

## **Global Leadership Training Programme in Africa 2016**

### **Activity Report of Field Research**

**The role of indigenous animal-drawn transportation in Southern Ethiopia;  
Change of the use of domestic animals**

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## I . Summary

### English Summary

In Ethiopia, people use a cart called *Gari* to transport objects and themselves. It is drawn by horses, donkeys and mules, and the population of these animals of Ethiopia is the third largest in the world. In conducting the investigation of *Gari*, I selected Alaba as a research site with the recommendation by the local people. The purpose of this preliminary survey is to grasp the outline of Alaba Town, the characteristics of *Gari*, the relationship between equine animals and local residents, and the activities of NGO that appeal for the welfare of animals.

In Alaba Town, I interviewed the Livestock Office, Transport Office, NGO, and so on, gathering basic information about Alaba. I visited a repair shop involved in the manufacture of *Gari*, recorded the basic structure of *Gari*, and carried out a traffic survey by stationary observation in order to gather such information as kind and number of *Gari*. I surveyed the activities of NGO through interviews and participation in the meeting. I used English and Amharic languages during the research.

Regarding the type and structure of *Gari*, it could be roughly classified into three categories. This field survey allowed me to illustrate that *Faras-Gari* drawn by horses is an important means of transport for women who purchased food items with large bags at a market and men who sell legitimate chat in Alaba. In the traffic volume survey carried out on Thursday at the market, 255 *Gari* passed in 225 minutes, 88% of which were *Ahiya-Gari* and the rest are *Faras-Gari*. It was revealed that *Ahiya-Gari* drawn by donkeys for transporting baggages plays an important role as a means of transportation for the market.

*Ahiya-Gari* consists of up to three traction animals, and it is important to consider the relationships between the number of animals pulling *Gari* and the traction in order to reduce the load on animals. The possible reason for the popularity of *Ahiya-Gari* is because the donkeys are relatively easy to obtain and care than horse. Besides that its wide bed is convenient to transport many luggage/people to the market.

This field survey allowed me to demonstrate that *Ahiya-Gari* has an important role of the transportation of luggage to the market and the movement of people in Alaba. Furthermore, it was clarified that as a result of the activities of NGO which provide places of rest for traction animals, there were opportunities for local residents to have guidance and training for protecting the welfare of animals. Through the further research, I will examine a *Gari* management system that reflects voluntary consideration for animals when people using *Gari* in Alaba. I believe it enables me to examine the possibility of contributing to the improvement of the lives of local residents and the welfare of animals.

## Japanese Summary

エチオピアではガリと呼ばれるカートを利用した、人の移動・物の運搬がおこなわれている。このガリを牽引するのが使役動物、とりわけ、今回の調査で取り扱う動物としては、世界第3位の個体数をもつウマ科のウマ、ロバ、ラバである。ガリの調査をおこなうにあたって、現地の人びとの薦めるアラバを調査地とした。この研究の目的は、アラバ・タウンの概要を把握するとともに、ガリの特徴、ウマ科の動物と地域住民の関係性、動物の福祉を訴えるNGOの活動内容などを把握するための予備調査を実施することである。

アラバ・タウンにおいて、家畜管理局、交通管理局、NGOなどへのインタビューをおこない、アラバの基本的情報を収集した。ガリの製造にも携わる修理店を訪問し、ガリの基本的構造を記録するとともに、ガリの種類や台数を把握するため、定点観測による交通調査をおこなった。NGOの活動内容については、インタビューや、会合への参加を通じて調査した。使用言語は、英語およびアムハラ語である。

ガリの種類や構造に注目すると、アラバには大きく分類して3種類のガリが見出された。ファラス・ガリ（人を乗せることを目的とし、ウマが牽引するガリ）の担う役割として、マーケットで大きな袋で食料品を購入した女性と、アラバでは合法のチャットを販売する男性にとって重要な移動手段となっていることが明らかになった。マーケットでにぎわう木曜日に実施した交通量調査では、225分のあいだに、255台のガリが通過し、その88%がアヒヤ・ガリ（物を運ぶことを目的とし、ロバが牽引するガリ）であり、ファラス・ガリは12%であった。マーケットへの運搬手段としてアヒヤ・ガリが重要な役割を担っていることが明らかになった。

アヒヤ・ガリは最大3頭の牽引動物で構成されるが、ガリを牽引する動物の頭数と牽引力の関係を考慮することは、動物への負荷を軽減する際に、重要な点であると考えられる。交通量調査で、アヒヤ・ガリが多かった理由として、マーケットに多くの荷物・人々を運搬するには、荷台の大きなアヒヤ・ガリが便利であることに加え、ロバはウマよりも安価で、入手・飼育が比較的容易であることが考えられる。

アラバでは、マーケットへの荷物の運搬・人々の移動にアヒヤ・ガリが重要な役割を担っていること、NGOの活動により、牽引動物の休息の場が提供され、報酬が支払われる代表者を通じて、地元住民への動物の福祉を守るための指導・訓練がおこなわれていることが明らかとなった。このような研究を通して、アラバでガリを利用する人々の自主的な動物への思いやりを反映したガリ運営システムを提案し、地域住民の生活向上や動物の福祉に寄与する可能性を模索する。

## **II . Research Activity**

### **1. Introduction**

Ethiopia is said to be the country with the largest number of livestock in the world, such as bovines, horses and donkeys that are raised for the purpose of towing (FAO 1986). There are some reports which point out that the number of equine is the third largest in the world (BROOKE 2016). In Ethiopia, there are many people making a living using these equines. Many people use equines for transporting crops, agricultural machinery and equipment (Betker & Kutzbach 1989).

There are two ways to carry things in use of equines: One is to carry things directly on an animal's back; another is to use a cart called *Gari*. *Gari* refers to a cart with wheels with the purpose of carrying baggage and people. *Gari* is roughly divided into three categories: pushes things by human, carries goods by donkey, and transports people by horses (see Photo). Although the origin of *Gari* is unknown, it is said that it was popular mainly in the urban area and the area where cultivation of coffee was prosperous particularly during the period of Italian occupation from 1936 to 1941 (Michael & Abiya 1989).

In recent years, along with changes in road conditions and transportation means, automobiles and small three-wheeled vehicles called *Bajaj* are popular in urban areas, and *Gari* pulled by animals tends to be decreasing. However, in the rural areas where roads as well as public transportation facilities, including minibuses and *Bajaj*, have not been developed yet, a number of *Gari* have been used with high frequency when carrying loads of up to 100 kg (Betker & Kutzbach 1989).

The advantages for users of *Gari* are as follows; it is relatively inexpensive as facilities; it does not use fossil fuels and is not polluted by exhaust gases; it can carry large amounts of luggage. Meanwhile, it has some disadvantages; the speed is slow; it is not suitable for long distance traveling; the risk of traffic accidents is high. Nevertheless, it is used frequently in rural areas.

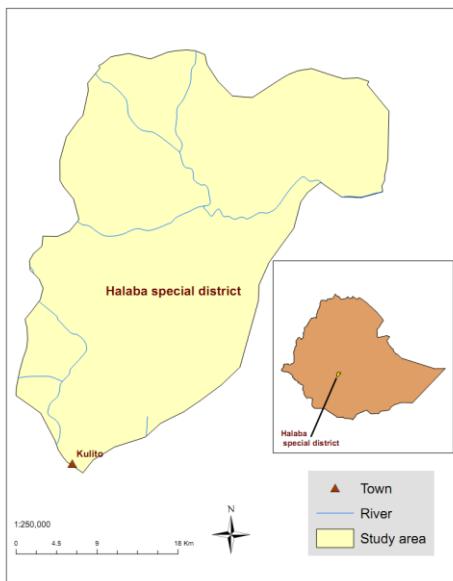
For animals used for transporting, they have some risks as follows; they are forced to work for a long time; they are not treated for injuries; they suffer a heavy burden on rough roads; insufficient feeding; they encounter traffic accidents. The above-mentioned problems have been pointed out by animal protection groups from the viewpoint of animal welfare. Nowadays, there are international NGOs locally involved in various activities.

The objective of my fieldwork was to explore the use of livestock fully embedded in actual conditions of the use of towing livestock, focusing on the mutual relationship between people and animals concerning the use of towing livestock in Ethiopia.

Through this survey, I attempted to grasp the outline of Alaba Town which is the center of the market in Southern Nations, Nationalities and Peoples' Region, the main point of transportation, the features of *Gari*, and the activities of NGO that perform activities from the viewpoint of animal welfare. I intend to seek the ways to overcome the problems of *Gari* and make use of its advantages to contribute to improving the lives of local residents and the welfare of animals in the future.

## 2. Study Area

Halaba (Alaba) Special District is located in Southern Nations, Nationalities and Peoples' Region (SNNPR), which is 315 km away from Addis Ababa and 90 km from the regional capital, Awassa, on the main road to Arbaminch. The district has 79 rural *Kebele* Administrative (KA) and 5 urban KA, and Kulito is the capital. The district is called "special" because it has a special status where the administration directly reports to the regional state. The District is located east of Kembata Tembaro zone, west of Oromia region, North, and Southeast of Hadiya zone and South East of Silte zone (IPMS, 2005). The altitude ranges from 1,554 to 2,149 Meters Above Sea Level (M.A.S.L), but most of it is about 1,800 M.A.S.L (IPMS, 2005). The annual rainfall ranges from 857 to 1,085 millimeters. The annual mean temperature varies from 17°C to 20°C. (A. Jerena, 2014). Alaba Town is located at 7° 18'N 38° 05'E, an altitude 1,726 M.A.S.L.



The map of Alaba special district.

**Source:** An Analysis of Factores Influencing Participation of Smallholder Farmers in Red Bean Marketing in Halaba Special District, Ethiopia, 2014

### **3. Methodology**

#### **3-1. Collecting basic information about Alaba Town**

I visited the offices of SNNPR's livestock office, transport office, NGO in Alaba Town, and interviewed their representatives. I gathered basic information of Alaba Town, including the number of livestock, and vehicles (e.g. cars, *Bajaj* and motorbike).

#### **3-2. Participation in a local repair shop involved in manufacturing *Gari***

I visited a repair shop called *Garage* involved in manufacturing *Gari* as well as repairing motorbikes, *Bajaj*, and bicycles. I participated in manufacturing work of *Gari*, recorded the scale of *Gari* and names of each part in Amharic, and observed the manufacturing process.

#### **3-3. *Gari* traffic survey**

On the main asphalt road leading to Waraita/ Sodo in the West, Shashamane and Awassa in the East, I counted the number of *Gari* on a market day, Thursday. On other week days, and attempted to explore the difference in traffic between market and non-market days. As the same time, I recorded characteristics of *Gari*, features of towed animals, number of passengers, types of baggage, and so on. To grasp a period of time when people go to the market and back to their homes by using *Gari*, I set time zones from 11 am to 6 pm, because the market started around 10:30 am. The survey was conducted for 3 hours in each time, on Thursday (3 times), and other week days (3 times). This road I observed is National Route No. 7, connected with Addis Ababa, on which many trucks and tourist vehicles frequently pass.

#### **3-4. Survey on activities of NGOs**

BROOKE Ethiopia (NGO) is engaged in activities to protect the welfare of equines such as horses, donkeys and mules through instructing local residents. In 2011, it launched some projects in Alaba. I attended Urban Change Agents (UCA) meeting sponsored by BROOKE Ethiopia and received training with its members.

## 4. Research Findings

### 4-1. Overview of Alaba Town

The number of people living in Alaba Town is 26,867 in 2015, which is equivalent to about 30% of the population of Alaba district, 117,291. Many people visit the town from its adjacent areas on Thursday, when a large market is open. The number of equines raised in Alaba Town was 238 for donkeys, 99 for horses, and there were no mules. These figures were less than 1% of the equines raised across Alaba district. In addition, registered vehicles in Alaba Town included cars, Bajaj and motorcycles, which were 120, 210 and 1,125 in number.

### 4-2-1. Alaba *Gari*

#### 1) *Gari* (for transporting by human)

This is moved and handled by human to carry luggages. It has one iron wheel, two handles, and wooden platform.

#### 2) *Ahiya-Gari* (for carrying luggage)

This type of *Gari* is primarily designed to carry luggages, but sometimes used for people to ride on. It basically includes a wooden platform with two wheels. Sometimes I observed another type of *Ahiya-Gari* which has a pallet with frames rather than platform. Wooden frames were placed on the edge of the flat carriage platform. During the survey period, there were up to 16 people on board. This *Gari* is drawn by 1 to 3 equines, including donkeys, horses and mules. They were usually paired with the same kind of animal, but there were some cases pulled by pairs of different types of animals.



*Ahiya-Gari* drawn by one donkey



*Ahiya-Gari* drawn by two horses

#### 3) *Faras-Gari* (for transporting people)

This is a carriage for people to take a ride. It includes two wheels, and seats are installed. Three or four passengers including driver can be accommodated. As far as I observed, this type of *Gari* is drawn by one horse in Alaba. Some of them had vinyl roofs, whose frames were iron (see the picture below).



*Faras-Gari* without roof



*Faras-Gari* with roof

#### 4-2-2. Roles of *Gari*

The use of Ahiya-Gari was fully embedded in commercial activities to carry not only agricultural products, but also woods and furniture.

In terms of roles played by *Faras-Gari* in Alaba, two characteristics were observed. First, women widely used this type of Gari as a means of transportation of big bags, which included vegetables and other food items from weekly market. The second characteristic is that it contributes largely to the transport of *chats*, a narotic leaf traded mostly by men. Male sellers carried *chats* by minibuses from Hosaina, and *Faras-Gari* served to provide the market with them.

#### 4-3. Fixed-point observation on main road

On September 15, I was involved in a fixed-point observation to count the number of *Gari* passing through the main road. It was held between 12:45 and 16:30, and I recorded 255 *Gari* during 225 minutes (see Table). This stationary measurement allowed me to realize that *Gari* was always handled by men; and women never reined. All *Gari* were equipped with rubber tires.

31 out of 255 were *Faras-Gari* (12.2%), and 224 were *Ahiya-Gari* (87.8%). 66.3% of the observed *Gari* were going into the direction of the market, and the others travelling to Shashamane and Awassa.

Table. Types and traveling direction of *Gari*

Type of <i>Gari</i>	Component			Direction		No.of <i>Gari</i> total
	Donkey	Horse	Mule	Market	Shashamane	
<i>Ahiya</i>	1	0	0	30	27	57
	2	0	0	75	27	102
	3	0	0	37	13	50
	1	1	0	3	1	4
	2	0	0	1	0	1
	1	2	0	1	0	1
	0	1	0	1	0	1
	0	1	0	0	1	1
	0	2	0	6	1	7
			total	154	70	224
<i>Faras</i>	0	1	0	15	16	31

September 15 (Thu), 2016

#### 4-4. About activities of NGO; BROOKE Ethiopia

30 equine owners selected as leaders from 5 *Kebele* participated in UCA. They cleared 4 conditions; 1) an equine owner, 2) able to teach other people, 3) a good equine owner, 4) have the ability to do a good management for equine, and received instructions on how to take care of equine animals in line with the concept of animal welfare. After the meeting, members received money from the NGO staff as reward.

### 5. Discussion

#### 5-1. *Gari*

This fieldwork revealed that *Gari* in Alaba Town are roughly divided into three types. I also observed a few cases of *Ahiya-Gari* which has wooden frame with the purpose of preventing stuffs from falling down. It is a good example of devising the convenience for *Gari* users.

*Gari* has a structure that can connect with only one animal. When *Gari* owners connecting with three animals (maximum number for *Gari*), two animals are connected to both sides. However, in the case of connecting with two animals, traction force can be biased because it connects only to either the left or the right. When examining reduction of load for animals, ways of connecting and number of animals are important points for consideration.

#### 5-2. Traffic survey

The high proportion of *Ahiya-Gari* observed on the main road of Alaba can be attributed to pivotal roles played by *Ahiya-Gari* in various commercial activities, including the distribution of agricultural products on a weekly market day. In addition, this seems to be related to the fact that donkeys are cheaper than horses and relatively easier to get and take care.

I noticed some fragments of the risk of traffic accidents. The estimated running speed of *Gari* is approximately 10 km/h on average. This indicates that the use of it entails the danger of collision with vehicle. In fact, some news was informed thorough the period of fieldwork, reporting crashes particularly on roads without light in the night. I realized that some platforms and pallets of *Gari*'s back side and forehead of animals have something like reflector with same color and shape. These represent equine owners' awareness of prevention of traffic accidents.

#### 5-3. Activities of BROOK Ethiopia

In order to protect the welfare of animals, this NGO has organized UCA meeting where its members give guidance and training to local residents. This field survey revealed that participants of the meeting received reward. One of the staff says that this reward is given in order to increase the motivation among them. The survey raised a further question of whether the NGO's mission could be achieved without such an economic incentive.

## **6. Conclusion**

In short, this field research in Alaba, Ethiopia enabled me to illustrate some elements of the indigenous system of *Gari*, which seems to echo local people's unique conception of care in the use of domestic animals. In the future, I want to develop this research further and contribute to the improvement of the lives of local residents as well as animal welfare.

## **Acknowledgement**

I would like to appreciate the Global Leadership Training Program in Africa (GLTP), Institute for the Advanced Study of Sustainability in the United Nations University (UNU-IAS) for giving the opportunity to participate. I would also like to be grateful to Dr. Mamo, an on-site supervisor at Addis Ababa University (AAU), who prepared for me to enter the research site, and Dr. Ahumed, director of the Ethiopian Studies (IES) gave me the research permit and made a letter to get the residence permit. Lastly, I would like to extend our sincerely appreciation to all the people involved in the field.

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### **III. Reflection on the GLTP in Africa**

#### Your motivation to participate in the GLTP

It was a good opportunity for improving my English language skills, including reports which I delivered every second week and planning documents. It was also good for me to have the opportunity to acquire and train what the ability not enough, such as to express and to share some situations to those who do not have experience.

#### Field experiences

Every day was full of new discoveries, as there was no background knowledge and it was in a complete digging situation. Investigation with Amharic language did not proceed as easily as I expected, and I was sometimes frustrated. However, thanks to the warm support of the local people, it was possible to finish this preliminary research without major incidents.

#### Challenges

There are two challenges as follows,

- 1) In just one week after entering the country, the demonstrations in Amhara State and Oromia State necessarily had to change the survey area and content. and also, one month later demonstrating casualties in Oromia State.
- 2) After entering the field I found several Wi-Fi spots but its communication was frequently disconnected, and I had difficulty getting in touch with the outside, including the GLTP secretariat.

#### How to make use of this experience to your future career development

I felt it is very important to communicate with local people weather I can speak local language or not. They shared their mind and helped me in any time as a family. I understood what they need in everyday life. I would like to learn their culture more, and contribute to their lives while cooperate with them in the future.

#### Encouragement to other students

I would like to appreciate for GLTP who gave me a cordial support, and who forgave me to change my research plan and to be late for submission of biweekly reports. I think that it is necessary to make use of what I learned in the field in next survey while to think together what is the best choice with the local people.