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Review

The Historical Development of Early Warning Practice in Ethiopia Since 1970s

Birtukan Atinkut

Lecturer at Bahir Dar University, Faculty of Social Science, Department of History
Email: brtknstl97@yahoo.com

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Ethiopia has experienced a serious of disasters in its history. Despite the prevalence of numerous disasters, there were no disaster management policies and structures prior to the 1970s Ethiopian famine. But responding to disasters has been the characterizing features of Ethiopian governance. After the outbreak of the 1973/74 famine the imperial regime established the Relief and Rehabilitation Commission (RRC), for reaching out the affected people. In the same year, the Ethiopian National Early Warning System (NEWS) under the RRC was established, to predict the food situation in drought affected areas. Towards the end of the Derg regime, the RRC's mandate and responsibility was modified and included activities such as stockpiling of adequate foods, so that the impacts of the threatening and impending impacts of famines could be reduced. Moreover, it was also assigned to collect data about deficits and disseminate relevant and accurate information, in advance. However, despite the attempts made so far by the two regimes, the RRC was mainly engaged in post disaster activities. However, the coming of a new government in 1991 made a slight shift from reactive to pro-active approach. Therefore, this paper aims to reflect on the experiences the country has passed through to transform its drought early warning system since the outbreak of the 1973/74 Ethiopian famine. The paper is a review of published and unpublished secondary sources.

Keywords: Early warning, Disaster, Famine, Challenges

INTRODUCTION

Disasters have been causing a serious of human deaths and material destructions all over the world. Absence of coping capacity and vulnerability make the developing countries to suffer more from disasters than the developed ones. As of the developing nations, Ethiopia is the most vulnerable to manmade and natural hazards in which drought and flood are the major ones. The dependence of the country on rain-fed agriculture, usually leads drought to famine which has been a factor for the deaths and migrations of hundreds of thousands of people and even altering the course of history itself. Ethiopia was the center of the worst famines and droughts of 1888-1892, 1956/57, 1964/5, 1973/74, 1984/85 and 1990s and 2000s. Due to the outbreak of these famines and droughts, at least once in ten years, many lost their life, many of them migrated to safer places and those who survived those evil days had faced psychological trauma. In addition to this, the famine had also political implications which will be discussed later.

In one way or the other, these famines were resulted from the selfish interest of the then Ethiopian governments that intentionally ignored the food deficit reports of the early warning system officials.

This paper highlights the problems and the gabs to be examined. The first part of this paper reviews the different literatures on the meaning and elements of early warning

system which will be an important springboard to evaluate whether the Ethiopian early warning system has been implemented effectivly throughout the reign of the three successive regimes. The second part reviews the imperial, the Derg and EPRDFs attempt to introduce an early warning system in their disaster management policies. It was the imperial regime, for the first time in Ethiopian history that attempted to establish a government agency, RRC, authorized to predict the impending disasters, food deficits and to provide reliefs and rehabilitation activities to the victims of the famine. This paper will also attempt to review those sources on the major functions of the RRC and DPPC during the three consecutive regimes. The official replacement of RRC by DPPC and the most important transformation of the early warning activities and responsibilities from relief oriented to preventive will also be the other point to be discussed. All in all, the last section discusses the challenges that the RRC had faced during the implementation of the Early warning system since the outbreak of the 1973/74 Ethiopian famine.

Problems

One of the characterizing features of the Ethiopian disaster management system was its due emphasis on post-disaster activities. Despite the prevalence of those worst disasters, the Ethiopian governments devoted their time and resources on relief and response, let alone the realization of the principles of the early warning system. Moreover, disaster management in Ethiopia was traditional and spontaneous. Moreover, little attempt had been made to reduce vulnerabilities and increasing the capacity of the vulnerable groups to disasters and such type of measures were not included as part of development activities, particularly during the imperial and the Derg regime (Edmond 1992; Mulugeta 2010).

It was after the death of 250,000 Ethiopian people by the 1973/74 famine in which the then government established an initiative which was known as the Relief Rehabilitation Commission (RRC) to provide relief and response to the affected society. Under the control of the RRC, an early warning system was established to predict the existing situation in the drought vulnerable areas of Ethiopia. The RRC, which was established by the imperial regime was continued to give functions during the Derg regime. Under EPRDF, it seems most probable that, the Ethiopian Early Warning System transformed itself from reactionary to anticipatory. However, in practice, the Ethiopian early warning system was not free from challenges.

Ethiopia's disaster management as an issue has been attracted the attention of scholars but little has been said about the early warning practice throughout the three consecutive regimes; imperial, military and EPRDF and the challenges faced during implementation. Even those sources written on the Ethiopian early warning practice is fragmented and not completed. Thus, there is a need to have a complete investigation on the issue under discussion. Hence, this paper attempted to fill this gab. Accordingly, this paper will make a review on the historical investigation of the evolution of early warning system practice and its challenges throughout a serious of regimes since the outbreak of the 1970s famine. Historical literatures gathered from books, journals, published and unpublished research papers, documents and academic literatures are the main sources of this paper.

Early Warning System: A Review of Literature

Early warning can be defined as "the provision of timely and effective information, through identified institutions, that allows individuals exposed to hazard to take action to avoid or reduce their risk and prepare for effective response." Early warning system is an important aspect of disaster management process which helps individuals and communities to get prepared for the incoming risks so that economic losses and lives can be reduced. Early warning information makes people conscious of the problem and its dangerous consequences so that the appropriate action can be taken by both the affected people and concerned authorities (UNISDR, 2010).

In order to make an early warning system effective, according to United Nations' International Strategy for Disaster Reduction (2010), early warning system should be integrated with risk knowledge, monitoring and prediction, disseminating information and responses. Risk knowledge, by identifying the major hazard that threats a given area, is a priority when designing early warning systems. After the assessment of risk, monitoring and predicting the situation would be important. In this case, the impending risk faced by communities, economies and the environment would be predicted on time. Reliable, clear and understandable warning messages should be disseminated to the potentially affected locations and to the government authorities. The last but not the least stage is providing responses to the affected and vulnerable individuals and communities (Glantz 2003).

Moreover, the effectiveness of early warning system can be affected by lack of coordination, absence of good governance and inappropriate action plans. If the society cannot respond to the impending disasters, the early warning system becomes a failure and if ''the alerts are received but not disseminated by the agencies receiving the messages,'' the early warning system becomes unsuccessful. ''The basic idea behind early warning is that the earlier and more accurately we are able to predict short- and long term potential risks associated with natural and human induced hazards, the more likely we will be able to manage and mitigate a disaster's

impact on society, economies, and environment''(ibid).

Early warnings should have enough lead-time to give and prepare for responses. The warning should be transmitted through the identified and recognized institutions to increase the reliability of the information (Grasso 2006; UNEP, 2012). All these literatures gave us a clear picture about the elements of an early warning system and the criteria to distinguish whether an early warning system is considered as effective. Having the above literatures, this paper attempts to review the development of early warning practice and its implementation challenges from a historical point of view.

1. Early Warning Practice in Ethiopia

1.1. The Imperial Era (r.1930-1974)

It has now become clear that the history of Ethiopia is full of droughts and famines. It is witnessed that from 253 BC until 2003, about forty two famines and droughts were recorded (NMSA, 1996). But those disasters prior to the Great Ethiopian Famine, commonly known as the *Qefu Qen,* were little documented. Among the disasters that Ethiopia experienced, the one which occurred between the years1888-1892 was the worst in terms of its outcome. The repercussion of this famine was serious in that one-third of the Ethiopian population lost their life (Sue et al, 2009; Wilhte 2000) and it had an implication for the colonization of Eritrea under the government of Italy for not less than fifty solid years. In the mean time, Emperor Menilik (r.1889-1913), who was credited for the unification and independence of Ethiopia, did not have any disaster management policies and structures either to prevent the *rinderpest* epidemic, imported by the Italians through Massawa, or to reduce the impacts of the famine. He was even unsuccessful in receiving humanitarian assistance, let alone the existence of the early warning system which alerts the people and the international humanitarian organizations.

As of the previous regime, the reign of Hayle Sellasie (r.1930-1974) was also characterized by the frequent outbreak of disasters. For instance, the 1935/36 Italo-Ethiopian war, the 1940s epidemic (small pox), the Massawa, Kara Kore, and Serdo earthquakes that occurred in 1921, 1961, and 1969 respectively and the frequent and periodic droughts throughout its reign can be cited as an case in point. Regardless of its focus on post disaster activities, humanitarian assistance and protection was provided by the state in the period under discussion. For instance, in 1936 assistance was provided by the Ethiopian and International Red Cross Committee to victims affected by the Italian mustard gas. In 1949, the Ethiopian Red Cross established the first nursing school to get rid of smallpox. In 1961 the Ethiopian Red Cross gave a vaccination campaign for the victims affected by the Kara Kore earthquake. Besides, the emperor himself facilitated the construction of new villages for the victims (Sue et al 2009). In spite of the attempts made so far, early warning practice was absent in the mainstream of disaster management system in the period under discussion.

Likewise, the country also experienced the other three most terrible drought induced famines in 1957/58, 1964/65 and 1973/74. The former two famines that centered in North Wollo, are undocumented. These famines, by many scholars, were considered as the ''silent famine.'' The early 1970s Ethiopian famine took the lives of over 250,000 people. The government gave little consideration to the famine. Thus, the inability to manage the famine became the instant cause for the downfall of Emperor Hayle Selassie from power. It was the international TV programme that exposed "The Hidden Famine", called after the regime's attempt to hide the famine to the international community (Sue et al, 2009; USAID, 1989). Emperor Hayle Selassie, who seems active in international politics failed to bring solutions to the domestic problems that Ethiopia had faced.

When the international community exposed the famine, the government became rushed to establish some initiatives. For instance, the Ministry of National Community Development and Social Affairs established the Drought Relief Operations Coordination Office (DROCO) to supply relief to famine victims. The Awash Valley Authority founded Nomad Aid (NA) in the mid-1973 to assist the Afar pastoralists affected by the famine. The institution of Haile Selassie, on the other hand, was working towards the recovery of the affected children in Wollo (Sue et al, 2009). Thus, disaster management activities, in this period, were mainly focused on response and recovery, let alone the preparedness and early warning activities.

When the death of 250,000 people reported, as a result of the 1970s famine, the government realized that a system that monitors the food situation of the country, which at the same time could serve as an early warning system was necessary. As a result, on August 29, the imperial regime issued Order No. 93/1974 and established a government agency, RRC, the present Disaster Prevention and Preparedness Agency (DPPA). Subsequently, the Ethiopian EWS under the RRC was established in 1974. The RRC, as cited in (Dawit, 1989), stated that *whereas the recent drought and other natural disasters in our country have occasioned hardship in our beloved people the commission was mandated to identify and make known the problems and their degree in the areas of the country that are affected by natural disaster to take or cause to be taken short-and/or long term measures to solve these problems.*

Since the formation of the agency, its mandate became requesting and receiving assistance from domestic and international agencies for relief, rehabilitation and prevention purposes. However, practically, the RRC's

main function was directed towards mobilizing resources from the international community to provide reliefs to the affected people, let alone the preparedness plan. As a result, the RRC did not succeeded in undertaking long-term prevention and mitigation activities. Lack of skills in providing emergency measures, absence of a clear policy, unfavorable social and political environment, together with a series of disasters, became an obstacle for the RRC to implement what had been written in the legislation. Moreover, absence of coordination between central and local government institutions discouraged the RRC to exert more effort on prevention, preparedness and response activities. Moreover, RRC failed to deal with all natural disasters as mentioned in Order No.1973/74 of the legislation (Mulugeta 2010).

1.2. The Derg period (r.1974-1991)

In September 1974, Emperor, Hayle Selassie, who ruled the country for over Seventy years, was overthrown, possibly, due to his ignorance of the 1973/74 famine that killed 250,000 people within two years. When the Derg regime came into power, drought continued to affect Ethiopia. So as to reduce the impacts of drought, in 1978 the regime merged the RRC with the Settlement and Awash Valley Development Authorities to coordinate and mobilize resources for relief and rehabilitation purpose. One year later, the RRC established the Emergency Food Security Reserve (EFSR). The EFSR started to give function since 1982 (Sue et al 2009).

The Ethiopian Early Warning System that was established by the imperial regime continued to give functions during the military government. The regime organized the early warning system and about eight government agencies were assigned to be involved in the Ethiopian EWS. These agencies were; the RRC, the Central Statistical Authority (CSA), the National Meteorological Service Agency (NMSA), the Ministry of Agriculture (MOA), the Ethiopian Nutrition Institute (ENI), the Ministry of Education (MOE), the Agricultural Marketing Corporation (AMC) and the Ministry of State Farm Development (MSFD). Each agency had its own responsibility. The RRC, for instance, mandated to coordinate the entire activities, CSA assigned to gather crop and market information, NMSA managed to collect meteorological data, ENI gathers nutrition and consumption data, MOA involves in providing arable land information and provision of manpower in collecting crop data, AMC collects price on market, MSFD collects data on state farm production and its rainfall and MOE collects rainfall data (USAID, 1989; Jansson 1987; Dawit 1989).

Despite the effort of the government to avoid or reduce the impacts of disasters, Ethiopia experienced the other worst drought-induced famine exactly ten years after the 1973/74 famine. An estimated eight million people were affected by the 1984/85 famine. One million of the famine victims were died. Two years before the outbreak of this famine, the Ethiopian EWS in its monthly report warned that a serious crisis was going to be happened. Even though, the early warning information was accurate and timely, the government banned the report in media. In the mean time, the government was busy with its preparation to celebrate the 10^{th} anniversary of its seizure of power (USAID 1989). When millions of its citizens were dying and starving, the regime spent millions of dollars to celebrate its anniversary. But when the celebration was getting over, after two years of suffering, the government made the famine official and allowed journalists and humanitarian organizations to enter to the affected areas. Even though, the government requested the international community for assistance, it was too late to avert the disaster. Moreover, the assistance provided by the international donors was not successfully delivered to the affected people due to lack of emergency plan and preparation. As a result, the RRC could not prevent the death of one million people within two years (Sue et al, 2009).

1.2.1. Challenges of Early Warning System Practice During the Derg

The Ethiopian early warning system under the RRC had faced lots of challenges. These were:

- **The data collected by the agencies was poor**. Usually, different agencies collected qualitative rather than quantitative data. Though, quantitative data is important in order to identify the number of people affected by disasters, the number and amount of assistance required, the duration of the assistance, the country's status in terms of self-sufficiency or deficiency for the coming years and other valuable information to easily and equally address the problem. Thus, such issues, which are very crucial in designing EWS, should be addressed through collecting quantitative data.
- **The RRC could not receive information on time.** Early warning information could take longer time to reach the RRC. The government officials might be negligent to reach the information on time. Moreover, there might be absence of good governance to protect the public from disasters and lack of empowerment among local government, local institutions, and communities to participate in the entire disaster management process so that they are fully aware to provide information to the RRC on time. Infrastructural development might also hinder them to provide the information on time. Lack of awareness about the importance of early warning information, to avert the impending disaster, could also be an obstacle to provide effective early warning information to the RRC in advance.

- **The collaboration between different institutions or agencies was weak**. Agencies that were assigned to collect and provide information to the EEWS had been collecting and disseminating warning information occasionally or not at all. Among those agencies, the ministry of agriculture can be cited as an example that isolated itself from doing activities in collaboration with other agencies, ‘‘perceiving the system as RRC's as opposed to Ethiopia's.’’ Such mis-understanding and conflicts between governmental agencies was one of the challenges that the RRC had faced to achieve the intended objectives.
- **Replica of early warning data**. The RRC was enriched with too much but redundant warning data collected from the agencies. For instance, the Food Information System (FIS), the Emergency Prevention and Preparedness Group, FAO and others collected and reported on food information to the RRC. But, such different information from various agencies created uncertainty among the donors.
- **The relationship and coordination between agencies was weak**. Due to the negative perception of governmental agencies about the strength of the EW system, a failure was observed to provide the appropriate response to the Early Warning and Planning Services (EWPS). As a result, lack of cooperation and coordination between agencies was commonly observed which hindered the provision of reliable, effective and on time data to the RRC. Due to lack of such a link, the RRC was moving to the dark side.
- **The intervention of politics in the EWS**: Historically, the early warning system was not free from politics. Usually, warning information about impending deficits or disasters had political implications. For instance, some serious seasonal forecasts, collected by agencies, often sent to government officials but were not released to the public (USAID 1989). When the early warning agencies provided information about the impending disasters, the government usually banned the transmission of the forecast through media. In order not to expose the country’s socio-economic crises to the international community, the regime of Emperor Haile Sellasie hided the outbreak of the worst of the 1973/74 famine. Moreover, the outbreak of the 1984/85 Ethiopian famine and its effects on human lives was the result of the government’s failure to publicize the 1982 early warning forecast. Even though, the EEWS accurately predicted the impending disasters of the 1970s and 1980s, recognition was not given.
- **The early warning information is entirely geared towards drought**: almost all early warning information was preoccupied with drought than any other hazard. Predications and forecasts gave little attention to other hazards like epidemics, pest invasion, flood, earthquakes and others hazards. Perhaps, this is due to the frequent prevalence of drought and its sever impacts on the lives, property and economy of the country’s population.
- **Its focus on emergency relief**: rather than providing the advanced information for mitigating and coping with drought, the Ethiopian early warning system under RRC invested more time and resources on post-disaster activities particularly in providing emergency foods, shelter and medical services. Thus, little attention had been given to pre-disaster activities.
- **Conflicts between RRC officials:** the local and federal officials had always in conflict usually over the use of resources and disagreements in ideas. Due to differences in ideas between the local and central officials, for instance, there was a failure to recognize the 1988 RRC needs assessment report.
- **The Regimes military conflicts**: in various parts of the country, the government was busy in military conflicts with Somalia in 1977/78, Eritrea’s war of independence and Tigrean Peoples Liberation Front since the 1960s. Most of the country’s resources were wasted on military activities (USAID, 1989). As a result, the RRC had faced financial constraint to exercise its mandate freely which cost thousands of lives. On the other hand, in order to weaken the rebels, the government intentionally denied their rights to access food in times of famine. Not only the rebels, but also the areas and the communities they are living were not recognized as the subjects of the country. Besides, early warning information and food need assessment for those areas was more politically charged.

1.2.2 The Role of Governmental Agencies in the Ethiopian Early Warning System

1.2.2.1. The National Meteorological Service Agency

The role of NMSA was issuing a seasonal forecast to top decision makers, to the Commissioner of the RRC and Early Warning Group. In addition to the seasonal forecast, the NMSA prepared daily, weekly, ten-day and monthly reports on meteorological conditions with particular emphasis on rainfall (USAID, 1989).

1.2.2.2. Food Information System (FIS)

The Food Information System, located in the Central Statistical Authority, had been working with five other government agencies such as MOA, RRC, NMSA, Agricultural Marketing Corporation (AMC) and Ethiopian Nutrition Institute (ENI). Its main responsibility was to assess the food situation in the country, by monitoring crop production, the livestock situation, food stocks, flow of imports/food aid, prices and the nutritional status of the population to provide accurate and timely information in

order to alert all the concerned government agencies about the coming supply and deficits situation, as well as to indicate the required measures with sufficient time. FIS attempted to see the whole food situation, including deficits and surpluses (USAID, 1989).

1.2.2.3. Ministry of Agriculture (MOA)

The MOA monitor crop conditions and the weekly report includes area ploughed weekly, main crops grown at the woreda level, weekly planted area by crop type, total area affected by shortage of rainfall or high rain, information on the growth of crops, the area affected by pest/disease, the measures taken to solve the problem, availability/shortage of main inputs and information on harvesting time such as whether the crops are harvested early, on time, or late. If harvesting is not at the normal time, the reason for the failure would be explained. These weekly reports on crop conditions would be followed by monthly report (USAID, 1989).

1.2.3. Non-Governmental organizations and early warning systems

NGOs collect information about rainfall, crop conditions, market prices, population movements, health problems, the sale of assets and the types of foods consumed during famines. For example, SAVE-UK maintains a nutritional observation program in Wello. In its October 1988 report from Wello SAVE-UX described how it assessed the nutritional status in three peasant associations. It reported that the information was collected through discussion with local people and through direct observation on crop condition, weather patterns, mortality and migration. Moreover, the Christian Relief and Development Agency (CRDA) also produced monthly reports about the nutritional status of the household in the areas they were working. Besides, the UN Emergency Prevention and Preparedness Group (EPPG) was also another important input for the enrichment of EW information (USAID, 1989).

3.EPRFD (r.1991 onwards)

The droughts and famines that the country experienced forced the new government, that came into power following the exile of Colonel Mengistu Haile Maryam to Zimbabwe in 1991, to re-organize the agency (RRC) and to design new programs and policies. After dealing with government officials, community leaders and academicians, the government adopted a National Policy on Disaster Prevention and Management (NPDPM) in October 1993 (Mulugeta 2010; Sue et al, 2009). The adoption of the NPDPM was due to the key principle that "no human life shall perish for want of relief assistance in times of disaster." In order to implement the policy at grass root level, the Program and the Emergency Code were enacted (Mulugeta, 2009; Sue et al, 2009).

Learning from the past regimes failure, the new government tried to focus on prevention and preparedness plans, increasing the capacity of vulnerable groups, mobilizing resources in normal and bad times, integration of relief assistance with development efforts, taking long-term preventive measures of disasters, strengthening resource and institutional capacity, providing the necessary response to minimize the sufferings during and after disasters (Mulugeta 2010; Stephen, 2003). Soon, the Emergency Food Security Reserve Administration was re-organized and was soon credited for averting famine in the 1993/94 drought years.

In 1995, the government re-organized the government's disaster management structure and the Disaster Prevention and Preparedness Commission (DPPC) was established officially replacing the RRC under Proclamation No-10/1995. In the same year, an early warning system that particularly aimed at preventing and mitigating losses, under DPPC, was established. The Objectives of DPPC are:

- Preventing disasters by reducing their root causes (i.e Prevention),
- Building, a head of time, the capacity necessary to reduce the impact of disasters (i.e. Preparedness),
- make certain whether the required assistance to victims of disasters reached on time (i.e. Emergency Response). Under these circumstances, the early warning system is part and parcel of preparedness.

All the mandates and responsibilities of RRC were taken by DPPC (1995–2005). But the DPPC was only functional for only three years from 2005–08. Currently, it is the Ministry of Agriculture and Rural Development's (MoARD) Disaster Management and Food Security Sector (DM/FSS) which exercises full power from 2008 to present (Sue et al).

The DPPC became the secretary of National Committee for Early Warning (NCEW). The EWS is supported by NCEW. The members of NCEW are EWRD, MOA and Rural Development, Ministry of Health, CSA, Ethiopian Mapping Authority and NMA. In 1996 Early Warning Working Group (EWWG) was founded. Its main purpose was coordinating EW activities related to food-insecurity among government agencies, national and international donors (Sue et al 2009).

One of the first and the earliest in Africa, the Ethiopian EWS has been conducted periodic and annual risk assessments using social, economic, cultural and physical indicators. But most of the time, the EWS mainly focused on predicting the food situation of the country particularly on emergency cases. In order to collect, organize and disseminate EW information, committees have also been established in all regions along *woreda* and *kebele* levels which will make the provision of ‘‘up-to-

date information,'' and prediction of the coming disasters easier (Burg, 2008).

The Ethiopian EWS was successful in predicting potentially risks of the 1984/85, 1992, 1994/95, 1999/2000, and 2002/2003 . In 1990 the EWS information urged the government to put a food reserve of 205,000 tons to provide food, in times of emergency, approximately for 4.2 million drought vulnerable population about for four months. In 1998 the Emergency Food Security Reserve Administration stockpiled about 307,000 metric tons of food (MT) that detained a worst famine that was expected to occur in 1999/2000'' (Nicholas et al, 2006; Lautze, 2003).

In 2003, Ethiopia was threatened by the outbreak of another drought. However, the Ethiopian early warning system alerted the international and national government agencies to avoid the worst of the famine that the country was familiar. The DPPA Early Warning Department conducted regular monitoring by using various indicators of climate, crops, livestock and markets. Representatives from international humanitarian organizations and international development agencies, national and international journalists were involved in observing the situation in the affected areas. In August, DPPA's Early Warning Working Group made an assessment to make the preparation of contingency easier. Based on these assessments, conducted by the DPPA, the country requested international assistance in September. As a result, with the funds received from the humanitarian organizations, ''short-cycle crops that could be grown during the long rainy season'' were bought. In order to know the real emergency assistance required, the second assessment was undertaken in November. According to this assessment, it was concluded that the situation was categorized under the 'worst case scenario.' Thus, about 14.3 million people were in need of food aid but a major famine was evaded due to the government's attempt to shift towards pro-active responses rather than reactive (Nicholas et al, 2006).

3.1. Challenges of Early Warning Practice in Ethiopia

❖ **Centralization of early warning system**: regardless of the attempts made by the government to decentralize the early warning system, most of the activities were subjected to centralization. As it is stated in the policy, the DPPC's Early Warning System symbolizes a "bottom-up" approach but in practice it is a top-down approach. Much of the data collected at the *woreda* level, is processed at the federal level, and the results are transmitted to the government and relief agencies, rather than to the *woreda* officials. The decision makers on the data are the government, international relief and donor agencies, not the people (Burg, 2008).

❖ **Shortage of early warning data**: in terms of its quality and quantity, the system has been facing a shortage of accurate and on time data.

❖ **Shortage of trained and skilled human power**: one of the serious challenges that the EEWS is facing is shortage of skilled human power which makes the function of EWS difficult.

❖ **Mobilization of international humanitarian assistance**: its main focus was mobilizing external food aid to the country for emergency needs rather than the implementation of EW principles.

❖ **Lack of stations**: stations, to collect and organize data, are not enough and most of the stations are located next to the main roads or in towns.

❖ **Less cooperation between the media and the National Metrological Agency**: information was not easily available to the media. Most of the time, the government do not publicizing warning information about impending disasters. Usually, it is the international media that reported the drought when it reached the scale of a disaster (Climate Risk Management in Africa, 2007).

❖ **The information flows are weak**: especially the information to and from grassroots level is weak due to lack of national communication system.

❖ **Its focus on rural areas**: The EWS practice mainly focused on rural areas, giving little attention to urban-based hazards.

❖ **Lack of preparedness for non-food emergencies-** in the EEWS there is a clear problem on the lack of preparation on assistances unrelated to food. Most attention has been given to food related assistances (FDRE, 2009).

CONCLUSION

Ethiopia experienced the worst disasters in its history. For this reason, the Ethiopian governments have not been remained silent in reducing the impacts of disasters. However, their main disaster management activities were mainly pre-occupied with providing reliefs to the victims, rather than prevention and preparedness activities. But, after the outbreak of the 1970s famine, which killed a quarter of one million people, the then government tried to introduce disaster management policies and structures aimed at response, recovery and rehabilitation. For this purpose, the relief and rehabilitation commission was established in 1974. In the mean time, the Ethiopian EWS located in the RRC was also set up. However, due to lack of skilled human power, bureaucracy and bad political situations, the formation of the RRC was a failure.

After the overthrow of the imperial regime in 1974, the military government seized power and tried to re-organize the RRC to take actions like providing reliefs to the victims, resettling those affected by the famine and introducing conservation programs. The early warning system was also successful in predicting the impending disaster of 1984/85, despite the unwillingness of the regime to expose the famine through the media, which had been a tradition among the Ethiopian governments. However, the regime, who tried to introduce Disaster Prevention and Preparedness Strategy (DPPS), towards the end of its reign, was forced to remove from power in 1991 without seeing its fruits. The coming of a new government, EPRDF, transformed the Ethiopian disaster management system including its early warning policies from reactionary to anticipatory.

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