

## Post drought recovery strategy among pastoral households using effective coping mechanisms in Harshin Woreda, Somali regional state, Ethiopia: A Study

Dr Partha Sarathi Bhattacharjee<sup>1</sup> Muktar Mahamuud Habane<sup>2</sup>

1.Asst.Professor(Development Studies), Department of Rural Development and Agriculture Extension, College of Dryland Agriculture, Jigjiga University, Jigjiga, Somali Region, Ethiopia(East Africa).

3.Coordinator Pastoral Development Studies &Senior Lecturer, Department of RDAE, Jigjiga University, Jigjiga, Ethiopia.

2.Senior Lecturer , Department of Rural Development and Agriculture Extension, College of Dryland Agriculture, Jigjiga University, Jigjiga, Somali Region, Ethiopia(East Africa).

**Corresponding Author:** Dr. Partha Sarathi Bhattacharjee

---

### Abstract

**Issues:** It is estimated that around 180 million pastoralists are living in developing country including in Sub-Saharan Africa. Out of 180 million, it is estimated that around (50million) live in the Sub-Sahara rangelands of Africa in general and East Africa in particularly. Pastoralists are nature lovers and their livelihood mainly depends upon the products and productivity of domestic animals like cattle, camels, goats, sheep, and donkeys etc. Recurrent droughts, among other factors, have deteriorated the ecosystem, eroded livelihood assets of pastoralists and thereby jeopardized livelihoods of the pastoralists where Harshin Woreda is not exceptional. **Methods:** Descriptive research design has been adopted with mixed methods approached for this study. Harshin District(Woreda) is one of the eleven district of Fafen Zone in the northern part of the Ethiopia Somali Regional State was selected purposively. Using suitable statistical tools and methods the sample size was determined. **Findings:** pastoralists exist as individuals in communities that are often tribally affiliated, with partly different histories, different languages, and social and cultural values and ties, distinct struggles for power. They may have diverse species of livestock, with different degrees of mobility and follow different mobility routes. But it is clear that common pool rangeland resources in the study area have become inadequate to support the livelihoods of marginal pastoral groups. **Conclusion:** The recurrent droughts are permanent problems here. The different coping strategies employed by the pastorals are more of short-term responses and are largely aimed at redressing short- term acute needs. Thus, they should not be considered as stand-alone efforts in foreseeing and mitigating acute emergencies.

**Key Words.** 1. Post Droughts 2. Recovery 3. Strategy 4.Pastoralists 5.Copying 6. Mechanism

---

Date of Submission: 18-04-2022

Date of Acceptance: 04-05-2022

---

### I. Introduction

Pastoralists are nature lovers and their livelihood mainly depends upon the products and productivity of domestic animals like cattle, camels, goats, sheep, and donkeys etc. The pastoralist does not exist either individually or in a homogenous group. The lonely herder wandering in the wilderness to find pasture and water for animals is a romanticized picture of the harsh living and survival conditions of pastoralists (Justin Ginnetti and Travis Franck, 2014). Rather, pastoralists exist as individuals in communities that are often tribally affiliated, with partly different histories, different languages, and social and cultural values and ties, distinct struggles for power. They may have diverse species of livestock, with different degrees of mobility and follow different mobility routes. They may be more or less diversified and commercialized and with different levels of access to resources and markets as well as different views of themselves and their future.( Justin Ginnetti and Travis Franck , 2014)

It is estimated that around 180 million pastoralists are living in developing country including in Sub-Saharan Africa. Out of 180 million, it is estimated that around (50million) live in the Sub-Sahara rangelands of Africa in general and East Africa in particularly. According to study about 12% of the rural populations (Thorntonetal. 2002) are pastoralists and their livelihoods depend upon livestock production and productivity. An essential part of their survival strategy involves taking advantage of the mixed social environment that many pastoralists live in through trading, exchanging, or allying with neighboring groups such as foragers, farmers, urban dwellers and sometimes other pastoral people (Fratkin, 2007).

The Somali region is one of the regions with large number of pastoral and agro-pastoral community. The region in general and Harshin district in particular have seriously suffered from recurrent droughts. Added to the harsh environment, the Harshin woreda pastoralists have been the frontline victims of recurrent droughts (Francois,2019). To say some, the scare of the drought in the year 2000 was not completely healed, when it was again heated in 2003. This zone was one of the most seriously affected areas in the country in 2003. Subsequently in the recent past also Ethiopia suffered two distinct droughts which affected different geographical areas, first the El Niño-type drought in 2015-16, followed immediately by the Indian Ocean Dipole (or IOD associated drought) in 2016-17.(Francois,2019).

Recurrent droughts, among other factors, have deteriorated the ecosystem, eroded livelihood assets of pastoralists and thereby jeopardized livelihoods of the pastoralists in this district. Nevertheless, the pastoralists have never been passive victims of drought. They have been developing local adaptive strategies to the changing environmental conditions. Their long-established indigenous mechanisms or strategies are facing a formidable challenge with the high pace of change in the environment. Therefore, there is a need to understand their coping and recovery strategies in order to make development initiatives in these areas.

## II. Literature Review

Pastoralism is an economic pattern in which people make their living by tending herds of large animals. And it is most often an adaptation to semi-arid open countries in which farming cannot be easily sustained (Daniel, 2005) Coping is thus defined as a short-term response to an immediate and in-habitual decline in access to food, and means acting to survive (Fassil *et al*, 2001) drought in sub Saharan Africa and South Asia, concluded that these responses can be categorized as “protect consumption” and “modify consumption” (Deveruex,2006). . Community strategies include; sharing, lending and giving of livestock as gifts and institution of legal restrictions, on the rangeland resources (Deucher, 2005) Levels of and trends in pasture production, livestock numbers and productivity, cereal availability and relative prices all constrain what can be achieved within each phase as is shown below (Scoones, 1994) Climate change is increasingly affecting the area, with changing rainfall patterns (both in terms of time and geography) and the modification of the vegetation cover. As a result, periods between bad years are becoming shorter and recovery is more difficult (Francois *et.al.*,2019))

### Objective

The objective of this study is to assess how the pastoralists’ community in drought prone areas of Degahbour district rebuild and strengthen their recovery strategies in the post drought period.

### Methods and Research Design

Harshin District(Woreda) is one of the eleven district of Fafen Zone in the northern part of The Ethiopia Somali Regional State. The woreda is located and bounded between 8° 27' 11.0187" N to 10° 01' 40.170 North and "N" and 41° 40'13.6557" E to 45° 32' 35.7129" East. It covers a total area of 1,315.1 km<sup>2</sup> and is bordered by Kebribayah woreda in the west, Somaliland to the north, east, and Aware and Degahbur woredas to the east and south respectively. Harshin town is about 120 km from Jigjiga.(CSA ,(2007)

The study adopted descriptive research design. The descriptive research design selected with the assumption that will be helpful to obtain relevant information from concerned respondents on the, assessing the adaptive strategy of pastoralist to recurrent drought in Harshin woreda in Somali regional state and to gain detailed data from large number of respondents to draw the necessary conclusion

### Sample size Sampling Method

In this study Harshin woredas was selected purposively, out of twenty one kebeles only three kebeles namely Lankeyrta, Farah liban and Aran'are randomly selected and using Yamane (1967) total sample size (175) selected and proportionately distributed among kebeles.

## III. Results and Discussion

Production of Livestock is a challenge for pastoral community during normal year also because of many issues but it becomes more challenge during drought years. Therefore Researcher has brought and analyze the data about the perception of difficulties for livestock production during normal and drought years as shown below:-

**Table.1. Major Constraints to Livestock Production in Normal and Drought Year**

Constraints	Normal Year	Drought Year
Water Scarcity	73.0	92.5
Livestock Diseases	80.5	94.4
Range Degradation	77.0	90.2

Feed Shortage	76.0	94.3
Lack of Market Outlet	73.0	76.4

Source: Primary data, 2021

### Perception about Drought:

Here it speaks about the idea of drought that carries by the respondents in the study area. It is most important to prepare in advance to fight against such natural calamities occur oftenly.

**Table. 2 Perception about recurrent droughts by the pastoralists**

Pastoralist' Perception on:	Likert Scale in decreasing order					Total
	Strongly agree	Agree	Neutral	Disagree	Strongly disagree	
1. Frequency of Drought increase	35(22.43)	110(70.51)	6(3.84)	2(1.28)	3(1.92)	156(100)
2. Unpredictable Rainfall	10(6.41)	105(67.30)	15(9.61)	12(7.69)	14(8.97)	156(100)
3. The cessation of rainfall become more unpredictable	9(5.76)	80(51.28)	40(25.64)	20(12.8)	7(4.48)	156(100)
4. Decreased Rainfall days	30(19.23)	91(58.33)	30(19.23)	4(2.56)	1(0.64)	156(100)
5. The intensity of rainfall Decreased	24(14%)	82(46%)	40(23%)	24(14%)	5(3%)	175(100%)
The occurrence of untimely rainfall increased	16(9%)	101(58%)	37(21%)	14(8%)	7(4%)	175(100%)

### Copying Mechanisms

#### Herd Diversification:

Under conditions of environmental variability, an opportunistic stocking strategy requires, in addition to herd mobility, species diversification (cattle, goat, sheep, and camel) and emphasis on incentives on primary productivity. The type and quantity of feed resources available determine species diversification plan of the households. A household's motivations for primary productivity, such as potential of herd to produce immediate products that household members demand (such as milk) and the restocking capability (ability to reproduce in a short interval) are important elements in both production systems.

#### Livestock Raiding

Livestock raiding has long been one of the strategies used by livestock owners to rebuild their herds after the occurrence of drought. Key informants indicate that it has a long history. It is common in the study area.

## IV. Findings, Conclusion and Recommendations

The results of this study reveal that recurrent droughts are permanent problems that pastoral communities of Ethiopia in general and Harshin Woreda in particular have to live with. It is clear that common pool rangeland resources in the study area have become inadequate to support the livelihoods of marginal pastoral groups. Productivity of livestock are exacerbated by the breakdown of seasonal grazing patterns, scarcity of water, reduction in pasture availability and conflict over resource use. The different coping strategies employed by the pastorals are more of short-term responses and are largely aimed at redressing short-term acute needs. Thus, they should not be considered as stand-alone efforts in foreseeing and mitigating acute emergencies. As a result food insecurity remains critical stage when such catastrophic situations aroused. Therefore, they continue with the traditional practices like sharing of resources with each other or periodic mobility to other places.

### Recommendations

- To develop a sustainable approach linked with local –regional and central governments to increasing adaptive capacity and resilience
- To bring different stakeholders in order to make appropriate decision during need hours.
- To develop certain platform where pastoralists can share their experiences, knowledge, information and skills between communities, sectors, formal and customary institutions.
- To develop awareness campaign to educate the people how to handle the catastrophic situations using resources optimally.
- Intra drought and post-drought management issues need to be understood better in order to identify the gaps in action during drought and post drought, therefore, further research is appreciable in context of the study area for better policy option

### References

- [1]. Ahmed et, al.( 1999). *Livelihoods in the Dryland of east Africa, Horn of Africa Regional Workshop Agricultural Policy, Resource Access and Human Nutrition.*, (OSSREA) Addis Ababa, Ethiopia
- [2]. Ahmed et,al.(2002). *Post Drought Recovery Strategies among the Pastoral Households in the Horn of Africa.* OSSREA Development Research Report Series, no. 3. Addis Ababa: OSSREA.
- [3]. Bishnu Raj Upreti, (2001). *Conflict management in natural resources: a study of land, water and forest conflicts in Nepal.* The Netherlands.
- [4]. Christopher Pratt, (2000). *Traditional Early Warning Systems & Coping Strategies for Drought Among Pastoralist communities.* Fletcher Schools of Law and Diplomacy. Tufts University.
- [5]. Coppock, D.L. (Ed.), (1994). *The Borena plateau of southern Ethiopia: Synthesis of pastoral research, development and change, 1980-91.* Sytem studies Number 5. International Livestock Centre for Africa, Addis Ababa, Ethiopia. 374-78.
- [6]. Daniela F.Sieff, (1999). *The Effect of Wealth on Livestock Dynamics Among the Datoga Pastoralists of Tanzania.* *Agricultural systems 59 (1999) 1-25*Institute of Biological Anthropology, University of Oxford, UK.
- [7]. Devereux, Stephen. (2006). *Vulnerable Livelihoods in Somali Region, Ethiopia.* Institute of Development Studies. April 2006 UK .196.
- [8]. Francois,et,al.(2019). Comprehensive review(CR) of 2016-17 Echo Horn of Africa(HOA) Drought Response
- [9]. Fassil Kebebew, et,al.( 2001). *Traditional Coping Strategies of the Afar and Borana Pastoralist in Response to Drought.*Dry lands Coordination Group Report No. 17.November 2001.Norway.74-76
- [10]. Getachew Kassa,( 2001). *Dimensions of Pastoral Poverty in Ethiopia.* In *Poverty Reduction and Pastoral Development.* Proceeding of the 2<sup>nd</sup> Annual Conference on Pastoral Development in Ethiopia. May 22- 23, 2001. Addis Ababa, Ethiopia.
- [11]. *Poverty Reduction and Pastoral Development, (2001). Proceedings of The 2<sup>nd</sup> National Conference on Pastoral Development in Ethiopia. May 22 - 23, 2001* Addis Ababa ,Ethiopia.
- [12]. Ragnar,et,al.(1999).*Good Practices in dry land management 1999.*The interenational Bank for Reconstruction and Development/ The World Bank. Washington,USA. 116-20.
- [13]. Richard Hogg, (1997). *Drought Contingency Planning to support Pastoralist Livelihoods in Ethiopia.* A discussion paper prepared for UNDP-EUE .
- [14]. Scoones, Ian. (1994). *Living with Uncertainty. New Directions in Pastoral Development In Africa.* Intermediate Technology Publications.London.UK.
- [15]. Solomon Desta, et,al(2003). *Pastoralism and Mobility in the Dry lands.* The Global Dry land Imperatives United Nations Development Program Dry Land Development Centre ( UNDP-DDC) August 2003.Nairobi Kenya.

Dr. Partha Sarathi Bhattacharjee, et. al. "Post drought recovery strategy among pastoral households using effective copying mechanisms in Harshin Woreda, Somali regional state, Ethiopia: A Study." *IOSR Journal of Agriculture and Veterinary Science (IOSR-JAVS)*, 15(04), 2022, pp. 34-37.