

The role of donkey pack-transport in the major grain market (Yehil Berenda) of Addis Ababa

by

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Abstract

A large part of the people and of the economy of Addis Ababa depends on donkey transport for the movement of grain from wholesale centres to retail outlets and households. The service is cheap, flexible and readily accessible in most parts of the city. It is also an essential source of livelihood and income to many households.

Although the donkey pack-transport service has enormous opportunities, the enterprises and the donkeys face various constraints. The main problems are related to shortage of food, municipal regulations, and harassment. The donkeys are usually overloaded and suffer from wounds related to overwork.

An increase in the productivity of the enterprises must be sought by improving their access to good food and health care. Technological solutions to improve the productivity of donkeys using carts might be difficult in the case of Addis Ababa, particularly in view of the settlement pattern in the old settlement parts and the city's general terrain characteristics.

The importance of the donkey transport service is recognised by the public who are the direct beneficiaries of the service, but government officials, and planners in general, tend to see it as an inferior occupation, and they will not support donkey pack-transport activity unless they are convinced of its economic importance, particularly in catering for the demand for transport services in less accessible parts of the city which cannot be served by modern modes of transport.

Introduction

Tesfahunegne (1989) maintains that in Ethiopia the contribution of traditional equine transport to the Gross Domestic Product (GDP) is underestimated. This author argues that the traditional system of transport could be appropriate for Ethiopia in the short to medium term because:

- the sector's resource base (the equine population) reproduces itself and is not subject to depreciation
- the sector is wholly dependent on locally available resources and not on imported technology and foreign exchange
- its operation is not dependent on the provision of transport infrastructure
- it has great flexibility and hence high penetration capacity in areas where infrastructure is lacking.

Donkeys are widely used in both rural and urban areas of Ethiopia for transporting a wide variety of items, eg, grain, flour, sugar, construction materials, sawdust, animal foods, etc. Such transport is an important stimulus to trading and also represents a source of income for the donkey owners. However, there are certain problems faced by the donkey pack-transport operators (DTPO's) which are as follows:

- the shortage of food
- municipal regulations relating to the movement and housing of animals.

The objective of the study reported below was to obtain a fuller understanding of the importance of donkey pack-transport services in urban areas of Ethiopia by taking as an example the major grain market in Addis Ababa. The use of a structured questionnaire, while desirable, was not possible due to limitation of funds. Thus, the information reported in this study was gathered from the following major sources using unstructured questionnaires: DTPO's, grain traders, consumers, veterinarians, local 'Kebele' offices, local development committees, traffic police, etc. The authors' observations of the grain market, the donkey market and mini-markets in the city, and in general how the donkey pack-transport business is operated, and the movement of donkeys on streets and within residential neighbourhoods were also important inputs to the study. The scope of the study is limited to the donkey pack-transport of grain within the city boundary and is based on Yehil Berenda which is the largest wholesale grain market in Addis Ababa.

Yehil Berenda of Addis Ababa

The Yehil Berenda of Addis Ababa, which is located near Mercato in 'Wereda' 06, 'Kebele' 01, represents the largest concentration of grain stores, grain mills, donkey pack-transport operators and donkeys in Ethiopia. The volume of grain trade activity in Yehil Berenda has significantly increased over the last few years as a result of the liberalisation of the grain trade. The number of DTPO's and donkeys employed in transporting grain are thus reckoned to have increased during the same period as have the number of trucks.

A significant proportion of households in the city buy grain every month in the days that immediately follow their pay day. Thus, the first and last weeks of each Ethiopian month are the busiest in terms of the volume of transactions in Yehil Berenda and hence in the amount of service provided by the DTPO's. The grain market is normally overcrowded, but traffic congestion is the highest during Mondays, Wednesdays and Fridays due to a very large concentration of freight trucks, cars, people and donkeys. There is no separate parking space for freight trucks and donkeys, and the movement of traffic within the marketplace is highly disorganised.

There are four 'terras' in the market, namely Gesho, Becho, Bono and Shell (in order of their importance taking into account the number of donkeys), which represent the major gates (departure points) along the four major routes which lead to the various parts of the city. The DTPO's identify themselves with one of these 'terras', and in general serve specific sections of the city.

The number of DTPO's working in and around Yehil Berenda is estimated to be between 800 and 1,200, while those of donkeys is estimated to be between 2,500 and 3,500. The total amount of grain transported by donkeys from Yehil Berenda during the major market days is between 5,000 and 7,000 quintals per day (estimate for April, 1997).

The donkey pack-transport operators

Although the market is the main centre for the donkey pack-transport service most DTPO's reside in the peripheral parts of the city. The majority of the DTPO's are able-bodied males who perform the loading and unloading tasks by themselves. Most are illiterate, although the educational background of those who recently joined the business is thought to be relatively better.

The donkey pack-transport business, like many other informal activities, has little restriction to entry. Many of the new entrants into the business are ex-soldiers who have lost their jobs as a result of military demobilisation. In comparison to other alternative sources of employment eg, working as daily labourers at construction sites, most DTPO's see the business as a more reliable source of income.

The donkey pack transport of grain from Yehil Berenda is believed to be expanding. It can even be considered as a lucrative business, particularly for those who have large number of donkeys and regular customers. The activity also provides, for the lucky ones, the opportunity to switch into other preferred activities. There are, for example, some ex-DTPO's who have now established themselves as grain traders, mini-bus taxi or mini-truck operators, etc.

The donkey pack-transport business

The DTPO's keep, on average, between two and five donkeys. There are obvious management problems in keeping a larger number of donkeys: feeding, in particular, is very expensive. Virtually all the pack donkeys are males. Female donkeys cannot be worked when pregnant and keeping them in the city is not profitable. The average carrying capacity of the donkeys employed in transporting grain is one quintal (100 kg), and the maximum working life of a donkey is estimated to be five years.

The major cost of starting a donkey pack-transport business is investment in donkeys (the average price of donkeys is between Birr 350 and 450), as compared to other start-up costs which include straps (Birr 18), pack-saddle (Birr 15) and whip (Birr 3). Housing for donkeys is rarely constructed as, in most cases, they are simply tied to a pole inside the owner's compound.

Most of the donkeys used in the city are imported from other places within Shoa Region. There is a specialised donkey market in 'Shola Gebeya', while other nearby markets where donkeys are available for sale are Sebeta and Akaki. During purchase the age of donkeys is determined by evaluating their general body condition, and the state of their teeth and hooves.

Expenditure on foods (ie, wheat bran, 'Atela' and low grade cereals) is the major running cost (an average of Birr 30 per week for a person who has five donkeys) as there is little available grazing space within the city boundary. Donkeys are usually fed at home during the night, and only rarely during working hours. Thus, there are no feeding and watering troughs in and around the market place.

The donkey pack-transport business is run by owner-operators, although the help of assistant donkey drovers is sought when the address of the consignees is unknown or when owner-operators cannot transport the grain on the same day. In this case an amount which is between one-third and a half of the total price is paid to the assistant drover. The DPTO's did not mention salary as an important running cost as the donkey owners do not hire assistant drovers on a regular basis.

Donkeys are said to be more resistant to diseases than other domestic animals (eg, cross-breed cattle). DPTO's, who also employ traditional treatments, did not mention veterinary costs as an important expenditure item in their operation.

DPTO's normally start to arrive at Yehil Berenda with their donkeys at 5.30 am. The donkeys have to be returned before it gets dark as their sight is impaired during the night. Donkeys cannot be worked during the night as the headlights of automobiles (and municipal road lighting) confuse them, and their effective time of operation is a 12 hour period between 6.00 am and 6.00 p.m.

Most of the grain transactions take place early in the morning, and the DPTO's first assemble the sacks of grain which they have agreed to transport. They pile them in a certain corner and start the dispatching work after 9 am when the market is quietening down. This makes it easy to decide if they have to hire donkeys from other transport operators or if they can rent some of their donkeys to others. It also helps them in selecting the routes they should follow while dispatching the grain and in deciding about the use of assistance drovers, depending upon the addresses of the consignees.

The DPTO's might complete two to three round trips in a working day, depending upon the number of donkeys at their disposal, the number of quintals for transport, and the distance of the destination point(s). It is worth noting, that the DPTO's bring all of their donkeys to the market place as it is difficult to arrange for herding around their residence. Moreover, they do not want to forego business if they happen to get a lot of grain to transport. They can also rent their donkeys to other DPTO's.

Donkeys are worked without rest if there is grain to be transported. The rate of utilisation of the donkeys, apart from the demand for the service, is determined by their physical condition, particularly that of their backs (which are often sore due to the rubbing of the straps which are used as tying ropes), and their hooves (as they travel long distances). There are no pack-saddles used, but empty sacks are simply put underneath the loads to cover the shoulders. But DPTO's load donkeys with sore backs as they cannot afford to wait until they are completely healed.

Beneficiaries of the service provided by the business

The DPTO's provide a service to grain shops and/or grain mill owners, hotels and private households. The major beneficiaries of the cheap transport service provided by DPTO's, however, are grain shops and/or grain mills which retail grain and flour around the mini-markets and the hotels in the city.

The average monthly consumption of grain by a family of six members is about 50 kg, while the livelihood of a large proportion of households in the city is based on income to be obtained by working in the informal sector which is characterized by intermittent flows of income. Thus, most households purchase grain in small amounts from grain retail shops which are located in and around the small markets and around neighbourhoods. Only a small proportion of households purchase grain directly from Yehil Berenda where grain is mostly sold in quintal units.

Advantages of the donkey pack-transport service

The donkey pack-transport service offers a number of advantages, of which its convenience is the major one. The DPTO's can take orders to give a door-to-door service all over the city. What they ask is the exact address of the customer and a reference point. From experience, they know almost every locality in the city. This is important in view of the road conditions which do not allow the use of motorised transport (as the sack will not walk up to the next bus station!), particularly in the old settlement areas which are not provided with access roads.

Taxis may be used but their major disadvantage (apart from the cost) is that one has to transport the grain up to the point where the taxi is parked. Moreover, one has to unload and again carry the grain into the kitchen (as taxis will only operate along the major asphalt roads) which might involve additional cost (which would be roughly equal to the whole price to be charged by DPTO's to transport the grain from the Yehil Berenda). The total transport cost with a taxi can

therefore be very high, particularly if the housing unit is located in a less accessible area.

The prices charged by DPTO's (Birr 2-5 per quintal in case of grain traders and Birr 3-8 per quintal for individual families and hotels) include loading and unloading services (DTPO's help each other in loading their donkeys). These prices are, in general, lower than those charged by taxi operators, Birr 10-15 per quintal, which does not include charges for loading and unloading the grain.

Prices charged by DPTO's are generally fixed and locality-specific. But, they are still negotiable, particularly when dealing with individual customers. The prices generally increase with distance, but shorter distances are relatively expensive, as all trips, whether short or long, will involve almost the same effort for loading and unloading the grain.

The minimum price is Birr 2-3 per quintal which refers to the amount paid to get a quintal of grain transported from Yehil Berenda up to Messalemia which is the nearest taxi station. The maximum, on the other hand is for transport to Kotebe which is Birr 12 per quintal. (US\$ 1 = Birr 6.6).

Income earned by donkey pack-transport operators

It is difficult to give an accurate estimate of the income earned by DPTO's. This is mainly due to the informal nature of the undertaking which is characterised by erratic flows of income. Yet, the activity is considered as profitable, particularly for those who have large numbers of donkeys and clients. Many DPTO's equate the income of a DPTO with five donkeys with that of a four-seater taxi operating in the city.

The income earned by DTPO's is directly related to the number of donkeys at their disposal. With an average estimated daily income of Birr 10 per donkey during the major market days, the activity is reckoned to be lucrative compared to other forms of informal activities. The minimum monthly net income of a DPTO with a single donkey (most DPTO's own 2-5 donkeys) is estimated to be Birr 125 which is considerably higher than the minimum legally fixed monthly salary of civil servants (which is only Birr 105). This is calculated assuming that the gross income they earn during the major market days (three days in a week) account for three-fourths of their total monthly income, and correcting it for a monthly food cost of about Birr 25 per donkey.

The DPTO's are notoriously bad savers. But most of them are members of 'Ekubs'. It is funds raised through Ekubs which are often used to finance their requirements for relatively big expenditures such as buying a replacement donkey. (An Ekub is a traditional voluntary fund mobilising institution established by a group of interested individuals. Members of the Ekub contribute a fixed amount of money at regular intervals eg, weekly. The money is given to the person in the group whose turn it is to receive the total distributed. The order of the turns is decided by lottery.)

Table 2: Summary of the economic significance of the donkey pack-transport service provided from 'Yehil Berenda' of Addis Ababa: minimum, maximum and average estimates of (1) DTPO's (2) donkeys employed (3) grain transported (4) daily transaction and (5) daily income of DTPO's during the major market days.

<i>Estimate</i>	<i>Transport operators (heads)</i>	<i>Donkeys employed (heads)</i>	<i>Amount of grain transported (quintals)</i>	<i>Daily transactions (Birr)</i>	<i>Income of transport operators Birr/day</i>
<i>Minimum</i>	800	2,500	5,000	25,000	20
<i>Maximum</i>	1,200	3,500	7,000	35,000	50
<i>Average</i>	1,000	3,000	6,000	30,000	35

Source: Field observation, interviews with donkey pack-transport operators and leaders of the Donkey Owners Association.

Externalities associated with the business

There are both positive and negative externalities associated with the operation of the donkey pack-transport service. Among the positive externalities is the manure of donkeys, which is an important source of household energy used for cooking by low income families. It is collected by women and children (who also collect spilled grain inside the market). The local Road Development Committee (RDC) has hired 10 women (with a monthly salary of Birr 100-120) for the road cleaning. A sack-full of dried dung, which is mainly used in cooking 'injera' (this is a traditional pancake), is sold for of six birr.

There are also many people who work in and around the market place as daily labourers (eg, as porters), and this employment can be taken as another positive externality of the donkey pack-transport activity.

Not all the manure can be recovered and this creates a bad smell in and around Yehil Berenda. Even when dry and crushed by the hooves of donkeys it creates dust pollution. During the rainy season, in particular, its collection becomes difficult, and the sanitary condition of the grain market deteriorates. Thus, one of the negative externalities is the polluting effect of the excreta and urine of the donkeys.

The 3,000 donkeys which operate around Yehil Berenda require considerable parking space, and this causes severe congestion in the surrounding area. The movement of donkeys within the city also contributes to traffic problems, particularly around the grain market and major traffic crossings.

There are also certain zoonotic diseases, such as rabies, that affect donkeys and which are of a wider public health concern.

Availability of veterinary services

The major diseases faced by donkeys are related to malnutrition, food poisoning and internal parasites. In addition there are diseases of the respiratory organs, tetanus (locally known as 'Mengaga Kolf' or 'Magirat Getir'), and other health problems associated with them being overloaded.

The government administers some veterinary laboratories and clinics in Addis Ababa like the Shola Veterinary Laboratory. Until the recent liberalisation of veterinary service provision, however, the only non-government organisation that was active in providing veterinary services to donkeys in Addis Ababa was the Baptist Mission. Numerous veterinarians in the city have obtained licenses from the Ministry of Agriculture, and provide ambulatory (mobile) veterinary services to all kinds of domestic animals, including donkeys. The major reason for the ambulatory nature of the service is that it is easier for the veterinarian to go to the donkey than vice versa.

The most common type of modern medical treatment given to donkeys is deworming which is provided at a rate of Birr 4-6 per head (veterinarians recommend that this should be repeated every three months). It is interesting to note that DPTO's consider such medicines as fertilisers, as the body condition of their donkeys improves considerably after treatment. The donkeys are also treated for sores, in which case disinfectants and antibiotics are used. A hoof trimming service is also provided by some veterinarians.

Institutional support provided to the business

According to Legal Notice No. 192 of 1954 issued by the Municipality of Addis Ababa, a permit is required from the Director of Public Health to keep animals (except dogs and cats) within the municipal boundary (a permit is also required for animals that enter the city from other areas). The regulation stipulates that no permit shall be given to keep animals within a 100 m buffer on both sides of the eight main roads that radiate from the five major squares in the city.

However, the Municipality does not have the necessary institutional capacity to effectively enforce the regulation. This is one of the major reasons for the presence of considerable donkey-pack-transport activity within the city which is done unofficially. It is interesting to note that the high urban land values make it impossible to keep donkeys in the core parts of the city.

The donkey transport business, like most other informal-sector activities, is undertaken without any support from the government. The donkey pack-transport businesses are not licensed, and taxes are not collected. Thus no services are provided to the DPTO's. According to the DPTO's, there is widespread donkey theft. The police, however, do not readily cooperate unless the robbers are caught red-handed.

Donkey drovers do not have legally protected rights. Concerning the use of roads by animals, Legal Notice No. 261 of 1962 (which is issued pursuant to the transport proclamation of 1943) stipulates that:

- 1. No person shall drive, herd or lead animals on a road if it is possible to do so at another place. If no such other place exists, the herder shall take every precaution to avoid obstruction of traffic and hindrance to other road users.*
- 2. A herder shall keep his animals to the extreme right edge of the road.*
- 3. When a motor vehicle approaches animals on a road, the herder shall do everything in his power to clear the road for the motor vehicle.*

Thus, in the case of a traffic accident in which a donkey and a car are involved, it is the donkey drover who will invariably be obliged to compensate for the damage sustained by the car, while he cannot claim for his damage. To this effect, the police might detain the donkeys, and DPTO's have to negotiate with the car drivers on how to compensate them, unless the drivers exempt them on moral grounds.

The DPTO's and the local Road Development Committee (RDC)

There is a local RDC established to improve the coverage and quality of roads in and around Yehil Berenda. The RDC rarely consults with the DTPO's and considers the donkeys as constraints to its aims. It is believed that donkeys will be an eyesore when the construction work is finished. According to the DTPO's, the RDC once attempted to totally restrict their entry into the grain market, which led to severe resistance. It could not be sustained longer than a few hours. This shows how DPTO's are harassed and marginalised in local development initiatives.

A recent development which has affected the operation of DTPO's is a restriction imposed by the RDC which stipulates that donkeys should not enter the market place before 10 am in the morning (ie, they are allowed to enter into Yehil Berenda only after all the trucks which stay overnight in the market have left), which is meant to reduce the congestion of the market place by donkeys and DPTO's.

The DTPO's complain that the restriction has negatively affected their business, as most of the grain transactions take place early in the morning. (Those coming to buy grain want to leave the market as early as possible to go to their work). Moreover, the donkeys congregate around the neighbourhood until 10 am and their manure and urine have become a public nuisance. The DPTO's have already entered into serious conflict with households and businessmen that live and work around Yehil Berenda.

The Donkey Owners' Association (DOA)

Some 300 DTPO's have formed a Donkeys Owners' Association (DOA). This association has an executive committee (which follows up its day to day activities) and a management committee (which oversees its activities). It has a draft by-law, an official stamp, a bank account, and collects a monthly contribution of five birr per member (which is meant as a saving). Currently, the DOA is striving to get a legal certificate from the Cooperative Promotion Section, Social Affairs Department of Region 14 Administration.

The major advantages which the members foresee from the Association are related to improved sanitation in and around Yehil Berenda, better security against theft and better prospects of getting alternative employment opportunities. They also see it as an important instrument to protect their rights, provide better social security for their members (eg, to provide assistance to a member who has lost his donkey in a traffic accident), and to better bargain with the local government and other organised groups that operate in and around the grain market.

The DOA has, for instance, started negotiating with the RDC on the possible relaxation of the restriction imposed by the RDC on their entry into Yehil Berenda before 10 am. The DOA and the RDC have also reached some understanding on the need to arrange for an adequate open space which can serve as a parking area for donkeys until 10 am.

New trends that have influenced the business

The magnitude of grain transported by donkeys within the city, and hence that of the service provided DTPO's is reckoned to have increased over the past few years associated with the recent liberalisation of the grain trade.

It is also worth noting the possible impact, on the donkey pack-transport business, of the integration of some functions which previously used to be undertaken as separate businesses. An increasing number of grain wholesalers in Yehil Berenda, for example, have started to purchase their own mini-trucks which they use to bring grain from the rural markets to their shops, and to transport grain to retail shops which are their major customers. Similarly, some grain mill operators which have their grain stores side by side with their grain milling business now sell the grain in the form of flour at a reasonable discount. Some consumers which used to regularly buy grain from Yehil Berenda (and who were getting their grain transported by donkeys) now directly buy the flour from the grain millers-cum-grain traders.

Concluding remarks

A large proportion of the people and of the economy of Addis Ababa depend on donkey pack-transport for the

movement of grain from Yehil Berenda to retail trade and individual households. It is also an essential source of livelihood and income to the many households with donkey enterprises. The activity also has a significant economic multiplier effect for those who collect the dung of donkeys and who work as daily labourers.

The amount of grain which is estimated to be transported during the major market days is equivalent to a one-time loading capacity of 100 mini-trucks (assuming the loading capacity of a single mini-truck is 60 quintals). This is important as the operation of the donkey pack-transport activity does not require foreign exchange to buy donkeys and food and to construct and maintain asphalt roads.

Although the donkey pack-transport service is cheap, flexible and readily accessible in most parts of the city, it is associated with certain negative externalities such as deterioration of the sanitary conditions and traffic congestion in and around the grain market.

Although the use of motorised transport is increasing it is likely that donkeys will continue as an important mode of urban freight transport in many parts of the city. The cheap price of using donkey pack-transport services will tend to encourage their use where there are many urban poor who cannot afford motorised transport.

Although the donkey pack-transport service has enormous opportunities, it faces various constraints. The main problems are related to shortage of food, municipal regulations, and harassment. As a result, DPTO's are in a precarious position to claim for damages they might sustain due to traffic accidents. In addition, no financial support and extension services (eg., on the importance of proper feeding, modern health care and technological innovations) are provided to DPTO's working in urban the areas.

DPTO's should be encouraged to form more associations which could serve as important institutional channels through which the government and non-government organisations (NGO's) could provide them with various types of assistance, and which will contribute to a better management of donkeys and hence improvements in the way in which the activity is undertaken.

The importance of the donkey pack-transport service is well-recognized by the general public and DPTO's who are the direct beneficiaries of such services. Government officials and planners, on the other hand, tend to see it as an inferior occupation and they do not readily support such activities.

Finally, it is worth pointing out the need to carry out further research in the following areas:

- identifying and assessing the type and volume of activities undertaken in urban areas with the help of donkeys (including taking censuses of donkeys that exist in urban areas)

- assessing the possibility to introduce technological innovations to improve the productivity of donkey pack-transport activities

- assessing the potential role of community-based organizations in improving the bargaining power of DPTO's

- identifying and assessing institutional constraints besetting the performance of donkey pack-transport activities

- assessing the attitude of the public, local governments and DPTO's themselves on the utilisation and management of donkeys

- assessing negative externalities associated with the donkey pack-transport activity and finding ways of regulating them, particularly in an urban context.

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