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INFLUENCE OF RESETTLEMENT ON PASTORAL LAND USE AND LOCAL LIVELIHOODS IN SOUTHWEST ETHIOPIA

[INFLUENCIA DEL REASENTAMIENTO SOBRE EL USO DE LA TIERRA DE PASTOREO EN LOS MODOS DE VIDA LOCALES EN EL SUROESTE DE ETIOPÍA]

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SUMMARY

This study was conducted in southwest Ethiopia with the aim of understanding the influence of resettlement on pastoral land use. Data were collected using a semi-structured questionnaire and focus group discussion. Respondents in non-resettled kebele reported that livestock keeping was the main source of their livelihoods. Our results showed that resettlement accelerated crop cultivation and contributed to shifts in land use due to the expansion of crop farming. Respondents mentioned that the condition of grazing resources and livestock economy were adversely affected. The community further claimed that ownership right and changes in resource use were additional deriving forces of conflict over resources. It was also indicated that the deteriorating condition of rangelands linked to resettlement greatly undermined local livelihoods and land tenure security. Recognizing the livelihood strategy of pastoral communalities and tenure security could improve sustainable use of natural resources and conservation of biodiversity. We suggest active participation of the local community to minimize the negative impacts of resettlement on the host community, while implementing resettlement as a strategy to secure food self sufficiency. A robust understanding in planning and implementation of resettlement is needed in consolidating concerns of the host community for minimizing conflict and securing land tenure.

Keywords: Resettlement; Rangeland Condition; Conflict; Land Tenure

RESUMEN

Este estudio se condujó en el suroeste de Etiopía con el objetivo de entender la influencia del asentamiento sobre el uso de la tierra para pastoreo. Los datos fueron colectados utilizando un cuestionario semiestructurado y grupos de discusion. Los respondientes no reasentados reportaron que el mantenimiento de la ganaderia fue su principal modo de vida. Nuestros resultados mostraron que el reasentamiento aceleró la agricultura y contribuyó a cambios en la tierra debido a la expansión de la agricultura de granja. Los respondientes mencionaron que la condición de los recursos de pastoreo y economia ganadera se afectaron negativamente. La comunidad dijo que derivado de los conflictos sobre los uso sobre los recursos generaron derechos de propiedad y cambios en el uso de recursos. Se indicó también que el deterioro de los pastizales unido al reasentamiento diminuye en gran media los modos de vida locales y la tenencia de la tierra. Reconociendo la estrategia en los modos de la vida de las comunidades pastorales y seguridad de los recursos se podría mejorar el uso sustentable de los recursos naturales y la conservación de la biodiversidad. Sugerimos la participación activa de la comunidad local para minimizar el impacto negativo del reasentamiento sobre la comunidad hospedera también implementar el reasentamiento como una estrategia de autosuficiencia alimentaria. Se necesita tener un completo entendimiento en la planeación e implementación del reasentamiento enfocado hacia la comunidad hospedera para minimizar los conflictos y la seguridad de la tierra.

Palabras clave: Reasentamiento; Condicion de los pastizales; conflicto; tenencia de la tierra.

INTRODUCTION

Natural disasters and anthropogenic factors are usually believed to induce resettlements of people to relatively safer locations (Dessalegn, 2003; Kassa, 2004). Natural disasters (e.g. drought and flood) and anthropogenic factors associated with population growth and land degradation are often implicated for the displacement of people and reasons for resettlement. Resettlement has become a dominant development discourse in many parts of a developing world (Kassa *et al*., 2005; Asrat, 2006). With increased frequency of drought and

famine, resettlement program is witnessed as a major development agenda in Ethiopia during the last few decades. Due to recurrent droughts and increased population growth, most rural parts of the country have remained relatively deprived with successive poverty and food insecurity. In addressing these critical problems, the Ethiopian Government has been launched and exercising various strategies as part of its rural development policy. Recently, resettlement of rural communities to various inhabitable areas is one of the many strategies as a key component of rural development (Asrat, 2006). In general, implementation of resettlement schemes has been focused on pastoral lands where population densities are assumed to be low with more underutilized lands. In contrast, arid and semi-arid regions with the uncertainty of rainfall are more suitable for extensive livestock production with frequent mobility to cope with the scarcity of resources than sedentary life. In dryland ecosystems, pastoralism represents an important way of life in supporting millions of inhabitants with no vacant land; where in reality pastoralists' way of life considerably endangered by resettlement of people.

The current study area is one of the typical examples of focal point for resettlement program of the country. The region is inhabited by pastoralists and agro-pastoralists, whose livelihoods have largely dependent on livestock resources with no other alternatives. Furthermore, these inhabitants are among the most marginalized and disadvantaged of minority groups in southwestern part of the country. For example, massive state sponsored resettlement programs have been taking place in Bench-Maji zone since the 1980s and expanded to the present study area as of early 2004 (Yonas, 2010). According to Wolde-Selassie (2003), a vast resettlement program was being implemented throughout Bench-Maji zone with a financial support from the regional Government. Earlier evidences (e.g. Elizabeth, 2003; Asrat, 2006) have also shown that in most parts of Ethiopia the socio-economic status of the rural community and environmental conditions have suffered considerably as a result of resettlement programs. Although much has been done on impact of resettlement programs in terms of livelihood, education, health, disintegration of settlers and their adaptation to a new environment, nevertheless, information is scarcely available regarding impacts of resettlement on the host community. It is also crucial to address the impacts of resettlement programs on the socio-cultural and ecological aspects of the host communities. Therefore, this study tries to investigate the influence of resettlement programs and newcomers on the socio-cultural and economic, as well as environmental aspects of the host community in Meinit-Shasha district of Bench-Maji zone. Furthermore, the paper in particular addresses the influence of resettlement on pastoral land use with a special focus on common property rights, local livelihood and resource management based on local perception. Focusing on the impact of state-sponsored resettlement program in pastoral areas of southwestern parts of Ethiopia, the objectives of this study were: (1) Understanding human-environmental impacts of resettlement; (2) Assessing the role of traditional institutions in the process of resettlement, adaptations and interactions among different ethnic groups; and (3) Understanding local strategies in terms of coexistence of the host community with newcomers, their livelihood conditions and resource management.

MATERIALS AND METHODS

Study área

The study was conducted in Meinit-Shasha district of Bench-Maji zone, Southern Nation Nationalities and Peoples Regional State (SNNPRS), Southwest Ethiopia. It is located approximately 617 km southwest of Addis Ababa (the capital city of the country) and covers an area of approximately 2770 km^2. The altitude of the study district lies between 800 and 1500 m.a.s.l. with diverse landscapes ranging from rolling plains to occasional hills and mountains (Yonas, 2010). The area receives a bimodal type of rainfall with an average annual precipitation of 850 mm. The mean annual temperature varies from 20ºC to 40ºC (Yonas, 2010). The natural vegetation of the area commonly consists of shrubs and grasses mix together with numerous large trees (*Entada abyssinica* and *Acacia* species). The vegetation varies with rainfall from tropical montane rainforest to savanna grasslands. However, the forest exists in very small pockets with wild coffee to the west of the district. The total population of the area is estimated to 44766 (FDRE, Population Census Commission, 2008).

Survey design

Two adjacent kebeles, with a total number of 686 (335 in Eara and 351 in Bass) households, were selected purposely for this particular study among 27 kebeles in Meinit-Shasha district. The first kebele (i.e., Bass) was selected because it was a focal point for the resettlement schemes of the Ethiopian Government. The second kebele (Eara) was adjacent to Bass, with a relatively similar number of household and livestock as well as comparable landscape but free from resettlement intervention. We conducted key informants' interviews using a Participatory Rural Appraisal (PRA) tools (Mercado, 2006) to gather information related to resource availability and distribution, access to land and ownership, land use type, impact of resettlement on the host community, perceptions of socio-cultural, economic and environmental

changes. In addition, information related to the emerging challenges of socio-cultural and economic aspects of the pastoral communities and their production systems were gathered following the same procedure. All of our respondents were male headed households aged between 21 and 72. Females were not considered in this interview due to the established traditional rules of the community. According to *Meinit's* traditional rule "women are never allowed to communicate with any man in close contact except her husband, even if she is a widowed or divorced. A man and woman can only talk to each other while he is being outside of a house and she is inside or when they are at a distant facing/walking in opposite directions. Again this is only possible for men and women within the same ethnic group and impossible for those from different ethnic groups". As a result, women in the area were not willing to give any kind of information related to their community's and/or environment, although the enumerator could be a woman. The information generated through the above technique was used as a basis for further development of a questionnaire to quantify the most important parts of the study. For the questionnaire interview, a household was taken as a unit of analysis. Before conducting the formal survey, the structured questionnaire was pre-tested and necessary adjustments were made accordingly.

Data collection

For the socio-economic study, households were chosen randomly from the two kebeles and individual interviews were carried out. The interview was administered based on complete lists of (agro)-pastoral households among the total target population as indicated above. Given the relative homogeneity of households in terms of socio-economic characteristics, land use and production systems, 47 households per kebele were interviewed. In our households' selection and the survey work, we excluded those households from newcomers and only concentrated on the host community to understand challenges they faced as a result of resettlement programs in the area. The survey questionnaire was consisted of a wide range of issues with close-ended questions. These included household characteristics, sources of income, farming practice and land use pattern, rangeland management and utilization, access to range resources (pasture and water), issues related to mobility, role of traditional institutions. Aspects of communities' perception on resettlement, emerging challenges and opportunities following resettlement and resource related conflicts were considered at the time of interview. Enumerators were trained to conduct the formal survey. Generally, the selection of enumerators was based on their knowledge of the study areas and local language. In addition, group discussion using check list questions was held with key informants to gather information on the changes related to customary rights and traditional range management practices, potential risks of resettlement programs on the management of natural resources and local livelihoods. This was accomplished prior to and in parallel with the households' survey.

Data analysis

The socio-economic data were summarized and analyzed using SPSS (Statistical Package for Social Science, version 12) software. Descriptive statistics such as mean, percentage, standard deviation and graphs were also used to summarize most of the information. Paired t-tests were used to test the difference between group comparisons. Livestock production constraints, causes of rangeland degradation and resource use conflicts were ranked by calculating index values. This is because households were used to mention different parameters according to their consequences. Index values were computed using the principle of weighted average according to the following formula as employed by Musa *et al*. (2006):

$$\text{Index} = R_n*C_1+R_{n-1}*C_2+\ldots+R_1*C_n/\sum R_n*C_1+R_{n-1}*C_2+\ldots+R_1*Cn;$$

Where: R_n= Value given for the least ranked level (example if the least rank is 5th rank, then R_n=5, R_{n-1}=4, and ..., R_1=1), C_n= Counts of the least ranked level (in the above example, the count of the 5th rank = C_n, and counts of the 1st rank = C_1).

RESULTS AND DISCUSSION

Resettlement and its effect on pastoral modes of livelihood

Our respondents reported that livestock sale followed by crop was their major source of income in Bass (i.e., resettled kebele). Households in the resettled area relied on sale of livestock products and crops. Overall, about 21.3% of our respondents were exclusively dependent on income from livestock sale in the resettled kebele. On the other hand, the majority of households (70.2%) in the non-resettled kebele (i.e., Eara) mentioned that they used to generate their income from sale of livestock (Figure 1). There was a significant difference in their major sources of income between the two community members from resettled vs. non-resettled kebeles (i.e., Bass vs. Eara). Respondents were also reported that they engaged in multiple sources of income generating activities to support their livelihoods.

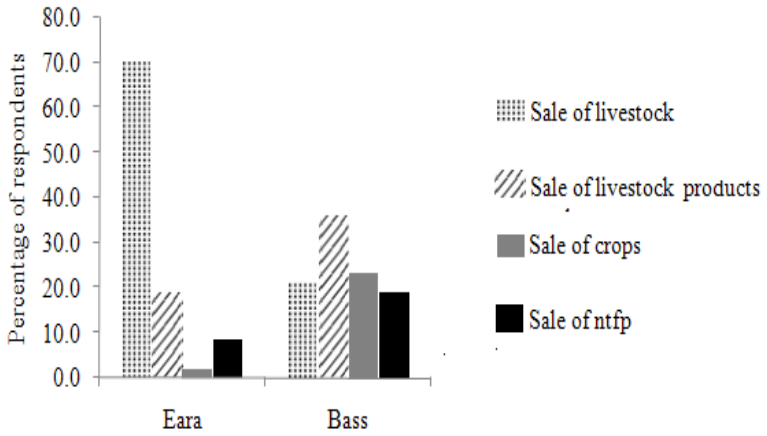

Figure 1.- The main sources of income for households in two kebeles of Meinit-Shasha district, southwest Ethiopia.

As shown in Figure 1, the economic importance and value of crop for households from Eara were low and not important as that of livestock economy. Thus, differences in major sources of income between the resettled vs. non-resettled kebeles could partly reflect the influence of resettlement in shifting the type of production system in which the community engaged in. Overall, our results indicated that households in the resettled kebele were more involved in mixed production system than those in non-resettlement kebele. This is probably as a result of alienation of communal lands to resettlers following resettlement programs. Allocation of pastoral lands to resettlement programs reduced the capacity of rangelands and limited herd movement during the dry season, thereby affecting livestock production. As a result households in the resettled kebele were forced to engage in a range of income generating activities to support their subsistence, than households in the non-resettlement kebele. Such a pattern has previously reported by Ayalew (2004) that suggested that the more pastoral households had put under pressure, the higher the diversification of their income would be, including crop farming and other off-farm activities.

Livestock holding and major constraints of livestock production

Mean livestock in terms of Tropical Livestock Unit (TLU) per household was lower for the resettled kebele than non-resettled kebele (Table 1). Although cattle were the dominant livestock species in both kebeles, our respondents mentioned that they were involved in the production of small ruminants and chicken. Generally, the mean number of cattle was higher in the non-settled kebele than resettled kebele. This could be attributable to the reduction of communal rangelands for livestock grazing under increased resettlement. Our respondents from resettled kebele reported that they used to adjust the size of their herds in favor of small ruminants and chicken to cope with the declining tendency of grazing resources. This is in accordance with Yayneshet and Kelemework (2004), Devereux (2006), who suggested that pastoralists are knowledgeable in dealing with their natural environment and making adjustments in herd size as source of income and diversifying asset to cope with various pressures. Overall, the quality and quantity of available land for grazing was under pressure, while feed availability for stock was in a decline despite differences between kebeles. Households from both groups ranked livestock production constraints differently in perspective to their livelihood and local situation. As shown in Table 2, shrinkage of grazing lands followed by inadequate feed, rangeland degradation and disease were ranked on the scale of 1 to 4 on average.

Households from the resettled kebele reported that there were major problems in terms of rangeland degradation, lack of grazing land, inadequate feed supply and livestock disease in order of importance. Whereas, our respondents from the non-settled kebele listed inadequate feed supply as a major constraint to livestock production followed by land degradation, reduced grazing land and livestock disease in terms of priority. The most likely reason for constraints indicated by respondents from the resettled kebele could be fragmentation of rangeland coupled with crop land expansion that resulted in reduced grazing capacity and confinement of livestock. This might also be linked to the limitation of livestock mobility following resettlement that forced households in the resettled kebele to prioritize rangeland degradation and lack of grazing land as important constraints. On the other hand, lack of additional feed supply apart from free grazing could probably be the reason for households from the non-settled kebele to prioritize inadequate feed supply as important constraint for livestock production. Overall, our results are in agreement with the findings of Kassa *et al*. (2005) who suggested that additional feed supply is a major constraint for livestock production. As

indicated in Table 3, although range degradation is a cumulative process induced effect in the rangeland environment, it is also possible to comprehend that lack of grazing lands and inadequate feed supply are management sensitive constraints. From this, one can clearly appreciate the need for careful and multi-dimensional approach to address the different pressing issues linked to the impact of resettlement programs on the host community.

Table 1. Mean (±SD) livestock and land holding (±se) per household in Meinit-Shasha district, southwest Ethiopia (respondents: Eara=47, Bass =47 and Overall=94).

Livestock holding by species	Kebele		Overall
	Eara[1]	Bass[2]	
Livestock (TLU)[3]	24.36±17.76	20.26±14.82	22.31±16.40
Cattle	21.68±16.24	17.50±13.20	19.59±14.87
Goats	1.73±1.16	1.54±1.08	1.63±1.12
Sheep	0.95±0.78	1.22±0.90	1.09±0.85
Chicken (No)	11.75±6.15	13.32±10.56	12.53±8.63
Land holding and use type			
Pasha	5.23 ± 0.39a	2.96 ±0.21b	4.10 ±0.25
Cultivation	2.11 ± 0.76a	2.98 ±0.16b	2.54 ±0.10
Homestead	2.11 ±0.45a	2.04 ±0.30a	2.07 ±0.27
Total	6.57 ±0.40a	4.98 ±0.21b	5.78 ±0.24

[1]non-resettled kebele, [2]resettled kebele, [3]TLU = 250 kg. The TLU values for different species of animals is: 0.7 for cattle; 0.1 for goat/sheep (ILCA, 1992)

Table 2. Respondents' opinion related to constraints to livestock production in Meinit-Shasha district, southwest Ethiopia (number of respondents: Eara = 47 and Bass = 47).

Constraints	Bass[1]		Eara[2]	
	Index value	Rank	Index value	Rank
Inadequate feed	0.24	3	0.35	1
Lack of grazing land	0.30	2	0.27	3
Rangeland degradation	0.36	1	0.28	2
Disease	0.10	4	0.10	4

[1]resettled kebele, [2]non-resettled kebele.

Landholding, land use and ownership preference

According to our respondents, the current land holding pattern in the study area included: cultivated lands, homestead lands and fallow lands locally referred to as *Pasha*. This indicated that the traditional communal grazing land was owned collectively (Table 1). In the present study, the average land holding per household showed higher values as compared to other pastoral and agro-pastoral areas of the country, i.e., 2.53 ha for Babile Erer valley (Nigussie, 2008) and 2.7 ha for Boke rangelands of west Hararge (Wendwesen, 2009). This might be one of the reasons for implementing resettlement of large number of farmers in the study area assuming that land is more abundant in pastoral areas. However, as illustrated in Table 1, the average land size for a household in the resettled kebele was significantly ($P < 0.05$) lower than a household in the non-resettled kebele. This may perhaps due to the fragmentation of communal rangelands and creation of private *Pasha* lands following the resettlement program together with the expansion of crop cultivation by resettlers through informal land grabbing. Similarly, Misganaw (2005) has reported that the increase in population following state organized resettlement had resulted in the reduction of land holding per a household in most resettled areas of the country.

Key informants' in the resettled kebele believed that prior to resettlement program almost all the land in the area was under communal ownership. Respondents' perceptions also indicated that livestock mobility over a wider area of rangeland in the past allowed them access to diverse resource exploitation and better way of life than today. However, at present the expansion of crop cultivation by resettlers and reduction of communal rangelands contributed to a decline in livestock

productivity greatly affecting households' livelihoods. Moreover, interviewees mentioned that they were not sure about the future of their rangelands, whether it could be secured and managed according to their traditional system or not. As a result, some pastoralists were involved in crop cultivation on small plot of land to cope with the declining tendencies of grazing resources. This observation is in accordance with the study by Ayalew (2004) that reported that alienation of pastoral lands in East Shoa zone of Oromiya for commercial and resettlement programs by the Ittu resettlers from West Hararghe forced the Kereyu pastoralists to engage themselves in crop cultivation as copping mechanism.

With regard to the type of land ownership and future management of rangelands, the majority of households (77% in resettled kebele vs. 83% in non-resettled) preferred a communal type of ownership (Figure 2). The most likely reasons for their preference for communal type of ownership might be due to concerns for their children and the future generation where traditionally "young men must have access to land when they get married". Their way of thinking might also be related to sustainable use of arid rangelands and conservation issues. The other possible reasons would be due to the fact that communal ownership allows them a freedom of movement in terms of livestock access to diverse grazing resources in space and time. Moreover, communal ownership probably allows the herding community to use free lands for shifting cultivation whenever the need arises. Overall, our findings are similar to the work of Abule *et al*. (2005) in Afar and Karayu areas that suggested that communal type of ownership might help herders to cope with the variability of climate and resource supply in space and time. On the other hand, agro-pastoralists from the resettled kebele mentioned that they preferred individual ownership for various reasons. First, they intended to secure the land for the younger members of their community as they perceived that the younger generation would be deprived of land in the future due to pressure from settlers. The second reason mentioned by our respondents was that to avoid pressure on their environment from resettlers. Generally, respondents mentioned that there was a growing mistrust among the community members on local administrators whose decisions were biased and dominated towards own relatives of some clans who can also influence administrative decisions. According to our respondents, such mistrust as a result of biasness in decision making is probably the main reason for the growing interest in private ownership of the land in non-settled kebele.

Table 3. Measurements taken during feed shortage and water souresces available in Meinit-Shasha district, southwest Ethiopia (number of respondents:Eara=47, Bass=47 and Overall=94).

Measurements	Respondents (%)		
	Eara[1]	Bass[2]	Overall
Browsing trees	42.6	61.7	52.1
Moving animals	46.8	12.8	29.8
Grazing on *Pasha*	10.6	25.5	18.1
Water resources			
Permanent river	63.8	70.2	67.0
Streams	19.2	14.9	17.0
Ponds	17.0	14.9	16.0

[1]non-resettled kebele, [2]resettled kebele

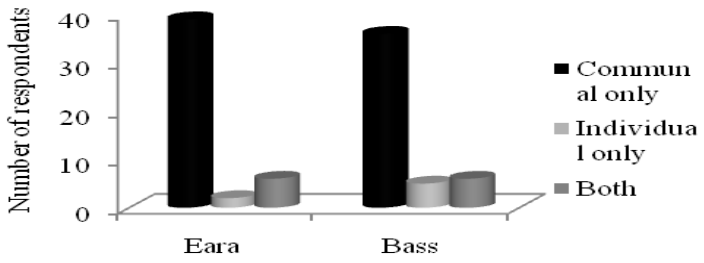

Figure 2.- Types of ownership preferred by the households in Meinit-Shasha district, southwest Ethiopia.

Our respondents reported that they traditionally used different strategies for managing rangeland resources and pasture improvement that included: enclosing of the land as *Pasha* (63%), seasonal herd movement (20%) and rangeland burning (17%) (Figure 3). According to respondents, enclosing the land as *Pasha* was a type of management that was widely practiced under traditional rangeland management in both kebeles. It was also mentioned by our informants that ownership over *Pasha* was inherited. This type of privately owned land was limited at a family level within the communal land use system for dry season grazing reserve and/or cropping in the form of fallow. Our results are in agreement with the work of Lishan (2007) who reported that agro-pastoralists in eastern part of Ethiopia also owned individual enclosures for the purpose of dry season grazing and crop cultivation.

Indigenous resources management and access to resources

Traditionally, herd mobility was one of the strategies used by the local people to make use of diverse range resources. Past herd movement and mobility was only limited by ethnic territories with infrequent access to neighboring districts of Kaffa zone and Gambela region (personal communication by Yonas Berhanu, Dimma district). Likewise, our respondents mentioned that access to rangeland resources by other pastoral groups was allowed during the critical seasons/years. Respondents further emphasized that this was based on the decision of clans' leaders following a meeting and negotiations that allow access of one's resources to others. Such decision is usually confirmed by "blowing a local instrument made of horn". Once the "horn was blown" as expressed by respondents, herders can freely move their herds and use any part of the grazing territory without restriction. Similarly, Niamir (1999) has reported that herders from the same social unit can freely make use of the available grazing territories by confining themselves to the areas of rangeland they best know and prefer to stay with the same group of people as the case in many pastoral areas of Africa.

Although herders were well adapted to such traditional strategies, as mentioned by our key informants, the pastoral way of life is currently constrained by the expansion of crop farming and privately owned area enclosures linked to the impact of resettlement programs. While communal land tenure seems an essential form of land use, this could not assure the sustainability of traditional range management practices in the area. Respondents' perception suggested that resettlement had already created disintegration of grazing cooperation, resulted in failure of social controls, and restriction of herd movement particularly in the resettled kebele as compared to non-settled kebele. Earlier studies (Kejela *et al*., 2006; Angassa, 2007; Angassa and Oba, 2008) from other pastoral regions of Ethiopia have reported similar challenges faced by the herding community.

Respondents mentioned that natural pasture and trees were considered as major sources of feed for livestock in the region. In general, seasonal fluctuation of feed in space and time was one of the main constraints, where mobility becomes important as mentioned by our respondents. Furthermore, respondents mentioned that feed supply was inadequate both in quality and quantity in resettled areas. Indeed, all households reported that feed for their animal was inadequate mostly during the dry season, although they developed certain mechanisms similar to other pastoral groups in the country to deal with feed scarcity. Accordingly, our results indicate that most households in non-resettled areas used to move their herds so as to efficiently utilize browse resources and twigs. According to our respondents, those animals left behind used to graze on reserved pasture (*Pasha*) during critical time of the year. However, in the resettled kebele households were mainly relied on the use of browse species and reserved pastures (*Pasha*) where herd mobility was restricted. As reported by households, mobility and access to grazing resources were highly restricted by the influence of resettlement (Table 3).

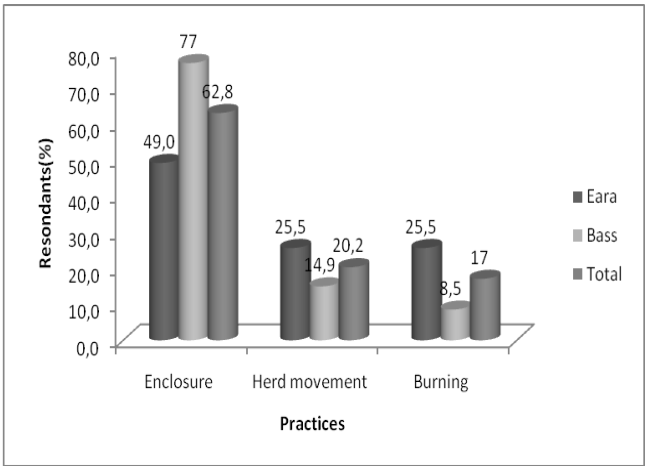

Figure 3.- Traditional range management practices in Meinit-Shasha district, southwest Ethiopia

With regard to water resources, households responded that sources of water included: rivers (67%), streams (17%) and ponds (16%) and these were the main sources of water for human and livestock use in the study area. As per households' responses, access to ponds and streams was limited to human use and selected group of animals such as calves and weak animals, while these resources were owned and managed communally in both kebeles (Table 4). According to key informants, management of ponds and streams were usually at the village level that requires fencing and timely cleaning. Despite these, ponds and streams were indiscriminately utilized and tended to destruction due to the impact of resettlement. This indiscriminate utilization of resources by newcomers might be either due to lack of respect for local institutions and norms or they might never be informed at all how local institutions govern resource utilization as being adopted by the host community for generations.

Perception of rangeland condition and degradation

Discussion of rangeland condition took the form of analysis in terms of differences in the present status of range between resettled and non-resettled kebeles. Using participants own criteria, rangeland condition was rated on the scale of fair, poor and presence of degradation (Table 4). Pastoralists involved in group discussions developed and prioritized the criteria for range condition evaluation and causal factors responsible for degradation. Accordingly, four indicators were developed and prioritized. Indicators used to evaluate rangeland condition included: availability of feed, better animal performance, security, i.e., conflict free areas and access to settlements (Yosef, 2007; Nigussie, 2008). Communities' evaluation in non-resettled kebele showed that the rangeland status was in fair condition. Conversely, the majority of respondents in resettled kebele rated their rangelands as poor condition (Table 4). Elders' observations suggest that resettlement programs greatly affected indigenous people's capacity in rangeland management and their strategies for survival. Our respondents also claimed that settlers' ways of resource utilization were destructive to the natural environment and resource base of the host community as they were not abide by the local institutions in resource utilization. A similar situation has also been reported by Abule *et al*. (2007) in the Awash valley of Ethiopia, suggesting that the traditional way of resource management was eroded due to the pressure on pastoral land use.

Perceptions of degradation by our respondents from both kebeles were similar as indicated in Table 6. Households from resettled kebele concerned that the expansion of farmlands both by resettlers and the indigenous community were more destructive and promoted land degradation. Moreover, our respondents believed that land use practices promoted by resettlers have probably attracted the attention of the indigenous community members for their involvement in crop cultivation and its expansion in the rangelands. Therefore, land degradation related to overgrazing, settlement, expansion of farmlands and deforestation were an emerging issue as indicated by households from the resettled kebele (Table 5**).** Generally, respondents' perceived that resettlement is a major factor in causing environmental degradation. This is due to the fact that newcomers require more land for crop cultivation and grazing, where they may also encroach into forest areas by limiting herders' access to extensive land use for grazing. A similar study by Wolde-Selassie (2002) showed that excessive land holding by resettlers for different purposes resulted in severe degradation of the natural vegetation in areas occupied by newcomers

Table 4. Rangeland condition as perceived by respondents in Meinit-Shasha district, southwest Ethiopia (number of respondents: Eara=47, Bass=47 and Overall=94).

Condition	Respondents (%)		
	Eara[1]	Bass[2]	Overall
Excellent	4.3	0	2.12
Fair	95.7	10.6	52.1
Poor	2.0	89.4	45.7

[1]non-resettled kebele, [2]resettled kebele

Table 5. Causes of rangeland degradation as ranked by agro-pastoralists in Meinit-Shasha district, southwest Ethiopia

Causes	Eara[1]		Bass[2]	
	Index	Rank	Index	Rank
Expansion of farm land	0.29	1	0.38	1
Over grazing	0.24	3	0.25	2
Harvesting of wood and NTFP	0.28	2	0.18	4
Expansion of settlement	0.18	4	0.19	3

[1]non-resettled kebele, [2]resettled kebele

Respondents' perception on resettlement

The majority of our respondents mentioned that they were not consulted and had no idea of settlement plan by the Government prior to implementation of the ongoing resettlement program in their kebeles. However, few respondents mentioned that they had pre-hand information related to resettlement through informal communication either from informed community members or kebele administrators. Ignorance of local participation and lack of consultation from the initial planning stage to implementation phase was probably the reason for lack of awareness by households in the resettled Kebele. Elders from the non-resettled (Eara) kebele reported that they were not informed despite their kebele was adjacent to the resettled kebele. A similar study from the western part of Oromiya by Dessalegn (2005) has shown that top-down decision on resettlement programs and land alienation were solely made by government officials with no consultation and awareness of the host community suggesting the many implications on the livelihoods of the herding communities.

Few of our respondents were also blamed local administrators for their injustice decision and imprecision of land demarcation related to resettlement that respondents perceived as a deliberate action of local administrators. This is probably intentional because local administrators might have the view that settlers will improve the production system as opposed to the indigenous community by focusing on crop farming that eventually transformed the pastoral mode of production among the Meinit community. As mentioned by respondents, since the inception of resettlement program, large numbers of immigrants had been moving to the Bass kebele (Table 6). The continuous influx of large numbers of immigrants was also confirmed by key informants and district administrations during the focus group discussion. Generally, participants reported that numbers of immigrants were increasing from time to time. According to respondents' opinion, these immigrants were from different parts of the country and encouraged by districts' administrators as voluntary resettlers where alienation of land was with full recognition of zonal administrators similar to those government sponsored resettlers. For instance, Gebre (2001) has reported a similar history suggesting that government sponsored resettlements was followed by spontaneous increase of immigrant settlers. This phenomenon had resulted in increased demand and appropriation for land by immigrant settlers at the expense of the host community with adverse effects on natural resources. As a result, the majority of our respondents (87.2%) in resettled kebele strongly disagreed with the concept of resettlement. The present result is also in agreement with the report of FSSE (2005) that suggested that host communities in most resettled areas of the country have much complained about effects of resettlement programs on their means of subsistence. The results of our study showed that only 12.8% of our respondents agreed with the idea of resettlement, with the hope that they might be benefited from the program in terms of agricultural inputs and access to social services (Figure 4). Indeed there were improvements in terms of infrastructural and other social services.

Generally, it seems that the participation of local people is an important step in achieving resettlement objectives, where local people have the power and willingness to decide on how their land should be used, alienated and also cohabit with settlers (Kassa, 2004). According to Gebre (2005) such a decision may require public education and awareness through effective communication and respect for local knowledge so as to address concerns of the host communities. Respondents reported that land alienation was mainly focused on communal and protected forest lands without consultation. As a result, the natural forests and communal grazing areas were fragmented and depleted putting local people's livelihoods at risk. Similarly, Assefa (2005) pointed out that dispossession of communal grazing lands and protected forest areas due to resettlers in Chewaqa, Gulelle Nonno and Bilate resettlement areas affected the livelihood of the host community.

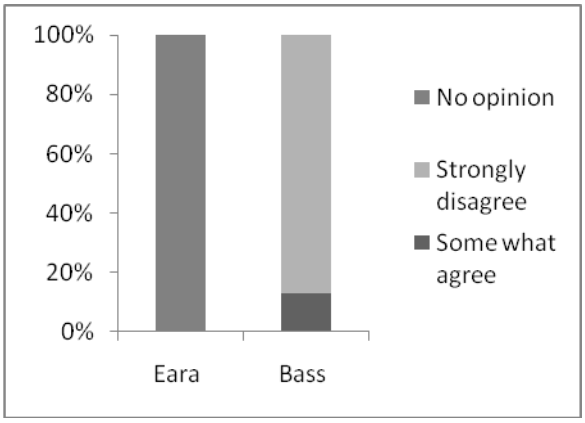

Figure 4.- Level of agreement on the resettlement in the area in Meinit-Shasha district, southwest Ethiopia

Resettlement and impacts on pastoral land use

At the time of our survey, the local communities had already involved in rain-fed agricultural practices such as pepper and sorghum production following resettlement in the area. These activities were performed by the community through clearing and seed broadcasting without the practice of tillage. Cultivation was begun by pastoralists in the area perhaps as a result of increased pressure on the communal grazing lands. Following resettlement, allocation of land and farm expansion have displaced and disrupted the traditional way of land use. About 42.6% of our respondents in resettled kebele perceived that the expansion of crop cultivation was aggravated by privatization and loss of communal rangelands attributed to settlement program. On the other hand, some respondents indicated that there was a complete conversion of protected areas such as *Pasha* land (27.7%) and forest land (10%) to crop lands. In general, 19.1% of the respondents stated that the communal grazing lands have already deteriorated (Table 6). The attempt of practicing crop farming may be an indication of land use change and tenure arrangement. Respondents' indicated that they had concerns over the remaining pocket areas of land that local administrators would still think to allocate for resettlement program. Similar observation was reported by Ayalew (2004) among the Kereyu pastoralists suggesting that these pastoral communities were put under pressure due to the impact of investment activities and expansion of farming in the area. Conversely, all respondents in non-resettled kebele responded that they did not observe any significant change in terms of land use, which perhaps attributed to the absence of external intervention.

Resettlement, resource use and community relations

The local communities in the study area had their own indigenous institutions that existed through mutual assistance for generations to keep up with their homogenous cultural linkages. In the opinion of our respondents, the establishment of indigenous institution was to facilitate inter-community support in terms of socio-economic integration, resources management and conflict resolution. Furthermore, informants indicated that culturally every member of the community must be organized under the framework of traditional institution called "*Neirie*". Our respondents mentioned that resource use regulation, conflict resolution, defending clans' interest and setting traditional laws were major duties performed by the traditional institutions (Table 7). Similarly, WISP (2007) reported that in other pastoral areas of East Africa, traditional institutions play a key role in local customary laws and handling all socio-cultural and environmental aspects based on clans' ties and social relations. Our respondents from both kebeles mentioned that traditional institutions were being eroded as they loss their functional roles and cultural values due to external interference and challenges from different institutions. Consequently, interviewees perceived that interventions from government structures and others institutions such as religious institutions were some of the influences on traditional institution (Figure 5). For example, Bezabih *et al*. (2005) has reported a similar result from other pastoral culture in terms of the impact on *Gada* institution from religious and state institutions.

Table 6. Communities' perceptions on immigration and effects of resettlement on their land use in Meinit-Shasha district, southwest Ethiopia

Variable	Respondents (%)		
	Response	Eara[1]	Bass[2]
Awareness	Yes	0	6.4
	No	100	93.6
Reason for no awareness			
No consultation		0	93.6
No resettlement program		100	0
Not interested to know		0	0
Presence of immigration following the resettlement	Yes	0	100
	No	100	0
Effects on land use			
Individualism through crop farming increased		0	42.6
Pasha lands were converted to farmlands		0	27.7
Forest lands converted to crop and grazing lands		0	10.6
Communal grazing lands reduced		0	19.1
No change		100	0

[1]non-resettled kebele, [2]resettled kebele

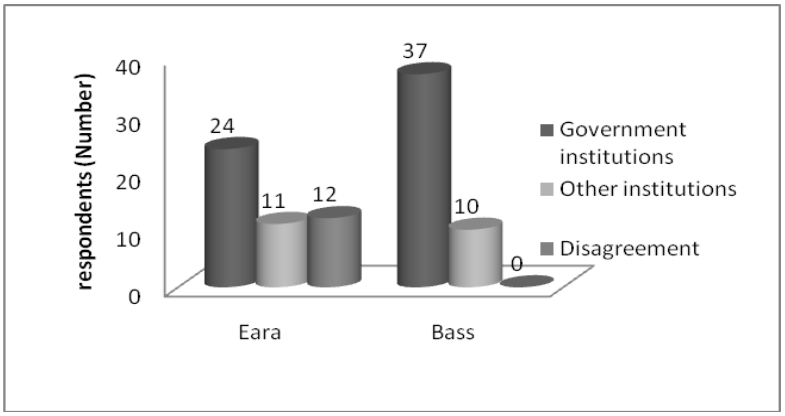

Figure 5.- Challenges faced by traditional institutions in Meinit-Shasha district, southwest Ethiopia

Resource use conflict could be a phenomenon associated with land degradation between the herding and farming communities under increased cultivation and declining grazing resources (Table 8). In this paper, resource use conflict was conceptualized as the interaction between resettlers and the host communities, as well as among agro-pastoral and pastoral communities due to the overlap of interests of the various groups. Usually, interests of conflicts may arise from competition on common pool resources such as land, pastures and water points (Table 8). Respondents indicated that they involved in various resource use conflicts for years with the neighboring communities such as the Surma ethnic group. Generally, respondents mentioned that resource use conflicts between resettlers and indigenous herders were frequent in both kebeles. Wolde-Selassie (2002) argued that resettlement can cause radical changes in terms of communities' access to resources, livelihood options, and their social relationships.

Generally, fragmentation of the communal rangelands and its conversion to crop lands by resettlers has brought radical changes and destruction on pastoral environment and livelihood strategies. Pastoralists claimed that alienation of grazing lands to resettlement had disrupted livestock mobility, while promoting sedentarization led to conflict over limited resources. Generally, respondents' believed that conflict over resources was increased over the last few years following resettlement program (Table 8). Spontaneous privatization of land through the expansion of crop cultivation, demarcation of private pastures, ownership right and resettlements were believed to be major contributing factors to conflict over resources (Table 8). Our respondents indicated that

expansion of crop lands and land ownership right were the major causes of conflict in the resettled kebele and non-resettled, respectively. Differences of interests in land use between pastoralists and resettlers might also reflect how communities' social relationship and way of life could be affected. For example, resettlers were promoting crop farming, whereas for the Meinit pastoral community, cattle herding and communal land use were the most important way of life. Under the current land use system, indigenous communities were endangered as a result of diminishing resources where livestock movement and access to pasture were greatly restricted.

The role of community elders is crucial in conflicts management and setting rules for reducing tensions in their localities. For instance, most respondents (91.5%) in the non-settled kebele mentioned that traditional leaders' roles were extremely important for the stability and security of the community as elders shoulder a major arbitrator for conflict management and resolution. However, our informants in the resettled kebele reported that the traditional way of conflict resolution was no longer practiced as conflicts among different interest groups were handled and resolved through government structures by kebele administrators with little participation of local elders.

Therefore, resettlement threatened the rights and access of indigenous community to open pasture by displacing them from their original grazing lands that belonged to the community through generation and/or tradition. Similarly, Wolde-Selassie (2002) has reported that interests of conflicts and competition over resources between resettlers and the traditional Gumuz way of life had led to a major conflict and end up with loss of lives.

Table 7. Role of traditional institutions, intensity of conflict and institutions involved in conflict resolution in Meinit-Shasha district, southwest Ethiopia (respondents: Eara =47 and Bass 47).

		Respondents (%)	
Variables	Activities	Eara[1]	Bass[2]
Role of local institutions	Regulation of resource use	44.7	70.2
	Conflict management	36.2	14.9
	Defending clan interest	8.5	4.3
	Setting traditional laws	10.6	10.6
Trends of conflict	Increased	93.6	100
	Decreased	6.4	0
Institutions involved	Local leaders and culture	91.5	14.9
	Kebele administration	8.5	85.1
Court		0	0

[1]non-resettled kebele, [2]resettled kebele

Table 8. Causes of conflict as ranked by the HHs (respondents: Eara=47 and Bass=47).

Causes	Eara[1]		Bass[2]	
	Index	Rank	Index	Rank
Ownership right	0.25	1	0.11	5
Water and pasture use	0.21	2	0.10	6
Enclosed area	0.17	3	0.20	3
Expansion of crop land into communal lands	0.14	4	0.22	2
Farmland and grazing land demarcation	0.13	5	0.12	4
Settlement area	0.11	6	0.24	1

[1]non-resettled kebele, [2]resettled kebele

CONCLUSION

Increased immigration from neighboring zones and the central highlands of the country following resettlement program are potential challenges for the years to come. Privatization of communal rangelands, expansion of crop lands and restricted mobility in search of pasture were some of the emerging issues that led to frequent conflicts. There was a further fear of the host community that their

remaining lands could be delineated for continued resettlement program. We confirmed that resettlement greatly affected communal grazing resources and the pastoral sector, as well as vast areas of forest resources. These situations further contributed to the destitution and poor living condition of the host community who largely depended on livestock for their livelihoods. Continued encroachment of rangelands by newcomers resulted in the reduction of grazing lands and access to communal resources. Overall, alienation of communal rangelands to resettlement undermined the collective role of pastoral land use and facilitated the conversion of rangelands to crop cultivation. Given the condition of rangeland degradation and cultural erosion with the resultant impact on local livelihood and community's wellbeing, one can safely argue that the future threat on ecosystem and indigenous communities is eminent. It was observed that resettlement was likely to exacerbate and complicate situations, not only by creating crises in environmental conditions but also by disrupting the adaptive capacity of the host community to impacts of climate change and economic responses that further impact communities' social relations.

The implication of the current study is that in any future development endeavors participation of the local community from initial planning through implementation, monitoring and impact assessment is crucial to minimize the negative impact on the host community and local environment. It seems that effects of land alienation and resettlement interventions that upset the traditional patterns of land use should be reconsidered. We concluded that the current resettlement program weakened the effectiveness of traditional range management and land use practices of the inhabitants with adverse consequences on the environment.

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