

WELFARE CHALLENGES IN THE USE OF THE DONKEY FOR ECONOMIC EMPOWERMENT IN THE GAMBIA

*Badmos, A.A.¹, Akewusola, G.O.¹, Bah, T.¹, Yusuff, A.T.², Okukpe, K. M.² and Lawal, A.O.³

¹School of Agriculture and Environmental Studies, University of the Gambia, Gambia.

²Department of Animal Production, University of Ilorin, Ilorin, Nigeria.

³ITAD Ltd, Hove, UK.

Corresponding author:- badmos111@yahoo.com

The donkey is an important animal used for transportation of humans, goods and farm produces especially in rural areas or places where there are road network challenges. This study examines the welfare challenges related to the use of donkeys in 3 districts of the Gambia. A sample of 200 donkey owners were interviewed to explore housing, feeding, watering and health issues. Results showed that most of the respondents (82%) preferred to use the Abyssinian donkey which is well suited as a draught animal, and which are used primarily for commercial, farming and domestic purposes. The most critical welfare challenge of the animals are physical wounds and abnormalities (as reported by 71% of the respondents), while access to veterinary services are fairly limited due to the cost of medicines and the distance to veterinary clinics. It is suggested that mobile veterinary services should be available to provide on the spot support, while a census of donkeys in the Gambia will facilitate a robust plan for targeted support for donkey welfare. The donkey is an important animal used for transportation of humans, goods and farm produces especially in rural areas or places where there are road network challenges. This study examines the welfare challenges related to the use of donkeys in 3 districts of the Gambia. A sample of 200 donkey owners were interviewed to explore housing, feeding, watering and health issues. Results showed that most of the respondents (82%) preferred to use the Abyssinian donkey which is well suited as a draught animal, and which are used primarily for commercial, farming and domestic purposes. The most critical welfare challenge of the animals are

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Key word: *Draught Animals, Challenge, Support*

The Donkey, a member of the family Equidae, has a population of 44 million worldwide and 65,650 in the Gambia (FAO, 2012). The animal is particularly important in rural agriculture as a power source, for transportation of humans, goods and farm produces in places where the road network is inadequate and motorized transport is not accessible or affordable. Smith and Pearson (2005) affirmed that the energy supply role of the Donkey under harsh condition is admirable as it is not only available for traction at low cost, it has natural ability to endure a considerable degree of dehydration of about 30% of their body weight, making it well adapted to dry arid environment. The donkey is important as a source of power for people with minimal resources (Fernando and Starkey, 2000) and half of the world population presently depends on draught animals as a source of energy (Wilson, 2003). Pearson *et al.* (1995) stated that the multiple roles of the donkey as draught animal, cart and pack transporters, financial assets or gender empowerment objects are the glue that hold peoples' livelihood together. The Donkey has since 1985, became the dominant draft animal in the Gambia (Starkey, 1986).

The productivity of the donkey, and its relevance to economic empowerment is related to its welfare and management practices including housing, feeding, water supply, medication and harness materials. This study considers the perception of the donkey keepers and draught operators to donkey welfare and management issues, as it relates to economic uses of the Donkey in Jalamba, Jambanjelly and Sanyang districts of the Gambia.

MATERIALS AND METHODS

Study Area and Time: The study was conducted in Jalamba, Jambanjelly and Sanyang in the West Coast of the Gambia between February and August 2019. The total donkey population in the area is 325.

Sampling Technique: Systemic stratified sampling technique was used to select study donkeys in order to make the sampling a good representative of the total donkey population. The sample size of 200 donkey farmers/owners (50 from Jalamba, 75 from

Jambanjelly and 75 from Sanyang) were interviewed in their farms/homes. Data was collected with the use of semi-structured questionnaire to interview donkey owners/users to satisfy the objective of the study.

The data to be collected were based on the demographic characteristics of the respondents, prospects on the use of donkey draught and the challenges associated with the use of donkey draught animals. It addresses the donkey management; veterinary service coverage, feed type, housing, watering and working management system. Consent of donkey owner/user was asked before administering questionnaire.

RESULTS AND DISCUSSION

The data collected from the respondents which included 200 donkeys owners/users in the study area of Jalamba, Jambanjelly and Sanyang in Kombo South District, West Coast Region of the Gambia includes:

Donkey breeds and origin: The study revealed that most of the respondents (82%) preferred to use the Abyssinian donkey, some (14.5%) use Parlag donkey, a native of Hungary, while a mere 3.5% use the American Mammoth donkey. Porter and Alderson (2016) reported that the Abyssinian donkey is a breed of donkey native to Ethiopia and It is traditionally used as a beast of burden by the indigenous people. This is in agreement with the findings of this study.

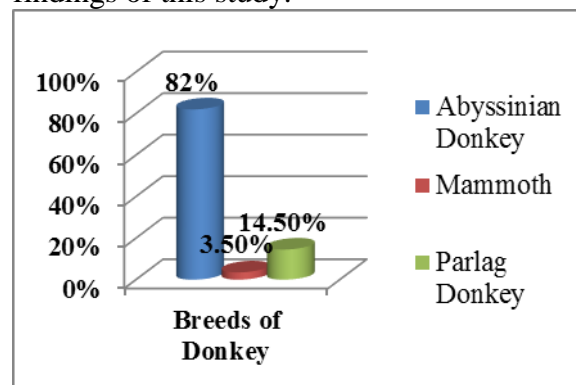


Figure1: The breeds of donkey used in the study area.

Donkey use: Over half of the respondents (59%) use donkey commercially (figure 2), carrying goods and building materials, while 34% of respondents use the animals for

fetching household water, and other domestic purpose. A few of the farmers (7%) used their donkeys for farming activities (7%), but none (0%) of the farmers were keeping their donkeys for manure collection and this was due to the decline in the availability of farm lands, as the study area is a peri-urban area. The use of donkeys for commercial purpose agrees with the study of Scantlebury (2017) who observed donkeys carts carrying people, ploughs and equipment back from the fields, and reported that horses and donkeys are still intrinsic to people's lives and greatly benefit families in the Gambia. Starkey (1994) earlier reported that donkeys are traditionally used for transport by pastoralists, traders and water vendors in sub Saharan Africa.

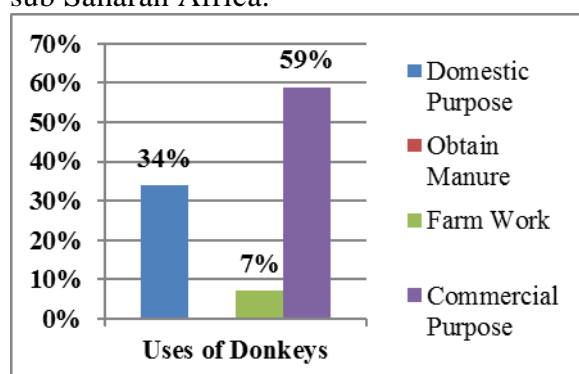


Figure 2: Purpose and use of donkey in the study area.

Welfare Issues:

Feeding Regime: The feed given to donkeys in the study areas, as shown in Table 1, mainly consists of agricultural by-products such as maize residue, chopped sugar canes, green grasses / dry grasses, groundnut hay, supplements and concentrates. Animals are not restricted to single feed type. Slightly over a third of the respondents (39%) feed donkeys solely on green grass or dry grasses, 27% feed their animals with groundnut hay, 15.50% of respondents feed mixtures of concentrates (wheat bran, millet brand and rice bran) and only 11% feed donkey solely on agricultural by-products. This feeding pattern is in line with Aganga and Tsopito (1998) who reported that donkeys are able to digest high fiber forage diets and utilize organic acids for energy. The study reported that virtually all donkeys in Botswana are grazed or fed on straw and hay. The authors

opined that donkeys require the fiber to keep their digestive systems fully functional and to ensure a steady rate of food passage through the gut and as free - ranging animals, they seldom need any additional feed, except when the animals are expected to produce extra work

Water supply: All respondents directly water their donkeys and water provision is varied according to work type, weather condition, distance traveled by animals and amount of load carried. For the 59 % of donkeys, water is provided thrice daily, while some respondents (23 %) provided water twice daily and some others (18%) provide water once a day. The water use is directly related to the intensity of donkey use.

Shelter: Slightly above half of the respondents (53.5%) have donkeys being housed in sheds, less than half (43%) house the animals in open fields, while 13% house them in enclosed barns. DHC (2015) claimed that donkey must have a clean, dry barn, or, at the very least, allowing an approximately 4.5 square meters of ventilated, well drained stable

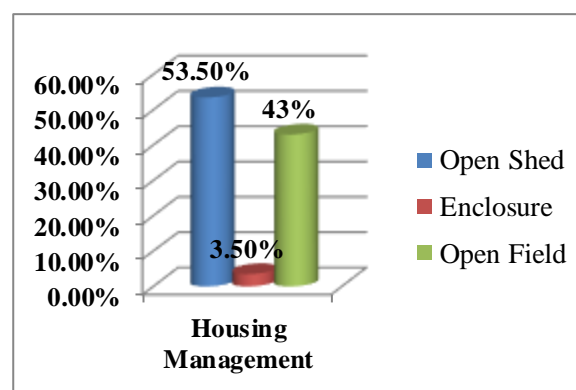


Figure 3: Type of Donkey housing in the study area.

Challenges: Result of study (Figure 4), from the interview with the respondents, showed that 71 % of the welfare challenges of the donkeys arise from wound and visible abnormalities, 10% of the challenges are due to theft, 8% are due to skin problems, 7% due to accident, while a mere 4% is due to diseases (including equine influenza, strangles, equine specific lungworm etc.)

Wounds and visible abnormalities: The occurrence of wound cases reported in the

Table 1: Type of Feed Supply

Areas	Agricultural by-products	Green grass / Dry grasses	Groundnut hay	Supplementary feed	Concentrates
Frequency	22	78	54	15	31
Percentage Respondent	11%	39%	27%	7.50%	15.50%

Table 2: Water Supply Frequency

Areas	Thrice daily	Twice daily	Once daily
Frequency	118	46	36
Percentage Respondent	59%	23%	18%

study areas was 71% while only 8% reported skin problems. The commonly observed wound on animals was, tail wound (37%), back sore (14%), and side wound (12%) and girth sore (8%) respectively. It is expected that these wounds will have negative impacts on the comfort and productivity of the donkey. Regan-nee-ashley (2015) reported that working donkeys have a high prevalence of clinical abnormalities and a number of behaviors are associated with these. Improved feeding and care of the donkeys is expected to largely reduce (effects of) these physical injuries and abnormalities, according to Scantlebury (2017) who reported that donkeys sustain multiple wound multiple injuries when they are attacked with machetes as a result of entering adjacent farms.

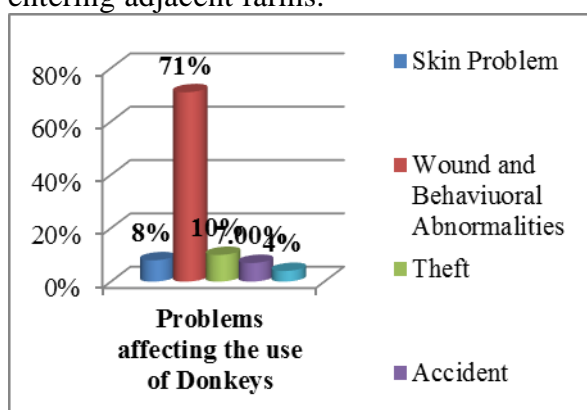


Figure 4: Challenges and Problems of Donkey use in the study area.

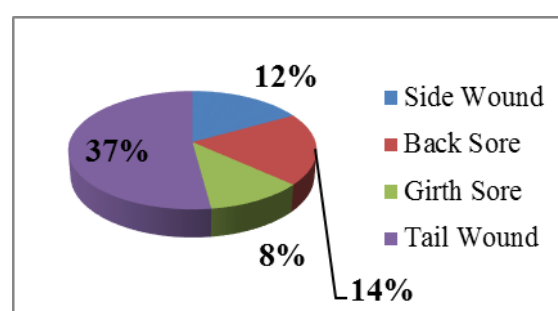


Figure 5: Wounds types and abnormalities of donkeys in the study area.

Suggestion for improvement and empowerment of donkey users: About three quarters (72%) of the respondents (Table 3) suggest that the welfare and use of the donkey in the Gambia will be greatly facilitated by the Government of the Gambia empowering the Gambian Horse and Donkey Trust, as it has rendered efficient supporting services and enlightenment to donkey owners. Some respondents (12%) suggest that the government subsidize donkey feed, others (11%) prefer that mobile donkey doctors should be available on the streets of Gambia, to provide on-the-spot support, while a small fraction (5%) advise that a census of donkeys in the Gambia will facilitate all other interventions. The Gambia Horse and Donkey Trust (GHDT) is a small charity, registered in both the UK and The Gambia. The Gambian Horse and Donkey Trust (founded 2002) is registered in the United Kingdom and the Gambia, and aimed at reducing rural poverty in The Gambia through improving the health, welfare and productivity of working

Table 3: Suggestions for Improvement of Donkey Use

Areas	GHDT Support	Feed Subsidy	Mobile Clinic	Registration
Frequency	144	24	22	10
Percentage Respondent	72%	12 %	11 %	5 %

animals (GHDT, 2019). The recommendation of empowerment for the GHDT by of a large percentage of donkey owners (72%) is a positive expression of the trust's contribution to donkey welfare in the Gambia. The demand for better welfare of donkey for use was affirmed by AWSA (2017), who reported an increasing recognition, particularly in subsistence and small-scale production systems typical of the developing world, of the link between animal welfare indicators and animal health and therefore productivity, incomes and livelihoods.

CONCLUSION AND RECOMMENDATION

Donkeys are used primarily for commercially transporting goods, building materials and collecting refuse or fetching water for household domestic use, while a few owners use their donkeys for farming activities. None of the owners keep their donkeys for the purpose of manure collection. The trend in donkey use is consistent with the predominant breeds in the study area, as the Abyssinian donkey is well suited as a draught animal. The owners maintain a simple welfare regime that is suited to the conditions of the animals. Shelters are simple, while watering is done entirely by the owners, to suit the use of the animal as well as the weather conditions. Wounds are the most critical welfare challenge of the animals as a result of abuse or poor welfare conditions, while access to veterinary services are fairly limited due to the cost of medicines and the distance to veterinary clinics.

It is suggested that mobile veterinary services should be available to provide on-the-spot support, while a census of donkeys in the Gambia will facilitate a robust plan for targeted support for donkey welfare.

REFERENCES

1. Aganga A A & Tsopito C M 1998 A note on the feeding behaviour of domestic donkeys: a Botswana case study. *Applied Animal Behaviour Science* 60: 235 – 239
2. AWSA (2017). *The Animal Welfare Strategy in Africa*. The African Union - Inter-African Bureau for Animal Resources (AU-IBAR). Nairobi, Kenya. July 2017
3. DCH (2015). *The Donkey Care Handbook*. The Donkey Sanctuary. www. The donkeysanctuary.org.uk. United Kingdom.
4. FAO (2012). *Report of the agricultural census of the Gambia: 2011/2012*. The Republic of the Gambia. Food and Agricultural Organisation, Rome.
5. GDHT (2019). *Gambian Horse and Donkey Trust Home Page*. <http://www.gambiahorseanddonkey.org.uk/>
6. Pearson, R.A., Nengomasha, E.M. & Kracek, R.C. (1995); *The challenges of using donkeys for work in Africa*, in *Proceedings of the ATNESA. workshop 'Meeting the challenges of animal traction'*, Kenya, 4th-8th December 1995.
7. Porter, V., & Alderson, L. (2016). *Mason's World Encyclopedia of Livestock Breeds and Breeding*, 2 Volume Pack, Stephen J.G. Hall, D. Phillip Sponenberg
8. Regan-Nee-Ashley, F. H., Hockenull, J., Pritchard, J. C., Waterman-Pearson, A. E., & Whay, H. R. (2015). *Clinical abnormalities in working donkeys and their associations with*

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- behaviour. *Veterinary record open*, 2(1), e000105.
doi:10.1136/vetreco-2014-000105
9. Scantlebury, C. (2017). Surveilling infection in Gambia's horses and donkeys. GHDT mobile veterinary team. Gambia Horse and Donkey Trust.
 10. Smith, D.G. & Pearson, R.A. (2005). A review of factors affecting the survival of donkeys in semi-arid regions of sub-Sahara Africa. *Animal Health Production*. Nov 2005. 37 suppl1: 1-19
 11. Starkey, P. (1994). Donkey utilization in Sub-Saharan Africa: recent changes and apparent needs, pp 289-302 in Bakoury, M. and Prentis, R.A. (eds) *Working equines. Proceedings of second international colloquim held 20-22, April 1994, Rabat, Morocco*. Actes Editions, Institut Agronomique veterinoire, Hassa II, Rabat, Morocco, 412p. ISBN9981-801-11-9.