

Possible use of wild animals in provision of draught power in the 21st Century

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Abstract

Most rural farmers need cheap labour for land tillage as well as, transport of water and other commodities, hence the need for cheaper and easily accessible sources of power. The needed power is reliably found in domesticated animals; cattle, donkeys, horses, camels and others. Despite this, the demand is still high for more animal power. This leads to the need to explore the possibility of using non-domesticated wild animals like the buffaloes, elands, zebras and many more which can possibly be tamed for domestic use. These wild animals in comparison with the domestic ones are more disease resistant, drought resistant and have more horse-power ready for exploitation. This paper looks into the possible application of wild animal power exploitation as boost to the available power.

Introduction

History and background information on general animal power exploitation in Kenya

In almost many households in Kenya, regardless of economic status, one can easily find at least one animal drawn implement; a cart, a plough or sledge. Many resource poor farmers depend on animal power for upto 70% of their power needs. Farmers in the Eastern Kenya region practice mixed farming whereby they keep livestock and grow crops. They therefore find it easier to use the animals for draught power than for farm implements whose prices are high and continue to rise.

Thus, to be effective in farming, land preparation, farm produce transportation and water drawing needs cheap available power, which is found in most domesticated animals.

The experience in the semi-arid areas of Eastern Kenya

Two communities in Kenya's semi-arid regions of Kajiado and Kitui provide living practical experience of the high demand for animal power.

In Kajiado

In Kajiado, the community is pastoralist-oriented where the women are responsible for transportation of the household goods and water fetching. The donkeys are very handy to the women. Loads of firewood, water cans and general goods transportation is effected by loading them on pack donkeys. Thus it is common to find each household having one or a herd of donkeys.

With the recent change of land tenure, the Maasai are presently compelled to the use of donkeys in land tillage. Among the Maasai the use of cattle for any work is not acceptable due to the communities cultural views of the value of the bull and the cow for blood meal and milk production respectively. Women also transport building materials on the backs of donkeys.

In Kitui

In Kitui district, the donkey and to a limited extent, oxen share the daily activities in the homesteads. Water drawing from far away distances can only be reached by the two animals. The donkey is either loaded on its back with water cans, or pulls a cart full of the water cans. The 200-litre drum is an alternative. Oxen pull the cart, fully loaded with water containers. Land tillage, whether for planting or weeding is done in Kitui district by both the donkey and oxen.

The Kitui community (the Akamba) are agriculturally oriented and rely heavily on power from these two animals for food production and transportation to the farm stores (from the field) or to the markets for sale of farm produce. Noteworthy is the fact that both donkeys and oxen are generally important power sources in most homes in both high and low potential areas. Another source of animal power to supplement these two can be wild animals.

Special experience with the African buffalo (*Syncerus cafer*)

Procedure of taming the wild animal

A calf is captured from the wild at the age of one week. This is the right time to start taming the young animal. This starts with talking to and touching the animal until it becomes docile relative to its earlier

wild temperament. Next stage is to go further in the touches by concentrating on touching the base around the ear lobes, perineum (around the tail parts) and beneath the genitals. After some 3(three) days or so, the buffalo calf will respond respectively and follow the caller when he calls it by name for feeding. At this same period of bottle-feeding, the calf is ready for early draught animal power (DAP) training sessions.

After three to four months of daily training sessions which starts with a rope around the neck, followed by pulling a drug-log, a loaded cart and finally the plough, the animal would be ready for use as a draught (Mutweti, 1995) animal. To note is that the time duration of training will depend on the trainers ability, the animals temperament, and the age at which training is initiated.

The buffalo experience proves that the potential for animal power is immense as compared to both the donkey and the bull. An adult buffalo weighing 400-900 kg can walk at an average speed of about 3 km/h thus developing 0.56 kw-equivalent to 0.75 (HP) of energy (Okalebo, 1995). This data is extracted from "ENERGY for world agriculture, 1979".

In the case of speed, the buffalo is only beaten by the the horse and the mule. In power production, the buffalo is second to the horse (1.0 and 0.75 HP respectively).

Other possible exploitation

A short experience with the eland is that the animal can be easily tamed for animal power source. The animal gets used to the human habitat quicker. It quickly responds to the touches and callings of humans during training.

It has higher speed than the domestic animals. The zebra is another animal which can be tried as a DAP animal. It is strong and resistant to diseases as compared to domesticated animals. It is stronger than the donkey and this and from the same family, therefore exploitable.

Advantages of wild animals to domestic animals

Diseases – wild animals are known to have a higher resistance as compared to the domestic animals.

References

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Examples are the East Coast Fever (ECF), the foot and mouth disease (FMD), the deadly trypanosomiasis from the tsetse-fly, just to mention a few.

Survival on low – nutrient feeds

Unlike domestic animals, the wild ones do not need supplementary feeding. They are able to cover enough from field feeds, which is commonly available in the environment. Also their water requirement is low as compared to their domestic counterparts.

Recommendations

Now that the 21st century will definitely bring in more challenges to cope with, like the increase in human population leading to a higher increase to the need of food production, and transportation additional means to DAP besides the domestic lot, the wildlife provides the obvious opportunity to supplement.

The Kenya Wildlife Service and others can co-operate on the possible exploitation of this important natural resource. Then we will be ready to tackle these challenges of the millennium.

African researchers are therefore challenged to dig deeper into our natural resources in this case the wildlife which we are so rich in.

Conclusion

As the farmers look upon us for help in handling the many challenges of farming and transportation, let us put our heads together and offer them at least some solution. As such, some thing more applicable and relatively adequate to farmers will be found, in the exploitation of our wildlife as a solution to draught power problem.

Tropical countries are endowed with an enormous number of wildlife which are only used for tourism industry and not exploited for agricultural and transport purposes. Their incorporation with farm activities may revolutionalize agricultural production with less cost.

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