INDRA GANDHI NATIONAL OPEN UNIVERSITY

SOCIOECONOMIC EFFECT OF TENDAHO SUGAR CANE PLANTATION ON THE PASTORAL LIVELIHOOD OF AFAR NATIONAL REGIONAL STATE

MA(RD) Thesis Research Proposal

By

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Feb 10, 2015

ADDIS ABABA, ETHIOPIA

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LIST OF ABBREVIATIONS

CSA	Central Statistics Authority
SNNPRS	Southern nations and Nationalities Peoples Regional State
ARS	Afar Regional State
MOA	Ministry of Agriculture
BOA	Bureau of Agriculture
MOWRD	Ministry of Work and Rural Development
TSP	Tendaho Sugar Planation

1 INTRODUCTION

1.1. Background of the Study

Expansion of crop production and irrigation agriculture is one of the factors that resulted in rangeland encroachment in Lower Awash Basin. According to Hellnad (2015), irrigation agriculture first started in the 1960s with a large-scale concession for cotton farming in the Lower Awash, followed by a number of farms in the Middle Awash, usually set up as joint ventures between the Awash Valley Authority and foreign companies.

The Ethiopian pastoral community is estimated to occupy about 61-65% of the total area of the country and are home to 12-13% of the total population. In addition, out of the total estimated livestock population of the country, the pastoral areas constitute approximately 30% of the cattle, 52% of the sheep, 45% of the goats, and 100% of the camels (MOA, 2000). However, recent livestock population estimates obtained from the Central Statistics Agency pastoral areas raise these figures to 49% of the cattle, 47.5% of the sheep, 51.5% of the goats, 100% of the camels and 12.9 % of the equines (CSA, 2011).

In these areas, where pastoral production system is the dominant way of life, livestock is the primary source of existence, providing milk and cash income to cover family expenses for food grains and other essential consumer goods. Further more, the lowland pastoral areas have been the traditional source of export animals (Belachew, 2003 as sited by Hayatudin 2006). Pastoralists have the greatest contribution for the national livestock resource, accounting for more than 28 percent of cattle, 26 percent of sheep, 66 percent of goats and 100 percent of camels (Hayatudin, 2006).

Pastoralism in the past was highly successful in supporting people who depend on a fragile natural resource base and marginal lands even under adverse conditions (Ayalew, 2001). The situation now is dramatically changing. Recurring drought has become a common scenario in the pastoral areas. High population growth coupled with declining productivity is making the crisis vicious. More than 50 percent of the chronic drought-affected population in the country is from pastoral areas (Biruk, 2002).

The challenges the pastoral production system facing are myriad. Largely due to widespread misconception about the system among national governments and planners, the policies devised for these areas were detrimental for the pastoralists. Such policy measures include allocation of land for non-pastoral use mainly the development of irrigated commercial agriculture, attempts to disrupt herd movement which severely disturb the grazing cycle, moving agriculturalists in the pastoral areas, coercive settlement of pastoralists in agriculture and related schemes, arbitrary reduction in herd size (Ayalew, 2001). These actions, which resulted from the presumption of pastoralism as irrelevant to development and often damaging to the habitat, had significantly affected the pastoral production system. On top of this, the establishment of wildlife conservation areas in traditional grazing lands of pastoralists had also contributed its share in making the situation worse.

The focus of wildlife conservation in Ethiopia is based on a system of delineating wildlife conservation areas. The reserve areas are widely distributed in the country representing different eco-system including alpine, aquatic and arid areas. There are nine national parks, three sanctuaries, eleven wild life reserves and 18 controlled hunting areas. In total, these areas cover about 194,000 square kilometers or approximately 14 percent of the country's total area (Leykun, 1995).

Various attempts have been made in different countries to minimize the impact of conservation parks on local inhabitants and to make them beneficiary by following "participatory" management approach. This move was triggered by the realization of the importance of incorporating the needs and perspectives of local people for sustainable development. Although the adoption of this approach and the projects it undertakes offer a wide range of benefits to local people, such schemes have rarely been subjected to full cost benefit analysis using social indicators and therefore, their ecological and socio-economic viability cannot be guaranteed (Lane, 1995).

The majority of these schemes aim to compensate local people for the loss of access to natural resources by providing alternative livelihood sources. By doing so, it is assumed that the incentive to encroach into protected areas and /or poach wildlife is removed (Lane, 1995). In practice, these schemes usually are carried out under the auspicious donor funded projects. Which view local people as passive beneficiaries. However, benefits are not always distributed equally. Compensation is rarely proportional to the amount of income forgone, and the services do not address sufficiently the needs of the people (Hayatudin, 2006). Basically this is one area of the problem the pastoral areas are facing; but this paper doesn't attempt to go into details of such scenarios.

Rather in a different scenario, state farm expansion the likes of sugarcane plantation and factory plant is aggressively underway in pastoral areas particularly in Afar by clearing the river flood plain for sugar plantations (Roy Behnke and Carol Kerven June 2011). A comparable analysis has been done by the two researchers pertaining cotton, sugar farms

and cattle herding. According to their study, a well-run private cotton farm may achieve rough productive parity with pastoralism. However, state cotton farms lost money for decades. Current development programmes suggest that the Ethiopian government is aware of this situation. For some time it has been either turning the operation of its cotton holdings over to private interests – the Afar clans or investors – or transforming old government cotton farms into sugar plantations. The state's sugar estates are more profitable than its old cotton estates, but whether farming sugar cane is more profitable than livestock production is doubtful. Pastoralists in Afar are nonetheless currently losing additional land to expanding state-owned sugar plantations (Roy Behnke and Carol Kerven, 2011 and 2013).

Therefore, this study is proposed to make an empirical research prove that if state sugar cane plantation and its subsequent sugar factory is a blessing or a curse to the pastoral people of Afar Regional State by taking Tendaho Sugar plantation/factory as a reference. The research theme particularly focuses on how the factory and its related settlement affect the nomadic living patterns of Afars from both positive and negative perspective of the state farm intervention.

The output of this research is believed to have much contribution as an input for the policy and planning machineries operating at different level of the political structure at regional and national level. It is also believed to indicate corrective measures if the current sugar cane plantation and sugar factory entails negative results to the overall socio economic and political and cultural settings of the region contrary to what is envisaged from the outset.

1.2. Statement of the Problem

The Ethiopian pastoral areas are estimated to occupy about 60-65% of the total area of the country and are home to 12-13% of the total population. In addition, out of the total estimated livestock population of the country, the pastoral areas constitute approximately 30% of the cattle, 52% of the sheep, 45% of the goats, and 100% of the camels (MOA, 2000). However, recent livestock population estimates obtained from the pastoral areas raise these figures to 49% of the cattle, 47.5% of the sheep, 51.5% of the goats, 100% of the camels and 12.9 % of the equines (Bruk, 2003).

Livestock in the pastoral areas are the major source of food (milk and meat) and income, as well as a source of employment. They also serve similar purposes and functions for people living in urban and rural towns adjacent to the pastoral areas. Livestock contribute a significant amount to the national economy. In terms of gross national product, the contribution of livestock to the agriculture sector and the national economy is 40% and more than 20% respectively.

However, the pastoral production system and in particular the food security and livelihood situation is highly threatened because of different manmade and natural risks. Following are some of the salient risks and challenges the pastoral communities in the country are facing: i) expansion of sedentary agriculture; ii) expansion of agricultural projects; iii) expansion of national parks inside the rangeland; iv) emergence and expansion of agro-pastoralism; v) encroachment of unwanted plant species; vi) conflict over rangeland resources; and vii) recurrent drought.

Amongst the entire problems that threaten traditional pastoral territory with that of sedentary agriculture is the constant expansion of agricultural projects.

Since the last 50 years, the Afar Region alone has lost close to 50-60,000 hectares of dry-season grazing area along the Awash River to various plantation projects. Similarly, the Keryu lost about 22,000 hectares for the Methara sugar estate. Specific examples that can be cited in Somali region include the Gode irrigation project with a potential of 27,000 hectares, and the Chinagsen, Serge, Elbaye and Biye dams with a potential of irrigating about 1000 hectares. In Afar, besides the existing irrigable land, an additional study has been conducted to use the rivers of Ewa and Awra for irrigation purposes. In South Omo (SNNPRS) the emergence of large-scale commercial irrigated agriculture using the rivers of Omo and Woyto could also have the same effect. Construction of the Alwero dam with a potential of irrigating 10,000 hectares (MOWRD, 1999) of grazing land and a study to undertake similar irrigated agriculture using the rivers of Bonga and Itang could have a sizeable impact on the rangeland resources in Gambela region (Oxfam GB, 2003).

In all the above cases, according to Bruk (2003) sited various sources he mentioned that at national level a sizable area has been converted and put into crop cultivation. According to the most recent land use/cover of the different pastoral Regions, the area converted to crop agriculture has shown a dramatic increase. These include 178,000 hectares (CEDEP, 1999) in the Afar Region, 390,000 hectares (Regional BoA, 1999) in the Somali Region, 1,332,900 hectares (Zonal DOAs) in the Borena Zone of Oromia Region, 58,503 hectares (SNNPRS, 2000) in South Omo of SNNPR, 32,452 hectares (Socio-economic Study of Gambela Region, 1996) in Gambella Region, and 38,717 hectares (WARDIS, 1998) in

Benshangul Gumz Region. Using crude estimates, the total area of the rangelands that are in the process of being converted to crop agriculture could be approximately 1.9 million hectares.

Therefore, this research endeavor will attempt to look into what is the overall impact of the increasing expansion of agricultural land in the pastoral areas. Does such expansion and settlement affect their current socio economic and their livelihood? Does such large-scale investment have received the consent of the local inhabitants? Does it have gradual impact on future internal geopolitics of the region and the nation as a whole?

Thus, this research will deal with to answer such question by considering Tendaho Sugar plantation (TSP) and its related settlement as a case. TSP is located in Afar regional state (ARS) of Ethiopia.

1.3. Objectives of the Study

1.2.1. General Objective

This academic research aimed at conducting a study how the increasing expansion of agricultural lands over the rangelands in ARS affected the nomadic way of livelihood and the overall lives of the pastorals in the area.

1.2.2. Specific Objectives

- To investigate the extent of the increasing shrink of grazing land in ARS affects the pastoral lives.
- To explore whether the agricultural investment impacted the physical environment.

- To look into how the settlement effort of the pastorals and migrant workers with regard to the sugar cane plantation in Tendaho affects the socio cultural values of the Afar pastoralists.
- To investigate if such large-scale agricultural investment was carried out on participatory basis at grass root level..
- To indicate corrective measures if such government initiatives did not consider the actual context of the area.

1.4. Research Hypothesis

The expansion of sugar estates in ARS has seriously affected the economic/livelihood and socio-cultural condition of the pastoralist communities who has been using the grasslands as a primary source of pasture for their livestock.

1.5. Coverage or Scope of the Study

The study is to be conducted in the ARS where the Tendaho Sugar Cane Plantation and factory is located. In the selection of this pastoral region certain important factors were taken into consideration. The first one is that it is this pastoral region, which is perpetually affected by the increasing expansion of agricultural land and plantation in Ethiopia.

The scope of the study is just to learn if such expansion is an advantage or a gradual devastation to the pastoral lives of the area. In addition, the area is accessible for modern transportation facilities for easily collecting the required data.

1.6. Significance of the Study

The impact of agricultural land expansion on pastoral areas is becoming an issue even on international arena. There is a growing disparity among various proponents of different school of thoughts. There is of course an effort to enable the pastoralists to take advantage out of the sugar cane plantation as being daily laborers. However, this is quite in opposite with tradition, experience and practice they are accustomed with for centuries. Thus, in this study it is intended to scrutinize the extent of the expansion and existence of the plantation on the lives and need of the pastorals in the area. Unless such expansion is carefully studied in comparison with their nomadic way of lives, any development or investment intervention may crumble or not last as envisaged. Therefore, this study will have a great contribution in understanding the actual need of the inhabitants and be also an input for correct policy formulation which is in compliance with actual context of the pastoral area..

2. RESEARCH METHODOLOGY

2.1. The Study Area

The Afar Region is located in northeastern part of Ethiopia sharing international border with Eritrea and Djibouti. In terms of area coverage, the Afar region is the fourth largest with a total area of 100,860 square km and is structured into 5 zones and 29 woredas. The population size is 1,559,001 (CSA, July 2011) of which about 92% live in rural areas while the remaining dwells in truck-stop urban centers. The Afar pastoralists raise mixed species of primary livestock, including camels, cattle, and keep supplementary herds of goats and sheep usually for commercial purpose. The northern part of Afar region, around the lower Danakil plain, is predominantly a semi-desert with thorny species of shrubs and acacia, which have developed dwarf forms and is not as such suitable for livestock production. The middle part of the region is characterized by arid climate where pastoralists are more mobile. In the southern part, the density of pastoralists is relatively high as this area is better in pastoral resources. Three districts (woreda) namely, Dubti, Assayata and Detbari which are found in the northeastern part of Afar region, has been covered in this study. These woreda were selected as the sugar factory and the sugarcane plantation is located.

2.2. Method of Data Collection

The study is based on both primary and secondary data. The primary data will be collected from individual households and focused groups using semi-structured questionnaire. The secondary data will be collected from the state farms in this case Tendaho Sugar Factory, NGOs and CBOs and the woreda administrative office in order to augment the primary data. Prior to formal survey, an informal survey will be conducted to have overall information

and to consider what variables need to be included during the questionnaire design. The following steps will be used to identify the sample households/pastoralists. First, using lists of household heads in each village of the woreda, pastoral households are to be stratified into three groups (poor, medium, and better off) with the help of the local elders. Thereafter, equal sample size will be randomly drawn from each stratum totaling 120 households for the interests of time and resource limitation. 0913795088

In addition to questionnaire-based interviews, a series of discussions will be held with elders and key informants along with the household survey.

2.3. Data Processing

The completed interview questionnaires shall be scrutinized, verified, edited and arranged in sequential manner. The findings of the research will be presented in a descriptive statistics and data is to be processed on SPSS statistical software.

2.4. Chapterization

Chapterization of this research endeavor is proposed to be presented, according to the objectives and hypotheses.

The first chapter shall be an introduction to the subject-matter of the present study. In this chapter, an attempt shall be made to describe the concept of pastoralism, its distinct characteristics as a way of living and how it differs from the sedentary settlement. To what extent state farming and its related settlement continuously affect it. Why its way of life is judged in comparison with the sedentary farming and what are the pushing factors driving policy makers to formulate policies in this perspective. Such and related issues are to be elaborated in the introduction part.

The second chapter shall deal with the literature review.

In the third chapter research methodology of the study and data collection is to be presented.

The fourth chapter shall explain results and discussion. The socioeconomic profile of the sample households taken for the present study are elaborated here. The extent of the state farming and the settlement on the socioeconomic and cultural condition of the pastorals will be presented.

The fifth chapter shall presnt conclusion and recommendation of the study.

3. WORK PLAN

	Activity	**Time of Execution**
1	Questionnaire development	January 25-30
2	Training of enumerators	February 1-5
3	Data collection	February—March, 2015
4	Data processing and report writing	April— May 2015
6	Submission of thesis	June 2015

4. LOGISTICS

4.1. Summary of Expenses

	Expenses	Birr
1	Personnel	**13200**
2	Per dime	**18000**
2	Transportation	**4000**
3	Fuel, oil lubricant and maintenance	**13000**
4	Utility and other service	**1000**
5	Stationery	**2896**
	Sub Total	**50896**
	Contingency (5percent)	**2545**
	Grand Total	**54641**

4.2. Detail Expense

Personnel

	Particulars	Number	Duration (in days)	Payment per day	Total
1	Supervision fee	2			6000
2	Wage for enumerators	4	15	120.00	7200
	Total				**13200**

Per Diem

	Particulars	Number	Duration (in days)	Payment per day	Total
1	Per diem for student	1	30	300.00	9000
2	Per diem for driver	1	30	300.00	9000
	Total				**18000**

Transportation

No.	Payable to	From	To	Means of transport	No of persons	Round trip cost	Frequency	Total cost/Birr
1	Student	A.A.	Dubti	Vehicle	1	1000.00	4	4000.00
	Total							**4000**

Fuel, Lubricants, and Vehicle Maintenance

No	Fuel	From	To	Km	Frequency	Total (including Survey)	Fuel per km	Required Fuel (liter)	Unit cost per liter in Birr	Total fuel cost
1	Benzene	A.A.	Awash Fentale	395	4	3000	.20	600	21	**12600**
2	Maintenance									**500**
3	Oil 2 litter									**200**
	Total									**13300**

Utility and Other Services

No	Item	Birr
1	Internet service	400.00
2	Telephone and postage expense	300.00
3	Printing expense	300.00
	Total	**1000**

Stationery

No	Item	Measurement	Amount needed	unit cost	Total cost
1	Toner	Unit	1	1000.00	1000.00
2	Flash disk	Unit	1	100.00	1000.00
3	Clip board	Unit	4	15.00	60.00
4	Pen	Unit	20	1.00	20.00
5	5Pencil	Unit	12	3.000	36.00
6	Lined paper	Pkt	1	80.00	80.00
7	Duplicating paper(for Questionnaire)	Pkt	7	100	700
	Total				**2896**

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