change the peoples' health behaviors; and how institutions, networks and values of the community enhanced environmental health achievements. In this regard, exploration is made on how community health dialogues, social networks such as *Geja*, community based health workers (who are non-paid voluntary health workers) and informal connections enhanced the environmental health achievements.

4.1 Exploring Sanitation and Hygiene Related Behavioral Changes

4.1.1 Having Cleaner Houses

Rural villages of *Bobicho* are past abandoning their previous attitudes and belief systems towards household sanitation, particularly in response to a newly gained awareness about diseases. Even if few of the houses in villages were built using corrugated iron sheets, most houses remained traditional houses made of grass, which is according to most of my informants, are suitable for their health and that of their animals. According to the informants, the farming villages have made a change in terms of handling water in the houses, making separate houses for animals and furnishing household utensils.

For generations the villagers used to follow routine house water handlings that were riskier in terms of health of household members. Children and girls went to river using traditional pot, which is open towards its mouth in order to fetch water. Water is often accumulated in a big pot (*haracho*) in houses and used for extended time. One of my informants in the village told me the reasons of water accumulation:

We have few water sources in our village. Moreover, it was difficult for children to fetch water from the springs because in most instances it was crowded with many people using from this sources. It was not clean during daytime as animals drink from it. As result, children went to the springs usually early morning to collect as much water as possible to be accumulated and used for an extended time to avoid water shortage in home and labor needed for water collection. Fetching water is not the only role expected from the children nor do they fetch it at every morning. They support us shouldering home routines and have to go school as well. So we used to accumulate water in haracho to use it for a long duration of time. We wash haracho before accumulation but not always. (Informant 2, see appendix one in list 6).

According to most informants, water collection and utilization in the house got more risky in terms of child labor and family health. Since the *kebele* is exposed to large scale out migration to other countries and urban areas in the country, increasing burden of house routine are shouldered by aged parents. Apart from this, exposure to water born and other sanitation problems have become sources of diseases in the village. So most members of the village are curious to adopt culture sensitive environmental sanitation packages that have been promoted by health extension workers in the *kebele*. The new awareness is helping the people to improve the quality of water collected and used for various purposes at the houses.

The community members in the *kebele* are making sanitation sensitive measures in their living houses in terms of handling water that are fetched and accumulated for various purposes at home. The shift in their behavior about water handling at home is evident in the steps they take before they drink water. At the first place, water is collected by using *jarikan* or newly modified *woyeka*, instead of the old open jars. For drinking purpose, they filter through traditionally made clothes to avoid it from solid materials. In other words, filtrating water through clothes enables one to control alien particles to float over the clothes (*woyeka*) and such practices are believed to have preventive role for health body. Before filtration process, neat water cup was used to take drinking water from *haracho* or *jarkans* (They also wash *Haracho* or *jarkan* before accumulating water in them. Informants believe that the whole process would ensure creation of safe water for drinking and other activities.

Another aspect of shift of health behaviors related to handling of the household utensils. Traditionally people disorderly put some of household tools. Household utensils that serve as immediate daily need were placed in *Kosha* (separated kitchen with in dining room). Those utensils that may not be used for immediate purpose were placed in traditionally made tree ladder called *Kot*. Now each household is using shelves for various utensils. Each utensil is washed before is put in the shelves. By so doing they could managed to improve neatness of the utensils that are to be used for food preparation and consumption.

Change in health behavior is also manifested in having separate houses for different purposes. Traditionally, the villagers, for example, used to dwell in a single house along with their animals. The same house is used for guests, cooking and to perform other activities. To many people these congested houses were culturally considered as normal condition. However, in terms of sanitation it is unattractive. The people gained the latter insight from the health promoters in their villages. Thus, almost every members of the study area convinced to adapt to the new health realities. Now most of the members of the *kebele* have constructed at least two houses aimed for various functions. They have built separate houses for animals dwelling and cooking purpose by using the local materials that are less costly.

As mentioned above, there were strong cultural associations between animals and people as it is believed that living with animals have no health problem. Instead, there are culturally constructed meanings that justify the benefit of living with animals. For example, living with animals warms the house and thereby keep the household temperature and protect their health. Some of the informants also presented that the security of animals would be endangered, as they may be susceptible for predators as well as emergency problems during night. Such perceptions and beliefs about animals along with their economic benefits were some of the hindering factors for separating animal dwellings from that of humans. The persistent beliefs however are being shifted in favor of new practices, which is less risky in terms of health. The new practices prioritizes the threat of diffusion of animal diseases such as the zoonotic (disease that might transmit from animal to human beings) by grassroot community based health workers who have played their own role in behavioral changing processes among the community members. The photos below, which are the houses of the health model farmer, can give an insight about scene of separated houses in the study area.



Photo 4.: The Scene of Separated Houses for People and Animals, (Source: Photo by the researcher, 2012)

The sanitation sensitive practices of the villagers are not confined in managing of internal houses. As one can see it from the outside looking of the houses, much efforts are invested to beautify and cleanness of the house itself and its environs thereby managing the waste carefully. People take all necessary measures in order to minimize the reproduction of insects and rodents because to the villagers houses are more than simple living places. Houses symbolize not only social status of its owner but also the extent of neatness of the house seen externally. Such messages can easily be inferred from the writings in the doors or pictures in the doors. As expositing significance of houses and its environs, the photo below might illuminate the situation of study site.



Photo 4.: Scene of Clean House Environment (Source; Photo by the researcher, 2012)

4.1.2. From Haphazard to Curious Waste Management Practices.

One aspect of behavioral changes in environmental health practices is observed on waste management. As comprehended evidence let us see the following narration which was taken from the FGD session at *Hakmura* village of the *Bobicho kebele*.

Our wastes are many; we do have household byproducts such as food debris, food leftovers, animal dung, grasses, ashes and other. We previously used to dump all wastes in surrounding areas nearby our home, in farm field and even in water sources such as springs and rivers. But these days we throw away liquid wastes in latrines which exist at near distance in every home, and we burn solid waste in waste pits which are prepared for such purpose. In addition, we use the ashes of the burnt wastes at our farm fields as fertilizer.

In order to observe the issue, I made short period visit to the health model household, and I found that the household members' burn solid wastes at daily base, and dump the ashes in farm fields as fertilizer as indicated in the following photo.



Photo 4.: A women burning waste in *Hakmmura* Village of *Bobicho*(Source: photo by the researcher, 2012)

The convenient evidence of new mode of waste handling systems are manifested in people's massive engagement in preparing waste collection pits, as seen in the photo above. The people in

Bobicho kebele are able to achieve 100% coverage in possession of waste pits from null in 2007 that is the time that health intervention was introduced. The following figures present such massive participations of the peasant *kebele* to improve their environment.

Table 4.: The Trend of Waste Post Facility Coverage in *Bobicho Kebele* as of 2012

Year	No .HH	No. of waste pits	Percent
2001	401	0	0
2002	404	100	25
2003	405	361	89
2004	408	408	100

Sources: Compiled by the researcher from *Bobicho* Health Post, 2012

In terms of collecting the household solid wastes, the people used to dump haphazardly around the doors and within house compounds. But these days, they have been using locally made baskets (*Satera*) to collect wastes and dump it in to the waste pits which are available in every household.

The intense improvement in handling of wastes was also observed in social institutions like school and churches. In previous time, wastes in these institutions were handled without much care. In most cases, wastes were left in classrooms, sport fields and in recreation centers. Observing what their parents are doing at home and gaining additional insight from health promoters, the learners are playing crucial roles in collection of solid wastes at the school or church compounds. Every student and participants is now conscious to put any solid waste in plastic pots prepared at different sites of schools and churches. In addition, the collected wastes are burnt on specified areas. The following photo is one of plastic pot made for waste collection at *Hakmura* primary school.



Photo 4.: Plastic Pot prepared for waste collection in *Hakmura* Elementary School at *Bobicho kebele* (photo by the researcher, 2012)

As to FGD discussant, there are developed or formally organized waste cleansing campaigns (*Koshasha Maseweged Zemecha*) where the people are organized in to different groups in different divisions and each cleans all important sites through periodic circulations. In schools, there are two waste cleansing days in that all school community i.e. students, teachers and other supportive staffs are involved. At wider community level, the environment is being cleansed at every three months.

4.1.3 From Open Defecation to Latrine Usage

Remarkable changes in terms of the environmental health intervention in *Bobicho Kebele* have brought quick behavioral changes towards latrine usage. Even if there was little latrine coverage in various villages of *Bobicho*, as most of my informants recalled, many of the members of the *kebele* did not possess latrines. Instead open defecation was commonly practiced under bushes and near home yards. This section devoted to present the changes of the environmental health behaviors that are observed in terms of making and using of latrines at home. Public latrines were also constructed at different locations of the *kebele* for communal usage. In most case, simple and less costly materials are used for the construction. The following table shows the degree of expansion and coverage of latrine in the *kebele* from the beginning of environmental health intervention in 2008.

Table 4.: Trends of Latrine Coverage in *Bobicho Kebele*

Year	Number of population	Number of latrine	Population–latrine rat
2001	1686	164	10.2
2002	1718	414	4.14
2003	1744	424	4.10
2004	17 68	433	4.07

Source: Compiled by the researcher from *Lemmo Woreda* Health Post, 2012

At communal level latrine construction was conducted through social coordination in each village (got), which constitutes about thirty households. Each got has one communal latrine that were used collectively under the control of one household who are believed to be well in health performances. More than fifteen communal latrines are available in different feasible sites of the *kebele*. Apart from individual and communal latrines, there are latrines in places such as market centers, schools and churches, which experience relatively high concentration of people.

The construction and management of latrine in these institutions are exclusively under each institutions. What makes these sites unique is that the institutions not only managed to increase the number of latrine and its efficiency but they have become prime agents in propagation of behavioral changes of the environmental health.

For a far more examination of the existence of latrines, which might give clue of the extensiveness of the existence of the latrines, different questions are raised ;for example, the people are asked questions like what kind of latrine exists in your area, the respondents replied that there are two type of latrine i.e. is pit latrine and flush latrine. Pit latrines are those formed from different slabs. Sitting bases and the holes are made of slabs , and they are constructed from less costly materials. They identified as ‘the latrines of the poor’. The flush latrines are those latrines that the setting bases and holes are made of clay materials; and as compared to pit latrines, they have comfortable settings. This type of latrine exists in few health model households who are well in terms of their economy and health status.



Photo 4.: A Scene of Latrines of Communal and Private Types at *Bobicho Kebele*(Source: photo by the researcher ,2012)

The left latrine is an example of communal latrines. Most time they are made from light materials and a local pot (*jarican*) is hanged over it. As compared to the latrine in the left which is an example of latrine of individual households, communal latrines have relatively qualified pots because they are secured. The pot hanged over the communal latrine meant that any passer bayer must wash his hand after latrine by using the water of the pot, which is filled by people in the nearby *Gox* (cluster of people under the village). The pot in individual household meant that every members after latrine usage oblige to wash their hand which otherwise leads for punishment.

4.1.3.1 Utilization of the Latrine

As it can be inferred from the above discussion, there are different establishments of latrine almost in every needy sites and this can show the extent of the changes in terms of physical establishments of waste disposing practices. To elucidate a far more condition of changes in terms of latrine utilization, some questions, which can ignite informants to respond about the actual usage of the latrines have raised. I raised questions like how do you use the latrines? how frequent do you use the latrines? And how do you manage the latrine cleanse? These questions that were raised deliberately helped to assess the condition of people's usage of the latrines.

As an aspect of managing the latrine in most instances, the people use ash. Ash that is mixed with water has dual purposes; in one hand, it prevents the latrines and its environs from bad smells and on the other hand, it prevents flies from seating on the latrine surroundings. It can also avoid bad smells by diffusing bad smell to good. Traditionally it is believed that ash can avoid bad smells. The people also use soil to dump on the holes of the latrines. People used to dump soil on feces that remained on the latrine after use, and thereby avoid bad smells around the latrines.

There is swift of behavioral change in usage of latrines. People now do not want to defecate in open fields as they did traditionally. Such change in attitude can be inferred from the account of one of the informant:

Now we do not tend to defecate at open field. We have developed shame that prohibit us. When we are away from our village for different social occasion, we use communal latrine. If we lack communal latrine at near distance, we ask owners of individual latrine to use their latrine. Even our kids want to defecate in places we assigned to them (informant 4, see appendix, one list 6).

The practical behavioral changes are also observed in terms of hand washings. It is observed that the people wash their hand whenever they use latrine just on spot using water and soaps which are placed around the latrines. While the physical availability of the establishments are one evidence to the prevalence of the behavioral changes, some feature about practical usage also need to be assessed so as to grasp the fuller picture of the changes in relation to latrine utilizations.

For children, who cannot walk, especially under five children are made to excrete in small holes prepared for this purpose in home surrounding and in some instances they made to defecate in traditionally made containers which are prepared for them.

A far more changes of latrine utilization behavioral changes are also depicted in the use of old aged people the latrines . As presented by FGD discussant, suitability factors encourage them to use latrines. Latrines are found in short distance as compared to the places they used to defecate

previously. They used to go far distances searching secured places, which is not suitable specially in night time.

For man, refusing to establish latrine may provoke sense of shame up on him, because it implies that he is unable to do something. Another consequence of refusing to construct latrine and preference to open defecation is a form of deviance towards community concerns. Men's inclination to defecate at open field, their resistance to social participation and their refusal to establish latrine put themselves and many other at risk of sanitation problems.

For women, open defecation is more embracing. As women were largely defecate at nighttime in absence of toilet, they run the risk of various sorts. This may suggest that they are willing to adapt to latrine quickly. Moreover, as local norms dictates woman did not frequently engage in open defecation at daytime as it would threaten her self-esteem. As has been argued above, neglecting shame norms increase the risk of marginalization from the social membership.

As far as gender dimension of latrine utilizations are concerned, there are evidences that aptly present the existence of the practices that are manifested in women use of latrines. In fact, there are problems women to use latrine for some culturally embedded reasons that hinder them to use latrines. First, there is a shame factor, for instance women do not dare to use latrine in day time when family members could be around home compound, as observed in the field, they use it in sunrise and in dawning where there is low people accumulation around home. A more practical changes of behavior also observed in hand washing behavioral changes. People have been washing their hand at critical points such as after the use of latrine, before preparing meal and after washing children's body

A closer observation in field visit shows that the practice of hand washing seems to become habitual. As evidence let us the narration of FGD members:

We do have communal control system at home. Family members curiously control each other and dictate those who are not washing their hand appropriately. We often report to the father or elderly member of the house. At community level, we have people who were assigned solely for controlling our practices of hand washing. They advise and punish

individuals whenever they fail to wash their hand after using toilet, mismanage waters and other latrine facilities.



Photo 4.: A Woman washing her hand after using Toilet at Village of Bobicho (Source: Photo by researcher, 2012)

As one main component of the social institutions where many people spent much time at daily bases, assessment is made on the peoples' use condition schools latrines based on both observations and interviews. The results indicate that there is a shift from haphazard defecation in bush and forests of school compounds to the use of different pit latrines constructed at school compound in much more consistent manner and in organized ways.

Since it is unmanageable to explain the condition of all schools of the study site, an attempt is made to present the condition of one elementary school, and this by default can summarize the condition of other school latrine practices. In this regard, the narration of one of key informant (see appendix one list 11) can suggest the all fact:

Previously we used to defecate in open field, in bush and forests that are found around school compound and some bare hole, which have no any kind of coverage. In most cases student fear to use in these places because they are exposed for external look and create shame. Now we have been using latrine that are constructed in our school compound. We do have separate latrines for students and other staffs. There are jaricans with water and

soaps inside the latrine rooms which are prepared by yesedate committee (literally, waste cleansing committee.).

While the narration of the student informant is sufficient condition that can show the prevalence of tradition of building latrines in school compounds, more examination is vital to see the magnitude of the expansions. As to informal interviews, observations, and school archives, there were no pit latrines before 2008, which is the time when massive intervention was started to takes place, but this time there are at least two separate latrines in every school that are to be used by students and the rest of school community.

In order to instigate response on the condition of latrine usage in school, questions are raised for the school communities in the *Hakmmurra* elementary school. The students presented that they have been using the latrines in different occasion that are suitable for them. For example, they use in early morning when they just entered to the school compound, in break times and at the end of classes and in some dictating conditions while they are taking class by taking permission from their teachers. Other school staffs presented that they have been using latrines in any necessary and suitable times.

Another question that aimed to extracted information on practical usage of all sects of the school community, both female and women group of students and some staffs are asked questions like what conditions encourage you to use the latrines, how do you use the latrines? The responses show that both women and men have been using the latrines because they found it more suitable in terms of, for example, keeping privacy and material facilities that are essential to be used after latrine usage. The facilities in these points, among other things, are having of latrines with separate rooms for female and male students, and the existence of hand washing materials and water and soaps which encourage them to use the latrines.

In relation to the shift of behavior in terms of usage of the latrines, one of the female key informants presented the following response and this can utterly explain the overall students' behavioral change in using the available latrines:

We have been using our school latrines since its establishment in 2001 E.C. We women specially have been using the latrines because it is secured place to urinate.

We women need latrine not merely for defecating our wastes but it is beyond this. As women, we do have some natural reasons that attach us to use latrines.



Photo 4.: School Latrine in *Hakmura* Elementary School, *Bobicho*, (Photo by the researcher, 2012)

In the sub sections, it is presented that the people have developed behavioral shifts in the environmental health practices, for example in terms of ceasing old practices of using open defecations, haphazard waste management's; and creating healthy houses and environs.

4.1.4 The outcomes of the changes

As it is seen from the discussions, the people have developed behavioral changes in their environmental health practices. The change in the practices, among other things, has brought improvement in terms of the health of the people. This sub topic is thus devoted to discussion of such changes based on empirical evidences and data that is gained through different techniques.

Because of the changes in environmental health practices, the implication of the environmental health ranges from wider environmental health coverage of the environmental health establishments to usage of the establishments.

Table 4.: Trend of Children Death from 2001 to 2002 in *Bobicho Kebele* as of 2012

Year	No. Child population	No. Child death
2001	764	5
2002	7001	1
2003	478	0
2004	533	0

Sources: Compiled by the researcher from *Bobicho Health Post*, 2012

As it can be inferred from the above table, there is remarkable reduction in children under five deaths, which has a direct relation with the environmental health. And this implicates the impact of the changes in behavior of protecting their home. The table could also give glimpse on the significance of the improvements and the subsequent changes on health of the people.

The environmental health improvements have brought changes to women wellbeing. There are reduction of women school absenteeism and increase in enrollment. As to the extant narration of key informants and FGD sessions, there are some basic reasons for this. For example, establishment of latrine provided safe environment and this help them avoided boringness to go school and stay for an extended time in school. As externally observed in school of the *kebele*, there are latrines that have separate rooms for men and women to use.

At household, the improvement in environmental health has increased the productivity of women. After improvements in environmental health as, presented by women FGD discussants, their business remarkably decreased. As it the tradition of Hadiya, the women previously busily engaged in house routine including keeping their house environments, but now the swift or changes of the environmental health through the involvements of all household members, reduced their workload and save their time and thereby help them to engage in other home and social issues.

An expansive improvement in environmental health practices also brings significant reduction in the occurrence some diseases that are casually related to environmental health problems. For example, besides to extant narrations concerning the reduction of the diseases, there are figures that show sharp decreases of diseases and improvement in health. As evidence, let us see the following occurrence of some diseases that have close connection with environmental health problems. As it can be seen from table below such diseases have remarkably decreased.

Table 4.: A Trend of Communicable Diseases in *Bobicho kebele* as 2012

No disease cases in type	2001	2002	2003	2004
Dairrhoea	744	652	374	152
Typhoid	621	486	311	198
Acute fever	258	160	76	57

Source: Compiled by the researcher from the *Lemmo Woreda* Health Post, 2012

In Few presentations above, it is made clear that the people have witnessed considerable improvements in their health which were commonly affecting their health and wellbeing. After health interventions and subsequent changes in behavior of environmental health practices, the people are able to manage environmentally associated health problems that were affecting them only because of failure of sound management of their environment.

4.2 Approaches Employed to Bring about Sanitation and Hygiene Related Behavioral Changes

So far, presentation is made on the achievements of the behavioral changes of the environmental health practices that range from personal hygiene to community health. In this section, discussion is made on the approaches that are employed to bring about the achievements of the behavioral changes. In bringing the behavioral changes, two main components are employed. One is culture sensitive health intervention strategy which is technique of sensitizing people through different mechanisms and the other is usage of local resources such as local institutions and social connections. And this section entirely concerned on analyzing the culture sensitive approach and local values social connection, institutions and norms toward promoting the achievements of the behavioral changes.

4.2.1 Culture Sensitive Health Intervention

Culture sensitive health intervention strategy is a method of changing peoples' environmental health perceptions through different techniques. People are exposed to examine the effects of hazards by themselves and look for solution. Among different of the techniques employed in bringing about the behavioral changes, some are discussed here for sake of managing data. Different analogies and techniques like visiting waste dwellings and cases are presented in the discussions.

Before we analyze the specific techniques of the culture sensitive health intervention approach, let us first see the features of the approach that make it efficient to bring about the behavioral changes. As to observation and key informants, the approach has three basic features. The first emanates from the quality of community facilitator in the intervention process. Community facilitator who are from the community, know details of community health behavior. They are not mere facilitators as can be associated to conventional participatory approaches rather they are 'natural' (known) to the people. Second, the culture sensitive process is one that allows people to examine environmental health problems by themselves which in turn creates consciousness. Among other things, the approach has to following attributes.

- Allow self examination of once own environmental health behavior,
- It is conducted in once own language and interpretations.
- By sensitizing different sects of people, the approaches enables to change environmental health behavior of wider people.

Now, let see the detail of the techniques as to how they bring about the environmental health behavioral changes. As explained above, there are some specific techniques of culture sensitive health intervention approaches. In the following, few paragraphs I have discussed some of them that are arranged in alphabet.

A) Visiting Hazards Environment

These are techniques that the community made to visit waste dwellings like open defecation area and deliberate imposition of which eventually enabled them develop bad attitude toward waste. Through such process of visiting, community improve their attitude and improve their

environmental health conditions. In the process, people are made to visit waste areas and participants are obliged to talk or discuss about the sense of the waste areas. Outsider who could be any facilitator, rise questions to those visitors who should answer both in group and individually with a purpose of imposing shame on the participant. Moreover, such dialogue continues until participants feel ashamed of their haphazard waste handling practices.

As to my informants, shame-visiting techniques change environmental perception of the people because of cultural interpretations. As to the local tradition, shaming has two general meanings. One is secret shaming that is done without public look and has little disgusting, and another is public shame that can be uttered in the face of public. This kind of shaming is highly disgusting and has the power to impose pressure on deviation. It is with this background that people decide to improve their sanitation condition when they were imposed or exposed to shame.

Let us see one case which is taken from the village of *Bobicho* about visiting open defecation areas. The case shows the way in which people change their behavior because of influences in the shame visiting processes.

Case 1: 'shame visiting'

This is a tragic visit of community members, NGO workers, and government officers to the areas where people most commonly used to defecate with the aim of imposing shame or disgusting on community dwellers. In the journey, representative community workers, elders and outsiders made a meticulous observation to the shits and its hazards feature in the open defecation area. In the visiting process, the outsiders ask the community members self-challenging questions which outright create a shame feeling with the community participant. For example, they asked them questions like whose shit is this? Who use these defecating areas? Do you think this is a good environment? ; And urge them to answer the questions and openly talk each other. After long process of such disgusting dialogue, the community members feel shame; murmur each other about their ignorant use of open defecations of their waste in forest, bushes, and open field.

B) Mapping the Waste Dwellings

This is an exercise of drawing simple map of the dwellings that can show the connection of wasteful area to the dwelling environment with an aim of creating self initiated understanding about effects of wastes. In such exercises, people are made to draw a map of their own village or *Kebele* by locating the link between wasteful areas and clean area and the links of flow of wastes. In the process, people are made talk each other about the overall scenario of the effect of wastes that flow from waste areas to good environments. Mappings and talking continue until people really realize the effects of wastes or the ignorance or careless handling of their environment. In most cases, people make collective decisions to improve their environmental health practices by understanding the real problems of hazards environ on their health.

As to key informants and my personal observations, through the mapping exercises people change their attitude because the exercise creates self disgusting and clear consciousness of the effect of waste areas as they interlinked with healthy environments.

C) Calculating the Medical Cost of Environmental Health Problem

This is a technique whereby people are sensitized through continuous questioning about the effect of waste in terms of expenditure that can be spent for diseases that are related to unhygienic environment. Each individual or household were asked about how much shit is produced per week, per month or per year. Individual difference in human waste was identified. People were also asked how much they spend on health treatment and medicine that are related to diseases as well as the place where they live in case the area they live is close to open defecation areas. In the session of medical calculation, participants made to discuss about the medical cost they would spent for possible diseases that could come by wasteful environment and made to be exposed for self-questionings. Through repeated such exercises, people often improve their environment practices by realization and regretting of the impact waste in their economy.

One of health promoter key informants in the *kebele* emphasizes the process prioritize the experience of the participation and make them leader of the conversions. One of my informants (see appendix one list 3) who involved in the calculation dialogue presented the significance of the dialogue as follow:

Every one of us in the community sees the dirty and shit in villages. It is causing health problems. But we only get awoken to the problems when by outsiders we are made to look at and analysis the cost effect of wastes in detail. We had never felt such an embracement ever when we were asked to calculate the amount of feces produced per day or per week by the health promoter. We used to make open defecation. Yet we were not conscious of the magnitude feces can pose a health problem. We did not feel anything about it. However, after log we now realize that it is our feces that cause sickness to our children. Now we realize that open defecation causes lot of problems in our lives. During the conversion, we made decision to establish and use latrines. I respect the decision of our community members since everyone in this village think for our common problems. It is shameful not to be abided by the decision of the community members. Now I have my own latrine.

In addition to the above narration of informants, one case of medical calculations in which I involve in the process of exercise might illustrate the reasons as to why such exercise of people self examining of the cost that come with diseases of their own feces help for the behavioral changes. Let us see the overall scenario of the case so that we can catch the concept in the technique.

Case 2

In the case, some community members together with a facilitator seat in a place of open defecation. While participants are taking their place, facilitator prepare the session of the dialogue. The facilitator hang blackboard on the tree which is put on the middle of the participants, and prepared markers. Every participants need to have marker by which they are to write on the blackboard which is hanged over in the dialogue session. Then the facilitators (who seat at the middle of the session) raise questions that out right about feces that, as a community, they produce. The facilitator raise question repeatedly both individually and in-group, and urged them to answer every bit of the question with a motive of inflicting emotion. After asking question like how much feces can be excreted individually per day, per week, per

month, and per year, and how much of feces can be excreted by community as whole. Then the facilitator, let the participant calculate the amount of feces they can excrete and write their result on the blackboard.

Participants by standing from their seat one by one write in blackboard the amount of feces production that they calculate. While they are doing this, the rest of the participant or dialogue members challenge them by asking self-disgusting questions about the huge amount of feces that they, as member of the community, produce. The questioning in dialogue continues almost for two and half hours until all participants come to realize the effect of waste in their economy in real term.

When the debate get hot and participants become more immersed in the discussion of the dialogue, I raised the same question that the facilitator is been raising to the participant who are at my nearby. At first instance, none of the participants was willing to respond to my question, by considering my question as odd because as I am an outsider, they did not expect such outright question from me. After brief talking among themselves, they just respond to me two important ideas in relation to the dialogue. That are: (1) In the dialogue, we become aware of the cost effect of wastes which we were not curious of it. (2) The tragedy of conversations in the medical calculations which is conducted by outright calling of feces by our own language really pose disgusting or shame up on us which made us to give attention about wastes not only in terms of health but also in terms of money expended for health that are related to unhygienic environments. And these are reasons as to why we usually are initiated to improve our hygiene and sanitations after medical calculation dialogues.

It can be inferred from the case, the efficacy of such dialogue based in its power to create consciousness about the effect of wastes not only in their body health but also in their economy which in turn affect their overall well-beings.

D) Making analogies

One aspect of the culture sensitive health intervention approach in the behavioral changing process is the making dialogue with people. The dialogues of analogy enabled people to change their behavior by inflicting consciousness about the effect of waste on their health. In this section, discussion is made on cases of analogy which are employed in the environmental behavioral changes. For the sake of managing data, few cases of techniques of the analogies such as feces –fly and food -shit are presented herein.

I Feces - fly analogy

This kind of analogy is made by questioning people about the health effect of fly and food connection that are ignorantly or passively understood by the people by using different dialogues. In the process, some external body bring feces from open defecation area and fly from somewhere, and while participants are meticulously observing the scenario, the outsider sinking the fly on feces and raise question for the participants who are supposed to answer carefully every question both individually and in group. Questioning dialogue or communication continues until the outsider able to convince or creates consciousness about the health effect of fly- feces connections. Through continuous dialogue, the participants become curios of the health effect of fly and feces connections and eventually change their attitude.

The following dialogue, which I come across in the village of *Bobicho*, is a good example. In the dialogue, some community members decide to be careful of fly and feces after engaging in a dialogue of fly and feces analogy.

Case: 3 Both are Bad

Community Health Workers	Participant (Some Community Members)
<i>Kuk mericho?</i>	<i>Cirro</i>
What is this (having feces at hand)	Feces
<i>Binbie xorrone afurroyoniye?</i>	<i>Afffuroko</i>
Does flies cannot sit on feces	It does

Cirrone'e afuruki Binbe'ehan meroko?

Where does flies can go after sitting on
the feces

Hegege hunden Meroko

Our entire environment
on our foods, waters, and home

Hegegone afuruke be'nb'e Gibe aboyoniye ?

Fly which sit on your environment
shall not bring diseases

Ebeko

Yes, it does really bring diseases

Binbe'e afforobeyone'?

Man'e shomeliemo

So why you used to defecate in open field

Where flies can easily sit down?

Binbe' ka Cirrika

Hawo konxinsa lekomoyo

We usually don't know seriousness of flies

Kee leseg'e Me'esteken sewitoko'o ?

What you decided to do in future

Binbe'e eka cirrike'e haw'e keba agaako,

Kelesegine shunine awaxinomo

Now we realize the effects of flies and feces
and decided to have latrines in our village
from this time on.

According to informants, such cases of fly-shit analogy enabled them to change their health behavior because outright expression about feces in the dialogue imposes bad emotions about wastes, and direct observation of food and fly made them notice the effect of waste and insects on their health.

II Food - Shit analogy

One of the culture sensitive techniques that are used in health behavioral change is food- shit analogy. It is mechanism aimed to change the attitude of people by exposing them to mix of food and flies. In the process, any outsider like community health facilitator, bring feces from open defecation area and local foods to people in public areas, and mix the food and feces repeatedly, while people are observing him. Moreover, through such continuous process, the community developed negative attitude toward waste.

The following case, which I come across at village of *Tachghew endare*, could be good depiction as to how such analogies promote the health behavioral changes. In the case, some community members are exposed to observe the food that is mixed with feces and develop bad attitude about feces.

Case 4: Observe the Mixed Food

This is an exercise that the villager are made to directly observe food and shits which are put together and have bad sense of it, which eventually made the people to develop negative attachments to feces or shit. In the process community health facilitators collect raw shits from open defecation areas and bring it to the crowd of people who are gathered for the observations. Community health facilitator by standing at middle of the crowd, put the shit near to a fresh food, which immediately attract flies from the nearby environment. In middle of the observation participant feel disgusting, and began to react to it.

At the instance of the observation process, the participant did make little disgusting, and bad feeling about the food and fly which are opposite features, as food is something to be eaten ,and has good feature where as feces are wastes which are to be excreted outside the scene of human look. As the hot dialogue continues between the health facilitator and the participants, the participant eventually began to talk each other and magnify the issue while some of participant openly talk each other as to why there were not conscious of the bad features of feces which they only more sense of it only when they make out right observations. In the middle of the discussions, participants

showed bad feeling on the feature of the visiting area. For example, they vomit, and show sense of desperation through murmuring and releasing out their saliva. When the community health facilitator mix-up the food and the shit in face of the crowd, some of the participants rush out from the session to escape from the bad sense of the mixing. The community health facilitator urges the people to be persistent on observing the ugly features of the feces which are mixed with food. After two hours observation and dialogues, the crowd dispersed, after making some decision. For example, they decided so as not defecate in open fields, and to construct latrines and other waste disposal materials which use for managing wastes.

III Water - Feces Analogy

Through these analogies, people have made to face the effects of waste by making direct observation to water which are mixed with feces. In the process, people have made to observe and make reaction in continuous dialogues. In addition, in most cases people develop negative attitude toward waste after engaging in such analogies. The following case can be a good example to show as to how such analogies promote health behavioral changes within the community.

Case 5: We are Made to Drink Contaminated Water

This is a case that some community representatives are urged to drink contaminated water. In the process community based health worker bring pure water in cups and then while participants are observing, he take pieces of his hair, and mix it with water and then put it in to the cups of the clean water ; and ask /urge participants to drink the water which is mixed with feces. In meantime participants show disgusting things, some of them vomit and some others rush out from the dialogue.

As to my participation and key informants, culture sensitive health intervention approaches enhance the people environmental health behaviors through different ways. By allow people self-examination of their own environmental health malpractices and make collective decisions toward the malpractices; it deconstructed environmental maladaptation of the people. In the

continuous sensitizations, people become conscious of the effect of hazards environment and make collective decision to improve their environmental health conditions.

So far, we try to discuss the place of culture sensitive health intervention approach in bringing about environmental health behavioral changes. Now let us give attention on the roles of local resources and values in health promotions.

4.2.2 Local institutions, Social Networks, Norms and Values in Enhancing or Promoting the Environmental Health behavioral changes

4.2.2.1 Community Participation: The Case of Community Conversation

Community conversation is health dialogue that held with community members who represent different backgrounds such as religion, educational status or level and gender. It is monthly meeting of elders, religious leaders and community based health workers to make debate on the environmental health issues and look for solutions.

The identified feature of the community conversation is that every participant can make a two way dialogues with participant themselves and the health workers, who used to sit at of middle surrounded by participants and this help them avoid shame among them and encourage out right discussions related to their health. As native to the community, health promoters, encourage the participants to talk by use the local language, and this motivate participant to manifest their health practices that they considered as taboo.

The participants in community conversation, besides to their personal internalization of health issues, they disseminate to rest of the community through social agencies in formal and informal ways. For example, participant of community conversation usually made discussion in detail especially when they come across unique environmental health issues. They also diffuse and encourage people through various institutions such as religious institutions and funeral places.

In most cases after participants in the dialogue, the participants are highly fruitful in disseminating health information because, as they are from legitimate local institutions, the community is receptive to their messages and initiatives. The recruitment of religious persons helped to further enhance the acceptance of health messages. Furthermore, the participation of

representatives of community anchors (community institutions) help them to mobilizes wider section of people after meetings in community health dialogues.

Besides to different institutions who take part in the community conversation, there are a consultative forum among the *kebele* administration and representatives of various community institutions such as religious institutions, *idirs* and other associations which allow them to discuss and understand the environmental health problems. Environmental health committees within these institutions encourage or mobilize their institutions through various teaching advocacies. Thus environmental health ideas spread to different parts; and thereby health ideas rich to wider community.



Photo 4.: A Sample of Community Conversation at *Bobicho* Health Post (Source: Photo by researcher, 2012)

As FGD discussion with community based health workers, community dialogue is instrument in bringing changes in environmental health practices for some reasons. The community dialogue as a public conversations, allow a face-to-face confrontations with in the participants who often help to make collective decisions and a rigorous debates. It is also a recurring meeting of per week and short as needed; and so allow follow up and curiosity of issues. In this regard, community conversation is more fruitful in changing the behavior of the community as compared to the traditional community health teachings in Ethiopia. In rural Ethiopia the mechanisms of public health education is conducted in health posts by trained health

professionals which often hinders the efficiency of the teaching basically due to unable to reach mass people and weak communication (Alula, 2008).

As practical evidence that can confirm this fact let's see of the information of key informant of voluntary community health worker (see appendix one list 4)

'Community conversation is changing the people's behavior of health because of some reasons. Basically, the members who take participation in conversation session are acceptable and can influence the people because they are model in their health performance and other social matters. We use our own language and talk openly with participants with any issues which were considering vital to instigate health behavior. We also take an extended time when issues become serious to reach consensus. As we all are people living together, we really know each other's psychology.'

People who refuse or fail to accomplish the decisions in the community health dialogue are punished in what is called community action day. It is per week meeting of the representative community members that use to counter check the improvements of hygienic and sanitation conditions. In the dialogue every people of the *kebele* reports his environmental health status to participants in a weekly base in their respective villages. An individual or a household who shows progress in their environmental health condition rewarded and those who lagged would take punishment that can include exclusion from social relations. And by so doing, community health dialogues control deviant behaviors of the environmental health practices.

What the above few discussion might convey? It can be deduced that community conversation is one of the main means that is been enhancing people's health behavior because of two interrelated reasons? One is the participants in the session often acquire consensus based solutions from a participatory conversations; and another is dissemination of information to the rest of the community.

4.2.2.2 Community Based Health Workers: The Bare Foot Doctors

Community health workers are non-paid health worker who are chosen from the community because of their better environmental health practices. They are people assigned to promote environmental health practices in the community.

As to health promote key informant (see appendix 2 list 3), community based health workers do have some qualities that enable them to promote health behavior by understanding health problems and cultural and social interpretation of the community. The health workers among, other things, for example, are selected based on the following criterion:

Read and write (have adequate education) which helps them to make formal reports whenever necessary,

- Self reliant(have own job),
- Live and work in the *kebele* (help to easily assist village members and good understanding of community needs).

Besides to the qualities mentioned above, they are also from different social groups such as old aged, women, young and religious people to address environmental issues to all sects of the community. In the visit times, all members of the community health workers went and taught people in accordance with their background. For example, women teach about household handing systems while school children taught their peers in schools as to how they keep their hygiene and their home and old aged community based health worker teach their peers in their dwellings or recreation areas. Religious people teach environmental health ideas in accordance with their religious view in their institutions.

Every five to ten families have one voluntary health workers who collaborate with governmental health workers in high times of campaigns and daily activities. Health workers visit every household at daily bases and try to change the perception that the community hold with regard to their sanitation. They visit to all family or households and teach by using real examples that can be understood by the community. They teach people, for example, by showing the wastes of dwellings and its effect to their health.

As to my informants, for every five houses, one community based health worker is responsible to mobilize resources that are to be used for health implementations. The community based health worker is the one who demonstrated better health condition compared to the rest of the community and controls every five to ten family. The head community worker collects money and other material resources whenever he is demand and meticulously supervises every household who are in his controls. By doing so, the community based health workers promote the environmental health by controlling people who deviate from expected health standard and mobilizing resources.

As to extant narrations of key informants and my observations, community based health workers have some important attributes to promote the behavioral changes. Member of the community based health workers know specific environmental health behaviors of the community. Know every routine environmental health matters of households, and very cautious in addressing it. The case that I come across at *Hakmura* village would be a good depiction. In the case, community based health worker has challenged household member to improve their household sanitation and changes their attitude.

Case 6 A challenges to Home Sanitation

Health promoter

Household member

How do you manage your home utensils? *Just we put in our Kosha(a separated room with in dwelling house.*

Do you not know that animals such as dogs and chickens enter to the Kosha? *We know that they usually enter to our Kosha .*

Do you not know animals touch house utensils? *Yes, we know that they can reach to our Kosha.*

Do you no know that animals such as dogs and chickens bring contaminates to house utensils? *We really know, but most time we are not serious.*

Do you not know that feces (cirro) do cause diseases? We know, even we have been

Suffering from it.

Do you not know that you have money problem? We really know.

Do you want to suffer from diseases? We never want to suffer

So why not you manage your house utensils well? We will do it from this time onwards

We will put house utensils in shelves

Therefore, community based health workers contribute to the environmental health behavioral changes because of their ability to know or identify environmental health problems, easily mobilize human resources that are needed for health intervention and promote social controls with in community.

4.2.2.3 Social networks

One of the approaches in prompting the health behavioral changes in the environmental health intervention is use of social networks.

One of my key informants forward the following cultural concepts as embedded within the people that urge the people to engage in community work. Whenever people fail to contribute for social works they are liable for the following conditions, and this force them to become more open to take part in community-oriented activities.

- An individual will be excommunicated from basic social services such as sharing of fire and household utensils,
- An individual will not be provided with social service in his time of work such as seasons of harvesting and funereal occasions,
- An individual shall be cursed by the high elders of the community whose power believed to have immediate and long-term effect both in the current generation and in the generation to come.

The social pressure come through some social work groups and social networks are one of the drives behind the environmental health success. *Idir* (sealf-help association) and *Geja* (peer work group) are essential for community mobilization. *Idir* serves as channel for communication as they gather every weekend to put some fixed money for different social occasions including the environmental health practices. The collected money used for times that money is need for environmental health promotions.

Before the beginning of the formal sessions, *idir* members discuss about health issues. Member who failed to keep well his environment is liable to monetary punishment. For example, a household who is not able to constructed pit latrine around his home is liable to pay 50 to 100 Ethiopian Birr. As an important social association where formal and informal ideas are exchanged or aired, *idir* members get new ideas and became more cautious of their own environmental health conditions. Members of *idir* contribute fixed amount of money that are be used as money source deemed necessary for health activities to be expended for health as needed.

Geja is peer work group where members share their experiences each other as they exchange labor each other. *Geja* is social work group in Hadiya social milieu where group of member exchange material and labor resources in moments of massive works. In vast environmental health improvement process, *Geja* members constructed the physical establishments like pit latrine and waste material collections for those needy people who cannot afford to possess. *Geja* groups constructed communal latrines by using the local resources such as *Bombo*, eucalyptus and Bushes. The *Geja* is responsible to those environment health activities that demand mass mobilization such as community waste collections which are conduct at every three month through a circular ways of cleaning environment.

Another community social networks who take role in the environmental health activities are what are called artisan. Artisans in the villages are among key players in promoting the practice in the environmental health. Artisans are gifted in cultural songs and expressions of the people and were motivating the people during communal sanitation works. They have great skills of expressing culture to boost construction as they enabled people to persistently involve in new modes of environmental health practices. Traditionally such people are identified as catalysts. They can influence people, because, for example, they do have intense social connections and

great rhetoric power which enable them in surge information in daily bases to the community fellow through their house to house visits. In their move from houses to houses, they often chat about matters of sanitation issues and in their discussions, people learn about the solution of their environmental health problems.

Another group of community resources are Healthy Model Households who were used as encouragers in the whole implementation process. The role of these people primarily is provision of morale which enabled other people to be initiated to engage in sanitation practices. In most case such healthy model households are those people who showed progress earlier than other members of the community. As result has a social recognition and acceptance to influence other members of the community, they show their home and share their experience as to how they managed to get progress in their sanitation practices. Their success and their social status and subsequent social positions made them model to others who want to learn from them. Through continuous visiting and encouragements, they initiate people to follow their ways and improve environmental health situation. In this regard, healthy model farmers in FGDs discussion shared the importance of visiting healthy model households as follow:

At the beginning we were told to construct latrines and to clean our environment, we were reluctant. Few people in nearby village took immediate action to achieve sanitation practices. Their village is getting cleaner when we compare with ours. It is clean from feces. We did not have latrine as they have. They understood the benefit of having latrine in household after visiting what their work and learning from their experience. We have great encouragement from the modal farmers.

Another important aspect of community influence come from 'ye ar committee' ('fece committee'). The members of this committee like that of health model farmers are people who were selected based on their performances in sanitation practices. Their number differ from village to village ranging from five to seven and constitute young, adults and women. Their primary role is visiting households and activities associated with sanitation usage and problems. They share their experiences and encourage other who excels in the practices. They also have power to put social pressure on those who are not well in keeping the expected standards of sanitation of the villages. Moreover, in some serious cases, they influence people who become

careless to keep their environment or who are reluctant to improve their environment clean and use latrine at their household by excommunicating them from social relations. In some instances, such people were made to pay money that ranges from 20 ETB to 50 ETB to the committee. Besides, to the monetary punishment, village health committees induce environmental health ideas through dramas.

After discussion of some recurring environmental health problem, the village committees made social dramas that promote negative attitude toward wasteful environments. In the dramas, people are made to participate and develop bad attitude about hazard environment. Different kind of dramas that expose the effect of waste are presented through local language which eventually able people to change their environmental health behavior. In the drama, people often made to observe tricky issues with regarded to wastes and develop bad attitude about it.

4.2.2.4 Local Institution, Faith Based Organizations, and Community Based Health Committees.

Different faith-organizations and other social institutions have contributed a lot to the health promotion. The community members believe and respect these institutions. The religious elders of different faiths such as protestant, orthodox and Muslim got basic sanitation training from the health workers and teach their respective members to adopt the new practices. Leader of one of dominant faith organization in the area (Evangelical Mekane Yesus church in the *kebele* (see appendix one list 10) shared his view in the following way:

We persistently teach our church members about environmental sanitation, often in church meetings. We ordered our members to keep their environment clean, inspiring them by using messages from the Bible like ‘keep you heart clean and of your body’. In most cases people are willingly to receive our messages because most members have grown through the Bible principle and they are submissive. In the Bible there are words, which directly present the need to manage once own feces. For example, when we teach people by using the Bible word which state that, ‘do not let your feces in the roads but dig hole and bury it, every members honestly accept us and massively engaged in latrine constructions.’”

Different Social groups and social institutions have played key roles in mobilizing the villagers so that they can achieve environmental sanitation objectives. The use of these by the health promoters and workers has a great implication to the spread of the practice in the area. As far as the role of elders and some social work groups are concerned, their roles are in assimilating of the health professionals with the people, mobilizing resources and facilitate implementations.

In most cases, elders serve as medium of entrance between community and formal health workers in the implementation process of the environmental health practices. As explained in the backgrounds of this study, elders in Hadiya traditions have value and attached respect and have a say on social matters. They do have respect within the social systems. As to FGD discussion with elders, they are responsible in reception, and transmission of health messages within the community. Trained health professionals often transmit health message to household heads or elders because in most cases they are considered as 'an outsider'. Health messages are informed to elders. The elders based on their knowledge they gain in various participations and informal communications, teach family members. As explained elsewhere in this study, chief leaders collect money and material staffs necessary for the implementation of the activities.

Another aspect of the community institution that served as community anchor is Schools. Local primary school in the *kebele* is moving force for the propagation of the idea of environmental sanitation to the youths and the community members who are nearby the school. The school committee, which consists of teachers, students and parents, mobilize students to the sanitation practice and sent them into the villages nearby the school on weekly bases. Through their campaign into the villages, the school children share the basic knowledge they acquired in schools. At the school compound, the students are usually motivated through cultural dance, poetry and dramas adapt sanitation and hygiene issues. The committee in discussion with students' parents punish students who do not devote to their personal and community hygiene. Thus students are serious in considering personal hygiene at home and school. The school also gives basic education to adults in their villages that incorporated the idea of sanitation.

Other community resources who are used in the health intervention are a group of people who are identified as what are called 'natural leaders.' They are people elected from the community for enthusiasm and responsibility in the environmental health promotions. By taking new information from governmental health workers, they teach households or families, and

disseminate environmental health issues that they gained in their engagements in local level health meetings and committees. Because of their consistent advices, they often called as ‘community consultant.’

Thus, local institutions enhance the environmental health by reintegrate smooth communications, breaking of cultural barrier that might occur in the intervention process, expand environmental health issues to the wider people and adaptation of environmental health with the community.

4.3 Challenges and Opportunities for Sustainability of the Environmental Health Achievements

Introduction

In this last subsection of the paper a discussion is made on the understanding of the condition of sustainability of the environmental health practices that are reported in the discussion of the above sections of paper. Although the environmental health achievement can be considered remarkable, still there are rooms of challenges because of some problems which emanate from both local people and outside agencies like NGOs that are engaged in the health promotion processes.

4.3.1 Opportunities

As it is explained in the body part, the existence of physical establishments of the environmental health practices does not fully guarantee the reliability to continuity of the sanitation practices, but also issues on the usage and controlling system matters. To maintain reliability of the sanitation practices, the community has developed mechanisms that promote safe use and management systems both at family and community level. For example, at family level elder members of the houses have responsibility to control their family condition of environmental mal- practices. There are also community levels controlling systems. For example, as explained elsewhere in this paper, all *kebele* members were organized in-group of five households; and these controlling systems are being encouraging people to constantly perform the environmental health practices.

An important aspect that depicts the sustainability of the practices relate to people action i.e. related to the adoption of the some technologies that are inherent in environmental health

practices. At first people, acquired knowledge and skill that help them durably involve in the practices. For example, in continuous process of mobilizations, there was technological transfer. For example, the people adopted how to construct latrines, made waste pots, and baskets based on their local technology.

The long process of culture sensitive intervention, health sensitizations and intermittent community health dialogues that participate wide community section, help people developed a sense ownership of the environmental health achievements within the community. This is been encouraging the continuity of the environmental health practices because it provide sense of ownership which in turn encourage people to curiously keep their environment and consistently perform the health practices that they have achieved.

One important thing that is been helping for the sustainability of the environmental health achievements is the community controlling systems of the practices. As a whole there are two controlling mechanisms that are been used in sustaining of the environmental health practices. One is public shaming and the other is collective control through social pressure. Individuals or groups who spotted as reluctant in their environmental health condition are made to utterly disgusted by the community openly in daily meeting places and such disagreement force wrong doors to improve their sanitation conditions. For example, in public shaming process, people who fail to handle his environment made to stand in face of public and urged to expose their problem; and the public shout and warn on the wrong doors.

However, if the wrongdoers persist to continue in his/her deviance, the community excommunicates them from social relations. Wrongdoers, for example, excluded from such social connection such as group coffee ceremony, social group works (*Geja*) and other social relations. Wrongdoers will be ostracized, as Hadiya's tradition, ostracization (*yayima*), as stated in the background of this study, is the extreme state of punishment that individuals cannot tolerate. Such collective pressures have been turning back those people who fail to be consistent in their environmental health practices. Moreover, this gives a room for the continuity of the practices.

Beyond the organized ways of public controlling, people also have been mentoring the environmental health achievements through collective manner. Not every member of the

community can pass mal-practices of environmental health. Field observation and key informants narrations confirm that the community has developed a tradition of self-initiated controlling of misconducts of environmental health. As example, let us see the following narration of one of key informants (see appendix 1 list 4)

I found two men defecating in farm field. First, I advise them to use communal latrine which is found near to the farm field. But one of the men refused me and continued in defecating in open fields. In one moment, I found the man on spot while defecating in the farm field; and I caught his trouser and shouted. In that moment, a crowd of people from the village come and began to punish, and then a community elder shouted and ordered the man to shave his feces with his hand and dump it in to the nearby communal latrine. But the man begged the elder and the crowd; when he confirm that he will not engage in using open defecation in future, they let him go.

Another aspect that illuminates the sustainability of the environmental health practices is, its responsiveness. The vast environmental health practice was the immediate drive of the people. Although there was resistance in early phases of environmental health implementations that was only because of the newness of the issues, but close field observation shows that most people intrinsically need to engage in the practices. As extant observations in field visit, the environmental health intervention seems to have responded peoples' demand, and; embedded in peoples' culture and initiated them to become curious to continue and maintain the environmental health practices.

Another basic issue that enhanced sustainability is the inclusiveness of the practices. Scholars maintained that sustainable community participation can be effective when all members of the community take part with the issues. Different sect of the community were involved in different sorts of community sensitization and mobilization process. As the part of the community, people such as voluntary community health workers, elderly representatives who are both men and women leaders of the *kebele*, funeral ceremonies have taken part in various culture sensitive practices such as shame visiting, mapping of open defecation areas; and open dialogue through

community conversations. In addition, such popular participations, which address all aspect of the people, help to adopt health ideas within the community.

As presented by FGD discussions with representative of elders, voluntary health workers and community health promoters, their participation in various culture sensitive process help them to acquire health knowledge and information; and disseminate to the rest of community members by using various agencies like religious institutions and social association such as *idir* and funereal meetings, and different occasions like sessions of community conversation.

As it is seen in the above discussion, the health behaviors tend to sustain because of collective social pressures, social controls and peoples' consciousness to respond to environmentally bad situations. People are adherent to social norms because they are more trusted, and culturally valued and have role of creating social cohesion. From this point of view, it can be said the sustainability of behavioral changes of the environmental health practices are attached to the community social values and norms that operate in the tradition of the people.

4.3.2 Challenges of the Environmental Health Practices in terms of Sustainability

Some of the threats of the sustainability of the environmental health practices are lack of follow up and scarcity of materials supplies. For instance, the community often claims reconstruction of old latrines and to maintain their physical buildings .As to field observation, there is a higher demand on the part of the community for construction material supply. As it is stated in the body part, people are the source in the constructions of the environmental health practices but lack of material establishments are in danger. Hence, although, it has witnessed in the body, there are remarkable tradition in environmental health practices, lack of material supply from any outside agencies have been affecting the continuity of the environmental health achievements.

Another aspect of the challenge is related to extended control or supervision of outside or funding agencies. As explained in the above discussions, the funding agencies for the implementation of the environmental health practices were both NGOs and governmental organizations. Based on their financial superiority, these agencies have been exerting interferences in people's implementation processes. For example, the agencies conduct a stiff control. Such repeated control from funding agencies is been challenging the continuity of the

environmental health practices by eroding the sense of ownership of the environmental health establishments and practices which are already adopted by the people.

Thus, it can be understood that the behavioral changes of the environmental health practices are majorly challenged by the outside agencies like NGOs. As one of the agent in the health intervention, for example, EECMY show morale superior and extreme control in terms of assisting people in the implementations of the health practices which is been affecting the continuity of the environmental health achievement by eroding sense of ownership within people.

Chapter Five

Conclusion

The study community, (*Bobicho*) demonstrated behavioral changes of environmental health practices. Unlike the previous traditions, there are vivid changes in terms of awareness of some environmentally sound practices. For example, there are a sharp shift in terms of using pit latrines against long persisted tradition of using open defecations and meticulous use of waste disposals.

The improvement in the environmental health changes have brought visible outcomes that are manifested in terms of reduction of communicable diseases and health compared to the previous status. For example, in terms of reductions of communicable disease and the children death and women workload reduction which are believed to be clear indicators of environmental health status, have shown sharp improvements. In Hadiya tradition, women and children have the burden of household duties that include making healthier environment, and as result of improvements such loads has remarkably declined. There are also reduction of children death, which is manifested in terms of health post visiting reduction of women and children. Besides to the implication in terms of health, there are changes of having attractive environment, which have sound aesthetic and health values.

The major drive for the achievements of the vast environmental health practices or behavioral changes are use of local norms and resources, and application of culture sensitive health intervention approaches. The culture sensitive health intervention approach enabled the people self-awakening or consciousness that eventually helps them change their health behavior and practices. The culture sensitive approach enabled the people to develop a conscious negative attitude toward older environmental health perceptions and involve in new mode of the health practices. As far as health interventions (environmental) are concerned, this study can implicitly shows the fact that community sensitizations that depend on conditioning people to what culturally known good and bad feature is efficient mechanism if immediate and collective behavior changes in environmental health are needed.

One of the local norms that contribute for the health achievement is community conversation or dialogue among the people where model health farmers and other concerned community

members take part. This enabled community members to duly engage in environmental health practices. In contrary to the traditional trend of public health teachings in rural Ethiopia that depend on teachings in health posts, the participatory approaches such as community dialogue applied in this study, among other things, are inclusively conducted through the local language and recurrent; and allow local people outright discussion of their health matters which in turn create room for consensus based and applicable solutions.

A wide array of social work groups and connections such as *Geja*, *Eder*, *Wijjo*, demonstrated unique significance in terms of disseminating health information to the wider community and engaged in labors activities and become source of material and monetary provisions in the construction of physical establishments, and a social control by punishing individual who engage in environmental malpractices. *Geja* is work group who are meant for cooperating in times of work in Hadiya social milieu is responsible in construction of communal waste disposal establishments. In similar vein, *ider* who is a group of people of economic cooperation and has multiple explicit social roles in Hadiya social setting, among other things, enhanced the health achievement by providing monetary and labor resources. These work groups based of their time-tested wave of informal contacts, disseminate health information to the community which often are not reached by trained health professionals at local level. Given the contribution of community based health workers to the environmental health practices, it needs the integration of these work forces because they provide efficiency for the environmental health achievements. For example, by creating smooth communication and by addressing environmental health matters of wider community with less cost and effective time, they enhance the environmental health achievements. By so doing, they became a good work force, which demands their incorporation to the main streams of the environmental health intervention strategies.

There are voluntary community based health workers such as health promoters and health model farmers they all together found to be more fruitful in health intervention process because they are from the community setting and can easily communicate and transmit health messages to the community. Health model farmers are those people who are noted in their health achievement, among other things, teach and encourage community fellows and thereby initiate them to improve their environmental health conditions. They can be called 'engines' of encouragement

in the implementation of the environmental health practices. Community health promoters are semi trained individuals who receive health messages from trained health workers, teach, and induce people, and thereby serve as a bridge between the community and trained health professionals.

Looking the significance of community based health workers, it require institutionalization and mainstreaming them to health intervention approaches through adequate support and health training because low income countries like Ethiopia where service through trained health professionals are costly and inadequate, demand the use of local resources which are accessible and acceptable in the local setting.

Elders and religious leaders contribute to the health achievement, among the other things, in terms of communicating and attitude changes. Elders in Hadiya social milieu are respected and accepted, and have power in social matters. They usually receive health messages form health professional and teach their family. Religious leaders were able to change people's health behaviors through consistent morale teaching in relation to environmental health. For example, one of the dominant religious sect (protestant) is been teaching every Sunday before the usual spiritual session begins by quoting verses from the Bible. It is a usual phenomenon in local tradition that people are submissive when they are thought through the Bible

Considering the considerable contribution of local values or norms and community resources to the environmental health achievements and the importance of culture sensitive health interventions which are important in changing peoples' environmental health behaviors by deconstructing environmental mal-adaptations, it is beneficiary to efficiently exploit local values and resources, both to get access in approaching people and to develop sustained behaviors in environmental health practices.

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Appendixes

Appendix 1: List of key informants

The followings are lists of key informants with their places and dates of interviews; and their status.

No	Name of Interviewees	Places and dates of interview	Status
1.	Alemayehu Terefe	<i>Limmo woreda</i> Health Center,03/01/2012	Head of District Health Center
2.	Alemitu shiferaw	At <i>Bobicho</i> Health post, 05/02/2012.-09/02/2012.	Health Extension Worker at <i>Bobicho</i> Health Post
3.	Demesie Ergicho	At village of <i>Leyighaw Endara</i> ,09/01/2012	Community Health Facilitator at <i>Bobicho kebele</i>
4.	Amarech Degele	At Village of <i>Hakmura</i> , 20/02/2012- 26/02/2012	One of the voluntary Community Health worker at <i>Bobicho kebele</i>
5.	Abutie Keteie	At <i>Techingnaw Endara Village</i> ,10/02/2012-15/02/2012.	One of farmers who are level as model in their Health achievements.
6.	Aster	At village of <i>Mehal Endara</i> ,26/01/2012.	One of the wives of farmers who are label as model in

	Tefase		health achievements
7.	Demeke Moche	At Village of <i>Techignaw Endare</i> , 21/01/2012-25/01/2012.	One of Health Model Farmer at <i>Bobicho kebele</i>
8.	Amanuel Shiferaw	At Hosanna office of South Central Synod(EECMY), 05/02/2012.	The current officer of Sanitation and Hygiene in South Central Synod
9.	Teshome Medero	At <i>Bobicho Kebele</i> Administrative office, 06/02/2012.	Current Administrator of <i>Bobicho Kebele</i>
10.	Hambore Meshin	At <i>Bobicho Kelehiwot</i> church Compound, 13/01/2012.	Head of Kelehiwot church(commonly existing Christian religion sect in the study site)
11	Abera Adose	At Village <i>Mehal Endra</i> ,12/01/2012	Chief of social work group in <i>Bobicho Kebele</i>
12	Dessalegne Dunge	At <i>Hakmura</i> Elementary School, 10/01/012	The current principal of <i>Hakmura</i> Elemantery School
13	Abate Erdolo	At village of <i>Leyighwe Endara</i> , 14/01/2012-20/01/2012.	One of the chief Elder that constitute Hadiya's sub tribe

Appendix : 2 Lists of Photos



Photo 9: A Pit latrine making at *Bobicho kebele* (Source: Photo by the researcher, 2012).



Photo10: A sample of health model farmer's house at *Hakmura* village of Bobicho (source: photo by the researcher, 2012)



Photo 11: A family of health model farmer (Source: photo by the researcher, 2012).



Photo12: A sample of Health Model Farmer with Health Professional (source: a photo by the researcher, 2012).



Photo13: A scene of stream water usage which indicates the hygienic condition before the health intervention. (Photo: by the researcher, 2012).



Photo14: A sample of community based health workers at *Bobicho kebele* (Source: Photo by the resaercher, 2012).