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**A Donkey's Worth in South Africa:
Domestic Laborer or Export Product;
Socioeconomic impacts of China's skin
trade on South African donkey owners**

Master Thesis

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Abstract

Within South Africa, rural communities use working animals instead of, or combined with mechanization for farming and chores. Development progress may have evaded these areas yet impacts them through globalization and China's expanded market power. The burgeoning market for ejiao, a popular Traditional Chinese Medicine made from boiling donkey hides is a growing issue. Wealthier Chinese consumers, a stalled South African rural population who missed development's benefits plus increasing economic and political engagements between the two countries allows a monopolized, and often exploitative market for donkeys. Politicians are eager to partner with Chinese ejiao retailers despite resulting decimation of donkey populations in some areas of Africa and destruction of livelihoods.

I evaluate the value of donkeys as domestic laborers within South Africa along with how China's rapidly expanding market for ejiao and simultaneous consumption of donkeys has affected South Africa to answer in which context donkeys are more valuable. Interview responses and cost-benefit analyses are used to answer the research question and results are interpreted through Amartya Sen's capability approach and Raul Prebisch's dependency theory. I determined that donkeys have the greatest value as domestic laborers for South African donkey owners and communities. Rather than maintaining value as foreign export products to China, the export of hides is instead, a loss for South African donkey owners and communities.

Abstrakt

Within South Africa, rural communities use working animals instead of, or combined with mechanization for farming and chores. Development progress may have evaded

these areas yet impacts them through globalization and China's expanded market power. The burgeoning market for ejiao, a popular Traditional Chinese Medicine made from boiling donkey hides is a growing issue. Wealthier Chinese consumers, a stalled South African rural population who missed development's benefits plus increasing economic and political engagements between the two countries allows a monopolized, and often exploitative market for donkeys. Politicians are eager to partner with Chinese ejiao retailers despite resulting decimation of donkey populations in some areas of Africa and destruction of livelihoods.

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Klíčová slova

Donkeys, Development, Socioeconomic, South Africa, Rural, Ejiao, China, Working Equines, Agriculture, Capability Approach, Dependency Theory, Cost Benefit Analysis, Trade, Market Distortions

Keywords

Donkeys, Development, Socioeconomic, South Africa, Rural, Ejiao, China, Working Equines, Agriculture, Capability Approach, Dependency Theory, Cost Benefit Analysis, Trade, Market Distortions

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Declaration of Authorship

1. The author hereby declares that she compiled this thesis independently, using only the listed resources and literature.
2. The author hereby declares that all the sources and literature used have been properly cited.
3. The author hereby declares that the thesis has not been used to obtain a different or the same degree.

Prague, May 8 2019

Kristen Elizabeth Binda

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Institutes of Economic & Political Studies

Master thesis proposal



1 Master Thesis Proposal

Institute of Political and Economic Studies
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Date: October 18, 2018

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Proposed Topic:

A Donkey's Worth in South Africa: Domestic Laborer or Export Product; Socioeconomic impacts of China's skin trade on South African donkey owners

Registered in SIS: Yes **Date of registration: October 18, 2018**

Topic characteristics / Research Question(s):

My thesis will focus on the following research question: are donkeys in South Africa more valuable as “domestic laborers” or as export products to supply China’s demand for Ejiao (an ancient Chinese Traditional Medicine)? Within South Africa, rural owners and communities remain faithful to working animals either instead of, or in combination with mechanical means of farming and daily life.

In many instances, donkey owners and their families are shown to greatly rely on their donkeys as primary or sole sources of income. This growing understanding has spurred efforts to address a lack of funding, support and research into the socioeconomic costs and benefits of donkey ownership. While understanding the worth of donkeys as domestic laborers within South Africa remains vital, I plan to evaluate this in tandem with assessing how China’s rapidly expanding market for Ejiao, and growing presence is affecting South Africa. I hope to find through my research an answer to the question, “are donkeys in South Africa more valuable as domestic laborers or as export products for China’s Ejiao market?”

Working hypotheses:

1. Hypothesis #1: Retaining donkeys as domestic laborers versus selling for export to China to is a more socioeconomically beneficial option for South African owners and communities.
2. Hypothesis #2: Cost/benefit analyses of working donkeys will show that their benefits outweigh costs on an individual, communal, and gender-oriented basis.
3. Hypothesis #3: Donkeys are beneficial for women's advancement, gender equality and poverty eradication in rural areas of South Africa, the skin trade damages these potential advancements.
4. Hypothesis #4: Working donkeys are overlooked (as with the burgeoning issues related to the skin trade) in the development sector despite the significant role they play in socio-economically benefitting rural owners and communities.

Methodology:

My primary methodology will be through surveying owners, community members and organizations connected with donkey owners in rural areas of South Africa. I will perform cost-benefit analysis through showing simple production functions of those with and without donkeys in various communities and plan to gain personal testimony from rural communities as to the impact that donkeys have in their lives. Simultaneously, I will research the economic conditions linked to the donkey skin trade between South Africa and China, assessing institutional agreements such as formal slaughterhouses, legally and illegally sourced sales and exports of donkeys and the financial gains that South Africa stands to lose or gain by participating openly or covertly (via illegal trades) with China's demand for Ejiao. Where possible, data sets from organizations performing surveys on rural populations in South Africa, tracking legal and illegal trade operations, or those more specifically focused on donkey ownership. Literature reviews of organizations working on these issues will be included from The Brooke, SPANA, The Donkey Sanctuary UK, World Horse Welfare, World Organization for Animal Health and independent research from other academics studying this topic.

Outline:

1. Introduction: concept of Ejiao, China's demand, South Africa's market, the role of donkeys in South Africa
2. Theoretical background and review of world literature: special emphasis on 1) impacts of working donkeys in Africa (ideally South Africa more specifically);

- 2) China's traditional medicine market and its impacts on developing countries; 3) Actions of other African countries who have allowed versus banned the trade and 4) South Africa's current socio-economic outlook for rural communities
3. Analysis
 - a. Current legal status of the donkey skin trade in South Africa, and current functional/operational status of the trade
 - b. Socio-economic role of donkeys in South Africa
4. Cost/benefit analysis of donkey ownership in South Africa for rural owners and communities
 - a. Description of the Data
 - b. Regression Model
 - c. Discussion of the Results
5. Cost/benefit analysis of the donkey skin trade in South Africa for 1) owners and communities (micro-level) and 2) the country as a whole (macro-level)
 - a. Description of the data
 - b. Regression model
 - c. Discussion of results
6. Assess institutional responses within South Africa to support donkey owners
 - a. Current funding and support levels?
 - b. Working equids as an overlooked development tool?
 - c. Barriers to funding?
 - d. Proposed policy initiatives to incentivize increased funding from public and private sector investors interested in role of donkeys in rural communities
7. Assess institutional responses within South Africa to either combat or support donkey skin trade with China
 - a. Current funding, support and initiatives for either position of the trade?
 - b. Potential benefits of engaging openly in the trade with China?
 - c. Methods in progress to protect owners from market failures/negative externalities
 - d. Proposed policy initiatives to incentivize increased funding from public and private sector investors interested in the trade
8. Conclusions
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Introduction

Within South Africa, rural owners and communities remain faithful to working animals either instead of, or in combination with mechanical means of farming and daily life. While developmental progress may have evaded these areas, its impacts are felt through spreading globalization, trade, and a bolstered Chinese middle class who (via benefits from development) have expanded market power. China's presence in Africa, and South Africa more specifically, spans a broad range of industries and is primarily carried out through legitimate means. However, burgeoning consumer markets for Traditional Chinese Medicine (TCM) made from animals obtained in South Africa is a growing issue.

While the rhino horn, elephant tusk, pangolin scales, lion bones and other elements of exotic and endangered animals have been highlighted as targets of TCM, another animal, the donkey, has recently become the face of TCM's socioeconomic impacts in Africa. Ejiao, a highly popular TCM is made from boiling the hides of donkeys to obtain a gel which is produced in form of capsules, powders and snacks for consumers. The combination of a rising Chinese middle class who benefited from the impacts of development, a South African poor, rural class who has largely missed its benefits plus increasing economic and political engagements between the two countries equates to a niche, monopolized, and often exploitative market for donkeys. Politicians and eager businessmen within Africa, and South Africa, have been eager to partner with Chinese ejiao retailers which has led to widespread decimation of donkey populations in some areas of Africa, and simultaneous destruction of already vulnerable livelihoods.

In many instances, donkey owners and their families are shown to greatly rely on their donkeys as primary or sole sources of income. Thus, the terminology of "domestic laborers" is used throughout this paper to describe donkeys. While some may exclusively reserve such a label for humans, we must consider that just as a human would likely perform the same tasks (for a much higher economic and social cost) in South Africa, donkeys are used instead to perform necessary labor activities. The International Labour Office (2018) describes domestic labor in two parts:

“(a) the term domestic work means work performed in or for a household or households;

(b) the term domestic worker means any person engaged in domestic work within an employment relationship”

While exclusively referring to “persons”, I have expanded this definition to apply to donkeys due to the capacity in which they fulfill these requirements otherwise. Although a formal employment relationship can clearly not be established, the ongoing maintenance (providing food, water, shelter and care) between donkeys and owners may provide a semblance of a reciprocal employer/laborer relationship.

This growing understanding amongst aid groups, NGO’s and institutions focused on development’s short fallings has increased efforts to address inadequate funding, support and research into the socioeconomic costs and benefits of donkey ownership. While evaluating the worth of donkeys as domestic laborers within South Africa remains vital, I evaluate this in tandem with assessing how China’s rapidly expanding market for ejiao, and simultaneous consumption of donkeys has affected South Africa. I hope to find through my research an answer to the question, “are donkeys in South Africa more valuable as domestic laborers or as export products for China’s ejiao market?”

The use of “value” and “worth” (used interchangeably) throughout this paper must be examined due to their application to a range of concepts described. When referring to the worth or value of donkeys, I avoid the concept of greater worth as applied to sentient, living beings. Rather, I refer to the worth, or value of donkeys *to* humans in two scenarios: 1) as domestic laborers within South Africa, and 2) as foreign export products from South Africa in the form of skins to China. Scenario 1 assesses worth and value based on two criteria. First, refer to the economic contributions of donkeys for their owners and communities, thus their economic value/worth. Second, I refer to the social contributions of donkeys for owners and communities such as gender empowerment, expanded capabilities, improved life outcomes, increased access to necessities etc. This notion of worth from a socioeconomic perspective is applied dually to the worth/value of donkeys in Scenario 2 as well by assessing the gains or losses associated with the trade for South African donkey owners and communities.

To accomplish this review of the value of donkeys in South Africa, I first provide an overview of current and previous research on four fundamental elements of what is involved in this research: 1) donkeys in Africa, 2) ejiao and the donkey skin trade, 3) impacts of the donkey skin trade in South Africa and 4) South Africa and China's economic and political relationship. Next, I introduce my methodology which is comprised of two primary theories, Amartya Sen's capability approach, and Raul Prebisch's dependency theory. Combining these theories, I explain my mixed method approach of applying in-person interviews and a cost-benefit analysis to address the dual social *and* economic evaluation of a donkey's worth in South Africa. The analysis uses three sections to outline general demographic information from the interview locations, then displays responses to the interview questions, and applies a series of cost-benefit scenarios. Finally, the discussion utilizes Sen's capability approach and Raul Prebisch's dependency theory to analyze sections one, two and three of the methodology to evaluate the research question.

1. Literature review

Before discussing the methodology and analysis of this thesis, I will outline four important factors related to the donkey skin trade. First, the literature review covers one of the most important components of the trade, donkeys, whose contributions as working animals place them in direct conflict as a supply of hides for a growing global trade and secondly, for ejiao, the gelatin made from their hides and used in Traditional Chinese Medicine. Third, the review explores the donkey hide trade within South Africa and fourth, examines the complex political and economic dynamics existing between China and South Africa. Understanding these specific areas is essential to building an assessment of the donkey skin trade as a whole and should provide a base from which to assess the methodology and analysis sections of this thesis.

1.1 Donkeys in Africa

This section introduces donkeys in Africa through a highly generalized lens to provide a description of their function and value throughout an extremely diverse continent. While the specific duties of donkeys are defined by unique geographic, climactic, cultural, infrastructural, economic, and social factors, their physical efforts on behalf of humans

squarely place them in the category of working animals, and more specifically, working equines. Horses, mules and donkeys were essential in building the Western world, but today are largely irrelevant in their previous working capacity. Hobbyists now keep them for sport or pleasure and equine ownership is generally correlated with wealth due to high costs of their maintenance, medical care, equipment and sporting fees. While their waning importance in Western countries leads many to assume they are globally obsolete as well, this certainly is not the case (Pritchard, 2010). The function of equines for most of the developing world (Asia, Africa and Latin America primarily) remains in a working capacity and correlates with relatively low economic, infrastructural and technological development levels. The underappreciated or unknown connection between equines, (and specifically donkeys) and development by governmental, private and nonprofit institutions has led to a generally low level of attention to the subject.

The pool of research focused specifically on socioeconomic aspects of donkeys, their owners and development is relatively small but has been undertaken seriously by a concentrated group of researchers. The review below synthesizes their works which span from quantitative research on donkey population trends and welfare evaluations to ethnographic, qualitative surveys examining the application of donkeys in small rural villages throughout Africa in the time period between 1990 and 2010. The Animal Traction Network of Eastern and Southern Africa (no longer active) appears to have motivated a large portion of this research and inspired a generation of studies funded by non-governmental organizations and institutions focused on working equines and their intersections with development. Recent initiatives have added to the breadth and scope of research, yet foundational aspects of the findings remain relatively similar. Where these groups have been able to make unique contributions to the literature is in their efforts to connect the use of working equines to a set of goals within the United Nations' Sustainable Development Goals. After examining existing literature, I selected two focus areas: 1) usage of donkeys in Africa, and 2) donkeys and development with the subtopics of modernization, women, the advantages of donkeys versus other common livestock and the Sustainable Development Goals.

1.1.1 Donkey Usage

Donkey usage depends upon their location. Geographic, cultural, climactic, infrastructural and economic particularities define the exact nature of their work. Paul Starkey of the Animal Traction Network and Priyanthi Fernando (2000) noted the disappearance of donkeys from large-scale commercial farming, mining operations and long-distance transportation due to increased financial and institutional capacity for these activities and the concurrent adoption of mechanization. Generalized tasks such as “transport and agricultural assistance” are mentioned in all fifteen papers analyzed for this section. Moreover, detailed descriptions of this work help provide outsiders from Western societies with a clearer view of the usefulness of donkeys. Jill Goulder (2016), through her comparative research of working animals in ancient versus modern societies, found that donkeys – historically and today – are used year-round in Africa as means of transport and additional income through hiring or lending practices by owners, and for ploughing during wet seasons. Joy Pritchard (2005) who performed (to-date) one of the largest analyses of working equines throughout developing countries, states that donkeys perform tasks:

“...from carrying people and packs in mountainous regions and deserts, through ploughing, harrowing, seeding and weeding farmland, to moving every imaginable type of load through the streets of the world’s biggest cities. They draw and distribute water, fetch firewood for the household, bring fodder for cattle, take agricultural produce to and from markets, thresh corn, drag sand from rivers, pull minerals from mines, collect rubbish from city streets, transport bricks and metal for building, move tourists and refugees, carry the sick and women in labor to hospital, and are often a vital part of weddings and ceremonial occasions.”

Through an assessment of a donkey provision program in Ethiopia, Martin Curran and D.G. Smith (2005) were able to establish that donkeys were useful in urban areas as well as rural locations often due to infrastructural challenges faced in cities. There, the inability of vehicle access to urban centers facilitated the use of donkeys to transport firewood to and from rural and periphery locations as well as distribute goods within the city which were delivered from outside by trucks. My personal observations within large urban centers of Morocco have found similar infrastructural barriers to automobiles, whose solutions are found through using donkeys to pack or cart goods. Paul Starkey (1995),

coordinator for the Animal Traction Network research group summarized common functions of donkeys in the daily life of rural South Africans in one of his articles *The Donkey in South Africa: Myths and Misconceptions*. Starkey noted that donkeys carry water which saves time that can be used for other, more productive tasks; till soil on crop-producing land and assist in its harvest by then transporting those crops; carry goods, household items and construction materials; take people to rural clinics to seek medical attention or transport those who cannot walk (young, sick, old or pregnant) and “generally save time, increase human production and reduce human drudgery”.

Finally, researchers commonly cite the applicability of donkeys not only to their owners, but also to their surrounding community. This includes family members who are typically not charged, those who pay for owners of donkeys to perform tasks for them, or those who hire donkeys from owners to perform donkey-powered work such as transport of self or materials (crops, water and firewood for example) or agricultural tasks. Fernando and Starkey (2000) highlighted these trends in their article, *Donkeys and Development: Socio-economic Aspects of Donkey Use in Africa*. Using a combination of studies performed throughout the African continent they estimated that 43% of households had donkeys overall, with another 20% using them in some borrowed capacity in Limuru, Kenya and the practice of hiring donkeys was common in most rural communities of Botswana. Additionally, they found that not only do donkeys provide a source of economic capital for owners in many rural communities in Africa, but social capital as well. An Ethiopian community listed in their study used donkeys every day to collect water. Owners found it culturally unacceptable to charge for “something as basic as fetching water” and thus were able to provide the community with a necessity free of charge and in turn, enhance their social network and wealth.

1.1.2 Donkeys and Development

Neoliberal policies and development schemes which, in their attempt to advance the overall capacity of developing countries, have actually resulted in further marginalization and isolation of many in their targeted areas (Leftwich, 2000). Fernando and Starkey (2000) critique classical development models for their one-size-fits-all approach to developing countries, assumption of the superiority of industrialized nations and belief in trickle-down economic theories. They challenge neoliberal development models which

advance industrialization in the Global South as a tool to mimic the growth that Western countries experienced throughout the industrial era. Fernando and Starkey state that while in some countries and for some groups, modernization processes have achieved their stated goals (increased agricultural output, urbanization, movement away from traditional cultures, higher educational achievement, and better health and social provisions), others face greater levels of economic and social inequality than before. Often, the people facing the brunt of poor development strategies are those with fewer resources who reside in rural areas and are the most vulnerable (Leftwich, 2000). Fernando and Starkey assert that in some cases, the use of donkeys can “allow disadvantaged people to re-establish links with the social and economic processes from which they have been excluded,” and to “withstand some of the threats that ‘development’ has had on their lives and livelihoods.”

Donkeys are most successful in filling these development gaps when they fill voids where mechanization in Africa (especially in form of tractors and automobiles) has been unattainable or fallen short due to its inapplicability to unique economic, social and infrastructural barriers. Coinciding with this factor is an emerging body of research promoting the use of donkeys as a sustainable alternative to mechanization. Second, donkeys are noted for their potential to aid in the advancement of women, in societies which typically reserve working animal-use and its subsequent economic gains for men. And third, substantial research piloted by veterinary studies shows the suitability of donkeys versus other common production and working livestock to difficult African environments.

Martha Geiger and Alive Hovorka (2015), in their study, *Donkeys in Development: Welfare Assessments and Knowledge Mobilization*, emphasize the importance of understanding how donkeys complement humans in a working capacity and describe them as “active agents in human development and well-being”. The researchers promote donkeys as affordable and easily-accessible and obtainable transportation methods while being adaptable to “harsh environments and challenging development trajectories of the Global South”. E.M. Negomasha, et al., (1999) in *Empowering People Through Donkey Power into the Next Millennium*, view donkeys as an ideal source of power for smallholder farmers in Africa due to their reliability, sustainability and cost-effectiveness. Donkeys easily and inexpensively reproduce, their value increases from time of birth

through working age, and they are independent from necessitating imported technology, foreign exchange, and transport infrastructure. In *Donkeys and Development: Socio-economic Aspects of Donkey Use in Africa*, Fernando and Starkey (2000) advance the use of donkeys in ameliorating damaging effects of development regimes to rural communities. They note that land takeover for commercial, export-oriented farming, population pressures, political incentivization for sedentarization and privatization of quality land and recurrent droughts have resulted in a loss of valuable grazing and cultivation land for smallholder farmers. This in turn has made traditional land and animal management techniques much more difficult to perform, and the raising of cattle (a traditionally prized livestock product for work and consumption throughout much of Africa) increasingly difficult. Donkeys are an economical solution to rising challenges for smallholder farmers and rural households in Africa as they allow for inexpensive cultivation on increasingly smaller and less arid plots of land and negate dependence on expensive and often unreliable inputs in remote areas such as fuel, spare parts for mechanized tools (tires, mechanical equipment, batteries, wiring etc.).

Women's roles in the development process cannot be emphasized enough, yet they consistently face barriers to achieving equality due to cultural, physical, economic and societal impediments. Aside from their beneficial capacity to fill gaps that mechanization and industrialization have left in development spheres of Africa, donkeys have the ability to bridge cultural divides in ways that many other livestock animals in Africa do not. Cattle and horses, for instance, are generally owned by men, and reserved for their use and economic gains. In Goulder's (2016) comparative analysis, she found that the role of donkeys in Africa as a culturally accepted tool for women compared to other livestock has a longstanding history, primarily due to the donkey's lowly-perceived status and assumed correlation with relative poverty. In ancient cultures and today, donkeys allow women the opportunity to enter income-earning activities for themselves and gain respect and social capital in their community by lending donkeys for free or for hired work to family and neighbors. Responding to the notion that economic and technological development can negatively disrupt women's work, fertility and role in family and society in developing countries by increased inequality and exclusion, Goulder advocates donkeys as a "guerrilla technology, reversing the effect and undermining established cultural rankings by providing the most useful to the less-privileged of a society." E.M. Negomasha et al., (1999) confirm this, acknowledging that in rural areas men primarily

benefit from the adoption of modern technologies like motorcycles, tractors and trucks. He views this transition as a window for women and other disadvantaged groups to take advantage of the “release” of donkeys from men.

Many authors cite the benefits that women also receive from donkeys due to reduced physical strain and labor since most household tasks performed with the assistance of a donkey (collecting and transporting water, firewood and other goods as well as ploughing) would be completed solely by women without them. Curran & Smith (2005) analyzed the results of a development project aiming to improve key livelihood indicators for women in Ethiopia by giving them donkeys. After two years they found that 22% of women felt relieved and less tired by no longer carrying firewood and water by themselves and said their health had improved as a result; 84% said that their lives were better than before they had the donkeys. They concluded that the data showed a positive correlation between donkey ownership and the women’s well-being, with increases in income and physical relief as well as allowing children to go to school because of reduced time and labor for household tasks as result of donkeys.

Along with their demonstrated ability to provide alternate means of power in Africa and amend some of the challenges that women face, donkeys are recognized as a species which is well adapted to Africa’s particular geographic and infrastructural challenges and may even be a superior choice than other more commonly or traditionally used livestock. Most studies compare cattle and donkeys, as cattle in Africa are highly regarded in most African societies for their capacity to work and provide consumable products like dairy and meat (Fernando & Starkey, 2000). While donkeys are certainly capable of meat and dairy production as well (and are appreciated for it in a relatively small number of areas) the consumption of their products is widely considered taboo, and thus their value in African societies tends to be lower (Yilmaz et al., 2012; Perry, 2006). This does however, present an advantage to those who wish to purchase donkeys as this maintains a relatively low sale price for them. Fernando & Starkey (2000) found that throughout most of Africa, donkeys are roughly one-eighth the price of cattle.

Recent changes in climate have forced a shift in the way that many cattle owners in Africa maintain and use their herds, primarily due to cattle’s low resistance to drought. Negomasha, et al. (1999), cite a study performed in Zimbabwe during a severe drought

period which reported mortality rates of cattle at 75%, compared to 15% for donkeys in the same area. They attribute this to the unique ability of donkeys to utilize water in a frugal capacity (second only to camels), withstand extended periods without water and manage on sparse and high fiber diets when necessary. Additionally, they authors analyzed donkey-powered output versus that of other working livestock under similar environmental conditions. They found that donkeys are a more efficient power unit in agriculture than cattle or horses, the ploughing performance of four donkeys was comparable to that of a two-cattle team, and that donkeys provided a significantly faster method of transportation than cattle as well. This is mirrored by the research of Orhan Yilmaz (2012 at the University of Igdur Department of Animal Science, who found that donkeys provide traction capability of 24% of their body weight, which is superior compared to other common working and draught animals.

Using donkeys rather than cattle for work purposes also increases food security for communities facing volatile weather patterns for two primary reasons. First, donkeys are not typically considered for consumption, whereas cattle are an important source of protein and income (sold meat) for communities. Utilizing donkeys for work while reserving cattle for meat and dairy production and consumption in communities likely increases the consumable outputs from cattle (Negomasha et al., 1999) while ensuring the community is work-reliant on donkeys, which are better suited to the range of diseases and environmental challenges presented in Africa. Second, dependency on cattle for cultivation leaves food insecure areas at risk of losing their primary power source because of cattle's high susceptibility (in comparison to donkeys) to disease and drought (Starkey, 1995; Negomasha et al., 1999).

Nonprofits like The Brooke, The Donkey Sanctuary and World Horse Welfare have built upon research which establishes donkeys and working equines as helpful development tools and argue for their application to ten of the seventeen Sustainable Development Goals. Only recently have donkeys been linked directly to distinctive development goals, yet this move has helped to increase awareness within development spaces of the benefits that they provide. The goals were set in 2015 with a time frame through 2030 and aim to build upon the success of the previous set of Millennium Development Goals, while emphasizing an updated approach which addresses the shortcomings of the former goals as well. The South African SDG Hub (2018) stated in their report, *Implementing the*

Sustainable Development Goals in South Africa: Challenges & Opportunities, that despite the overall success of the earlier goals, they were “less consultative in their development and more directed towards alleviating the basic needs for food, education, health and sustainability of the least developed countries,” whereas they view the new goals as “highly consultative, inclusive and applicable to all countries.” This expanded scope has opened doors for groups like The Donkey Sanctuary and World Horse Welfare to connect working equines (including donkeys) into larger development agendas. The following six key areas and goals in their joint 2017 report *Sustainable Development Goals: How the Welfare of Working Equids Delivers for Development*, essentially work to summarize the research outlined above. Under the first area, “Strengthening Livelihoods” they have assigned SDG 1 – No Poverty, SDG 8 – Decent Work and Economic Growth and SDG 17 – Partnerships for the Goals. Second, is “Building Resilience” which is assigned SDG 2 – Zero Hunger, SDG 8 – Decent Work and Economic Growth and SDG 13 – Climate Action. Area three, “Enabling Education” aligns with SDG 4 – Quality Education, area four, “Empowering Women”, is matched with SDG 5 – Gender Equality, and area five, “Access to Water” coincides with SDG 6 – Clean Water and Sanitation. Finally, area six, “Productive Farming” is assigned to SDG 2 – Zero Hunger, and SDG 12 – Responsible Consumption and Production.

1.2 Background of Ejiao and the Donkey Skin Trade

The recent explosion of demand for donkey products in China stems from the country’s rapidly expanding market for ejiao, sometimes called Donkey Hide Gelatin, an ancient Traditional Chinese Medicine extract originating from donkey skins. Ejiao as clinically defined by Wang (2013) is “Colla corii asini (E’jiao), donkey-hide gelatin prepared by stewing and concentrating from *Equus asinus* L. donkey hide, a traditional, widely used Chinese medicine.” The gelatinous product – often taken in the form of capsules, powder or added to snacks – dates back to the Han Dynasty (206 BC – AD 220) and is considered amongst the top three tonics available, along with ginseng and deer antler (Nan, 2015). Its production is heavily concentrated within the Dong’e county in Shandong province of China, with light production in the nearby provinces of Henan and Hebei (HSI, 2018). Ejiao is experiencing a resurgence in popularity due to a rising Chinese middle-class drawn to its supposed ability to enrich the blood, suppress bleeding, treat cancers and gynecological diseases (Wen-Long Li et al., 2016) promote youthful skin, and increase

energy and virility (Knowles, 2016). Demand for ejiao is so great that China has become unable to domestically supply donkeys for its market and has begun importing donkey skins from other countries around the world.

Expansion of ejiao-related business outside of Chinese borders and spreading awareness of its impacts on other countries encouraged a sharp increase of news coverage from media outlets which seek to understand the economic, political and sociological impacts of ejiao's increased popularity. Welfare concerns for the donkeys and their owners has drawn the attention of groups like The Donkey Sanctuary and Humane Society International which both compiled to-date the most comprehensive reviews of ejiao and the donkey skin trade's impacts on developing nations with large numbers of donkey-reliant citizens. Concurrently, Chinese ejiao producers and the traditional medicine industry have emphasized and marketed ejiao to boost its consumption amongst an increasingly affluent consumer base through medical studies, advertising campaigns, and national and global alliances with industry organizations and lobbies. Thus, the literature review below is a market analysis derived from a wide range of perspectives which are reflective of ejiao's highly prized status as a cultural heritage item in China, and its perceived threat or opportunity in donkey-reliant developing countries.

For China, ejiao production has unquestionably proven to be a lucrative business, reaching total sales of USD \$5 billion in 2016, up from just under USD \$1 billion in 2008 (Agence-France Presse, 2017). The Humane Society International (2018) estimates that by 2020 annual sales for ejiao will total USD \$7.8 billion, based on calculations which expect to see 15% growth each year. Producers have benefited from the Shandong Bureau of Commodity Price lifting of price-fixed requirements on donkey hides which were in force by the Chinese government from 1994 – 2010 (The Donkey Sanctuary, 2017; HSI, 2018). Prices rose over 41 times from roughly USD \$20 to USD \$830 per kilogram of ejiao between 2001 – 2017 (Zhu & Weng, 2018). Since 2006, the product's largest producer, Dong-E-E-Jiao has raised its prices sixteen times, with its highest price hike at 60% in 2011, and the last recorded raise from USD \$593 per kilogram in 2015 to USD \$704 per kilogram in 2016 (HSI, 2018). Other major brands have also increased their prices on average by 30% in the same period (ibid). Chinese consumers who expect to pay around 400 yuan a month for a daily dose in form of snack or powder capsules (Knowles, 2016) are seemingly undeterred by these steep increases, as retail sales of ejiao

products in drugstores increased from USD \$1 million in 2015 by 32.8% in 2016 and have topped drugstore sales reports in the following years (HSI, 2018).

Consumer demand for ejiao has increased domestic employment and investment opportunities within China and especially the rural province, Shandong, the epicenter of its production. The province boasts over 200 ejiao production facilities and employs over 100,000 people (HIS, 2018). Dong'e, a relatively small county located in Shandong which houses 100 of the facilities (Knowles, 2016) is home to Dong-E-E-Jiao, a public company which employs 10,000 of the 200,000 county residents and processes an estimated 1 million donkeys (Knowles) hides each year and totaled over USD \$600 million in sales for 2018 and controls 70% of the total ejiao market (Agence-France Presse, 2017).

The side effects of ejiao's incredible popularity amongst Chinese consumers has led to a rapid decline in the supply of the product's key raw ingredients: donkey hides, by way of live donkeys in China. While exact numbers of donkeys used annually in the trade are difficult to obtain, based on estimated total national and exported sales of 14,000 tons of ejiao in 2017, the Humane Society International (2018) has stated that at least 4 million donkeys would have been required as inputs in the same year. The Donkey Sanctuary (2017) estimates the actual demand for skins at around 10 million per year, especially as producers have begun storage processes to leverage present market rates for hides which increase in price annually. Combined market forces of growing demand and steadily declining raw materials have resulted in not only high prices for ejiao, but also for its primary input (live donkeys or donkey hides). In China, the value of live donkeys increased by five times from around USD \$75 in the early 2000's to USD \$390 in 2016 (Knowles, 2016), while the price of hides has increased from around USD \$3 to also USD \$390 in the same time period (HIS, 2018). High demand for donkeys and the Chinese agricultural shift towards mechanization has driven China's domestic donkey population from being the world's highest in 1990 at 11 million (Ye, 2017), to just 4.5 million in 2017 (FAOSTAT, 2017). President of Dong-E-E-Jiao President, Qin Yufeng remarked on the issue in 2017, stating that his company, the largest producer of ejiao, "cannot meet global ejiao demands by merely relying on resources in China" (Ye, 2017). Chinese producers are thus forced to source over half of their donkeys from outside of China and have cast a wide net throughout their neighboring countries, Africa, and Latin America (Knowles, 2016).

While the global population of donkeys is 45 million (FAOSTAT, 2017), The Donkey Sanctuary (2017) estimates only 1.8 million are not utilized for work or pleasure purposes and are available for ejiao production annually. The shortage has led to a host of issues associated with the burgeoning global trade for donkey skins with particularly devastating impacts throughout Africa where donkeys are crucial working tools for large populations of vulnerable citizens. Exploitation of owners who, enticed by immediate compensation by Chinese businessmen or African middlemen, face long-term financial, production and livelihood losses from the sale of their donkey(s) is a significant concern for many development-focused groups. A study performed by The Donkey Sanctuary (2017) stated that the net average value of working donkeys in developing countries is around USD \$24 per year, which, compounded over an average working span of between ten to twenty years for each donkey equals USD \$240 - 480. Price per live donkey for the ejiao trade averages just under USD \$100, while skins can sell for upwards of USD \$500, and finished products at USD \$400 per pound (Nuwer, 2018).

Since owners are involved only in the sale of live animals, market gains are exponentially larger for middlemen and Chinese producers than what is received by sellers. Even more alarming is the wave of theft reported throughout Africa, especially in small, unsecure villages and rural areas. While exact numbers of stolen donkeys are currently unavailable, reports are numerous of entire villages devastated after waking up to realize their animals are missing, often finding their skinned remains close by (The Donkey Sanctuary, 2017). Stolen donkeys present an even greater loss for owners and communities as they are denied financial compensation and must invest in new livestock if possible and securitization to protect remaining animals. Supply shortages of donkeys in African countries has caused the price of selling and purchasing donkeys to skyrocket, leaving locals unable to replace old, unusable, sold or stolen animals. Responses to the donkey skin trade in Africa have varied since its arrival in roughly 2013, with many countries initially welcoming to the potential promise of economic development. However, there are currently fifteen countries which have acted against the trade either through explicit governmental bans or by utilizing strategic economic impediments such as stringent veterinary requirements, limiting transport or slaughter regulation and miniscule export allowances (The Economist, 2018). These measures are reflective of the growing consciousness that the negative consequences of the donkey skin trade lay mostly heavily upon low-income, under-resourced communities (Knowles, 2016).

1.3 The Donkey Skin Trade in South Africa

To connect the concepts above and move forward with a specific focus upon the donkey skin trade between China and South Africa I will provide an overview of donkey skin trading activity which flared from 2014-2017 between the two countries. The literature responding to the donkey skin trade in South Africa exists primarily in news reports which narrate its criminal elements such as theft, linkages with other illicit trades or export and cargo violations. While South Africa has no official ban on the trade and has remained neutral, if not tentatively welcoming to it, there are existing regulations in place through the Animal Rights Protection Act and Meat Safety Act 40 of 2000 (Sigauqwe & Whittles, 2017). Donkey skin exports are limited to 10,500 skins per year and must be obtained from donkeys who were slaughtered in an approved equine slaughterhouse, of which there is only one in operation (two were recently closed due to violations) for the whole of South Africa with a per day quota of 20 donkeys (de Greef, 2017). A massive discrepancy exists however, in the allotted number of exports and estimates derived by officials in the wake of criminal investigations.

A handful of extreme cases have circulated through South African news outlets and drawn attention to the issues of the trade. In 2017, the Asset Forfeiture Unit of the National Prosecuting Authority found that 12,776 hides were exported to Hong Kong between a seven-month period by Anatic Trading, a company located in China Town, Johannesburg when it was caught attempting to smuggle an additional 2,921 hides with an estimated value of over USD \$300,000 (Nkala, 2017; Bega, 2017). In the same year, the Highveld Horse Care Unit was given a tip which led them to the discovery of over 5,000 donkey hides, also estimated at well over USD \$300,000 (Cruise, 2018), stored in a shipping container just outside of Johannesburg. Upon further investigation after being granted a search warrant police found “thousands more” nearby, only a very “small number” of which the Chinese men charged with the crime could account for with receipts of purchase and documentation showing the donkeys were processed at a licensed slaughterhouse (Sigauqwe & Whittles, 2017). Another notable case from Johannesburg occurred in 2016 when officials at the OR Tambo International Airport inspected thirty-nine “foul-smelling” cargo containers labeled “cladding”, which contained over 300 undeclared donkey skins destined for Hong Kong, registered to a Chinese man (Bega, 2017). Rural areas have also been the focus of larger prosecution cases, with thirty-five donkeys found

after being skinned alive in a rural area of the KwaZulu-Natal province (Pieterse, 2018), and more than 100 found “bludgeoned to death with hammers” on a farm in the Northern Cape province (Bega, 2017).

What these cases indicate are some of the most common issues found from the trade: severe welfare issues for donkeys, avoidance of official slaughter processes which ensure the animals and their hides are free from diseases, overextended export quotas, and smuggling. On top of this list of violations, the trade has been implicated numerous times in South Africa’s already well-established illegal wildlife trade and black market. Ockie Fourie from the Stock Theft Unit of the South African Police Service was contacted for the National Geographic’s investigation into the overlap of the donkey skin trade with other illicit wildlife crimes and said, “Aside from the animal cruelty issues, we’re concerned that these skins could be used to hide other goods” (de Greef, 2017). His concerns appear valid, as police found cocaine smuggled in donkey hides in Bolivia and Colombia, and it was reported that the Taliban utilized donkey skins to conceal land mines in Afghanistan (ibid). Within South Africa, the National Society for the Prevention of Cruelty to Animals discovered seven tiger skins hidden in a shipment of over 1,000 donkey skins (Cruise, 2018), while another investigation targeting illegally procured donkey skins found the production of dried abalone to be occurring on site as well – both products are prohibited for internal or external trade under South African law and were destined for China (de Greef, 2017).

Coverage and official recordings of theft throughout South Africa which are linked to the trade are difficult to determine as adequate evidence is often unavailable. Many of the losses go unreported in rural areas, and donkeys are not officially tracked in any agricultural databases in South Africa. Poignant stories exist however, which detail the damaging impacts of trade-related theft in South Africa. Ikgopeleng Tsietsoane, a young donkey owner who had six of his nine donkeys stolen in October 2017, said, “Jobs are scarce here, and donkeys are our source of income, if you own donkeys you can work for yourself...The theft is taking away our livelihood. If nothing is done, this village will soon have no donkeys left” (Agence-France Presse, 2017). Lucky Khobe Muntsu from the North West province also had several of his donkeys stolen and found them dead after blows from a hammer, with their skins removed. He told reporter Bega (2017) of the South African newspaper, Saturday Star, “One of the mares was pregnant. I felt sick. My

donkeys mean everything to me,” and that he was now consumed with worry over his family’s future due to the loss of the donkeys. Bega detailed how with the support of his donkeys, Lucky provided for his wife and four children and despite retaining a few donkeys, said, “I used to be able to do six or seven loads [of transport work] a day – now I can only do two because the donkeys become too tired...I can’t sleep. I’m so scared they will come for the rest.” In a village north of Pretoria, Mpho Mashele found four of her twelve donkeys hacked apart after being skinned. She reported to Anita Powell (2017) from Web Publica Press, that villagers feel forced to either sell their donkeys or risk having them stolen by Chinese buyers or African middlemen, a difficult decision as she said, “We love our donkeys because they’re the only source of income...Without them, we will starve.”

Intensifying rates of illegal slaughter, donkey theft and smuggling associated with the trade since 2015 has drawn attention from a range of South African institutions such as the NSPCA, the Department of Forestry and Fisheries, the National Prosecuting Authority, the Highveld Horse Care Unit and multiple provincial police departments and smaller animal welfare charities. Consensus between these groups is that immense damage is being done to donkey-reliant communities who are targets of the trade, criminal elements are commonplace, and the South African government should make a concerted effort to stop the trade until its impacts can be better evaluated. On the contrary, the South African government announced plans in 2016 to partner with Chinese businesses interested in expanding the potential of South Africa’s donkey skin market. Plans were established in the North West province through the government’s Department of Rural, Environmental and Agricultural Development (READ) to develop feedlots and a slaughterhouse for donkeys to facilitate a commercial trade in meat and hides to China (NWPG, 2017). Patrick Leteane, chief director for rural development in the province, said:

“We’re first looking at mobilizing those willing to participate and then getting our colleagues in China to provide more information about how to keep donkeys, farm with them and trade them...We want to start with 500 donkeys. We’re working with the police and animal welfare groups because their concerns are valid...There is a lot of interest in our communities. This is about enlightening them. In other countries, donkeys

were killed to the point where they nearly became extinct. We don't want that. This is about sustainable use.” (Bega, 2017)

Another article, *Demand for Traditional Chinese Medicine Fueling Rising Slaughter of Donkeys in Africa*, by Agence-France Presse, shared by the South China Morning Post in March, 2017, quotes Leteane saying, “The aim was to create commercial opportunities for people in rural areas who own these animals...We wanted to unlock a whole value chain that would involve breeding, feedlots, slaughtering and export.” Opponents argue that these plans have not undergone sufficient research including thorough impact assessments on the current usage of donkeys in the North West province, criminal aspects of the trade, comparison case studies of countries which have legalized the trade, welfare implications, and environmental surveys.

1.4 Economic and Political Relations Between China and South Africa

To conclude the literature review, I will examine the broader economic and political ties that connect South Africa and China. A great deal of attention has been paid to this subject by academics in both countries as their relationship is pivotal for the development of both. Below, is the synthesized material from six recent scholarly articles which assess the mutual threats and promises arising from South Africa-China relations. I first present an overview and background of South Africa-China economic and political partnerships which developed since the 1990's, and finish by outlining the primary theoretical perspectives guiding academic interpretations of these interactions as either promising or threatening for South Africa.

1.4.1 Background of South Africa-China Relations

McKinsey's (2017) report, *The Closest Look Yet at Chinese Economic Engagement in Africa*, on Chinese and African economic relationships highlights South Africa as one of only two African (along with Ethiopia) “robust partners” to China. This is due to South Africa's “clear strategic posture toward China”, “high degree of economic engagement in the form of investment, trade, loans and aid”, and close relationships with Chinese provinces (ibid). In turn, this has helped China to view South Africa as a “true partner” which is “reliably engaged and strategic for China's economic and political interests” and

thus can expect ongoing and rapid growth from Chinese investment (ibid). Mark Beeson, Mills Soko and Wang Yong (2011), in their article *The New Resource Politics: Can Australia and South Africa Accommodate China?* confirm this perspective, stating that China has “designated South Africa as a ‘preferred country’ on the preferred continent for its investments.” This, the authors say is due to South Africa’s unique capacity within Africa to engage in the scale of manufacturing and service industries required by the Chinese market (ibid).

The ascension to this esteemed status began in the 1960’s when China politically supported Southern Africa’s liberation movements, the increased openness of African economies in the 1980’s. Economic structural adjustment programs throughout the 1990’s which emphasized liberalization of trade and privatization of state assets and opened pathways to investment in Africa as China was entering its period of substantial economic growth (Moyo, 2016). In 1998, the desire between both countries to forge deeper political and economic ties led to the establishment of a formal diplomatic relationship between China and South Africa (Beeson, Soko & Yong, 2011). Following this, the Pretoria Declaration was signed between South Africa and China in 2000 and pledged a “spirit of partnership and constructive dialogue” between the two countries while emphasizing “the moral imperative for developing countries to strengthen capacity for cooperation and mutual support in the international system” (ibid). Continuing agreements like The Partnership for Growth and Development in 2004, Programme of Cooperation on Deepening the Strategic Partnership in 2006, and the signing of the Beijing Declaration and Chinese invitation for South Africa’s inclusion to BRICS, both in 2010, have continued and strengthened diplomatic and economic linkages between the countries (ibid).

The South African Consulate in Shanghai and the South Africa-China Business Association (SACBA) work to support opportunities for South African businesses who are looking to also invest and trade in China, helping to ensure there is a two-way economic relationship between the countries (Shelton, 2004). South Africa’s Department of Foreign Affairs (DFA) established that automobile parts, agricultural produce, pollution controlling equipment, manufacture technologies, wine, technological development and cultural crafts are key items for South Africa to provide to China’s market (ibid). These efforts are visible through steady reports of two-way trade,

increasing from USD \$800million in 1998 (arrival of formal diplomatic relations), to USD \$16.3 billion in 2009 whereupon China emerged as South Africa's largest trade partner, and South Africa securing the position as China's largest trade partner in Africa, consuming over a quarter of China's total trade as well as direct investment with the continent (Beeson, Soko & Yong, 2011). In 2018, Zhang Hui of *China Today*, reported that Chinese investments in South African industries comprised primarily of marine economy, mining, finance, manufacture and infrastructure exceeded USD \$13 billion (Hui, 2018). Bilateral trade sat at USD \$39 billion in 2017 (Business Live, 2019) with Chinese exports of USD \$1.6 billion, primarily comprised of electric, textile and metal products to South Africa and imports of USD \$680 million, mainly of minerals from South Africa (Hui, 2018; South African Market Insights, 2018).

1.4.2 Theoretical Perspectives

China's status as an emerging global power is seen as a catalyst for two primary areas of partnership with South Africa. First, its steady growth requires a vast supply of raw materials, of which South Africa is relatively well endowed. Second, to counterbalance historical political and economic advantages of Western nations, China has sought to deeply engage with, and empower developing countries in the Southern hemisphere to solidify alliances and in turn, shift global power structures to its favor. Sam Moyo (2016), in *Perspectives on South-South Relations: China's Presence in Africa*, identified two common theoretical approaches within academia which respond to this rising phenomenon. First, that China is undertaking a process of recolonizing Africa through its aggressive economic and diplomatic partnerships and second, that China's actions are resultant from globalization processes wrought by the marginalization of Africa by previous Eurocentric domination makes this possible, yet an alternate (positive) outcome may be possible (Moyo, 2016).

First Perspective: Moyo (2016) describes how the recolonization thesis argues that China's role as a dominant force in today's global economy enables it to colonize Africa, particularly through its extraction of natural resources, predominantly one-sided growth and limited relative investment in Africa's overall development. These views are strengthened by concerns that investment and growth emanating from China actually serves to monopolize Chinese trade throughout Africa rather than strengthen inter-

African country trade and has low employment gains for Africans as Chinese companies tend to employ Chinese labor within Africa rather than local populations (Moyo, 2016; Bradley, 2016). Resources are particularly scrutinized as the extraction of raw materials from Africa was a cornerstone of colonial development, and political and societal sensitivities to its continuation by China and actual disadvantages for Africa are evident.

This has placed South Africa in a tenuous position. Its citizens are concerned with honoring the legacy of liberation movements and ideals of an independent African economy, while the government – concerned with sluggish economic growth and persistent unemployment rates of over 25% – is simultaneously wooed by China’s attractive promise of investment in return for export of the country’s plentiful resources (Bradley, 2016; Alden & Wu, 2016). The Chinese government’s capacity to ensure continued growth is increasingly linked to citizens’ perception of its performance legitimacy, which is critical within their political system for the maintenance of power (Beeson, Soko & Yong, 2011). This motivates intensive cultivation of relationships between China and other resource-rich countries like South Africa which holds 33% of the world’s chromium, 77% of manganese, and 88% of platinum reserves and other mineral products like iron ore, aluminum, nickel, copper, zirconium, vanadium oxides, chromium ores, granite, platinum and gold (ibid). In return, China follows a persistently neo-colonial pattern of exporting value-added items back to South Africa such as clothing, plastic, electrical and technological products and an increasing rate of high-value items like vehicles and agricultural machinery (Alden and Wu, 2016).

Alison Bradley (2016), in *China and South Africa: Emerging Powers in an Uncomfortable Embrace*, relays how Chinese perspectives and propaganda emphasize the trade relationship as mutually beneficial as it targets the comparative advantages of each country. In Amelia U Santos-Paulino’s (2011) cross-sectional examination, *Trade Specialization, Export Productivity and Growth in Brazil, China, India, South Africa and a Cross Section of Countries*, she also expounds the value of trade for developing countries, citing that “exports are a major source of foreign exchange and a channel to new technologies and knowledge spillovers”, with “studies showing a strong positive connection between exports and growth.” Most importantly, however, she stresses that “the composition of exports is crucial in determining the strength of growth”. Santos-Paulino (2011) lauds China for their exemplary performance in their export industry

which her research categorizes as highly-skilled and technological, well-balanced and diversified, and specialized. This contrasts with the primarily low value-added, low-technology and low-skilled labor style of exports emanating from South Africa (ibid). What this equates to in economic reality, is a current trade deficit of USD \$943 million (South African Market Insights) for South Africa with China.

Business groups and labor unions throughout South Africa blame cheap Chinese imports of clothing for the near-collapse of South Africa's once prized textile industry, and for the loss of inter-African (especially within the SADC region) trade deals to Chinese firms which originally entered the market through South Africa (Beeson, Soko & Yong, 2011). Former South African president, Thabo Mbeki targeted these issues in 2006, saying "in its [South Africa's] relationship with China, Africa must guard against merely becoming a supplier of raw materials in exchange for manufactured goods," otherwise face being "condemned to underdevelopment", "amounting to a replication of Africa's historical relationship with its former colonial powers" (ibid).

Second Perspective: Moyo's (2016) analysis of the second perspective outlines how China's enlarged presence in Africa actually works positively, and if properly leveraged by African states can assist them to resist disruptive or exploitative foreign threats in a way which was not previously possible by allowing "room for maneuver". This is explained as China's investments having enabled Africa a wider spectrum of choice than was previously available in pre-Chinese involvement, where Africa was essentially cornered into submission by dominant Western forces and allows for diplomacy characterized by broader economic and political alliances (Moyo, 2016). Primarily, this perspective emphasizes the capacity for Africa to negotiate for greater access, more favorable, and less "tied" conditions within traditionally Western-dominated international funding institutions when riding on China's strengthening coattails, as well as access new finance channels created by China and other Southern emerging powers like India (Beeson, Soko & Yong 2011).

China has focused its efforts strategically on South Africa as one of its investment and trade destinations for a number of reasons, but primarily due to South Africa's recognized status as a leader of the African economy and political sphere in its post-apartheid era. The leadership and example exerted by South Africa within Africa mirrors China's role

as a development beacon to Asian countries and greater development spheres (Bradley, 2016). The two have found common ground in their ambitions to act as bastions of progress in the South, with China acting as a conduit to South Africa's ascension to greater channels of political and economic opportunity and influence, as modeled through its membership in the BRICS forum upon Chinese invitation (ibid). Many view China's role as an alternative funding source with a different and potentially more effective development paradigm than South Africa's past relationships with the West as its defining, and most attractive attribute (Beeson, Soko & Yong, 2011; Bradley, 2016; Alden and Wu, 2016). Amongst the Chinese, Beeson, Soko & Yong (2011) state that they perceive their role in South Africa as one which helped spark the "African renaissance" by creating development opportunities, promising investments and acting as a modern financial and political partner in the wake of Western abandonment of Africa.

China responded to arguments regarding their ongoing trade deficit with South Africa and the critique of continued neo-colonialism through raw material exports in 2006 through a speech by then-president, Hu Jintao:

"It is natural that new issues and new challenges may arise. Yet, compared with larger interests of China-Africa cooperation, these issues, which occur in the course of advance, can surely be resolved through friendly consultation and deepened cooperation. China takes seriously the concerns about the imbalance in the structure of China-Africa trade and the scope of Chinese investment" (Alden and Wu, 2016).

In 2012, Jintao expressed similar views and encouraged continued cooperation between the two countries in the UN, G20, BRICS and other international spaces to "increase the collective voice of developing countries and propel the international political and economic order toward a more fair and reasonable direction" (ibid). China not only vocalized its understanding of South African concerns but took steps towards formal recognition through a provision in the 2010 Beijing Declaration which emphasizes "working towards a more balanced trade profile and encouraging trade in manufactured value-added products" by "encouraging Chinese investment in South Africa and greater market access in China for South African value-added products" (Beeson, Soko & Yong, 2016). The provision also notes that China "will encourage its enterprises to increase

investment in South Africa's manufacturing industry and to promote the creation of value-adding activities in close proximity to the source of raw materials" (ibid). These favorable conditions do however come with the conditionality that South Africa allows China, "long-term access to South African mineral resources" (ibid).

South Africa's ruling party, the African National Congress, cited China as a "leading example of the triumph of humanity over adversity," regarding their economic development within the last 50 years (Bradley, 2016). The increasing financial interdependence and mutual participation in international forums between China and South Africa (ibid) is commonly linked to South Africa's strategic objective to overcome post-apartheid social problems stemming from concerningly high unemployment, poverty and social inequality (Beeson, Soko & Yong, 2011). Utilizing China as an additional financier to Europe is viewed as a method to diversify and strengthen South Africa's export markets and begin to evolve from some of its persistent socioeconomic issues (ibid). Politically, South Africa seems appreciative of the greater role they have in partnerships with China at international levels and the mutual goals shared by both countries to, as Beeson, Soko & Yong (2011) said, "transform global governance institutions to reflect the changing balance of power in the international system".

2. Methodology

The ongoing donkey skin trade occurring between China and developing countries is a complex and dynamic issue which presents issues and intricacies at a multitude of levels. Economically, the trade is a boon to China's economy while simultaneously decimating the long-term livelihoods in rural villages often targeted in the Global South. Politically, ejiao production is again, immensely beneficial for the Chinese government who relishes its propensity to create jobs and satisfy a growing national consumer base interested in obtaining luxury, China-specific products. For countries facing the burden of the trade, politics are also a primary consideration, generally however, from a conflictual standpoint. Trade agreements between developing countries and China related to the donkey skin trade are risky due to China's monopolistic position in the market. Politicians must decide between allowing a regulated skin trade agreement with China, banning the trade altogether, or turning a blind eye to black market trading or theft and its potential damages.

This leads to the research question, which aims to address this dilemma and assist in guiding future discourse for South Africa and other developing countries facing decisions regarding the donkey skin trade. Through this thesis, I hope to answer whether donkeys in South Africa are more valuable to their owners and the larger community as “domestic laborers” or as export products to supply China’s demand for ejiao. My three working hypothesis through the research are 1) retaining donkeys as domestic laborer’s versus selling for export to China is a more socioeconomically beneficial option for South African owners and communities, 2) the cost-benefit analyses (CBA) scenarios will show that their benefits outweigh costs on an individual, communal and gender-oriented basis and 3) that donkeys are beneficial for women’s advancement, gender equality and poverty eradication in rural areas of South Africa and the donkey skin trade threatens these advancements which outweighs the trade’s economic potential.

The methodology applied to this research question is a mixture of qualitative and quantitative approaches, which is reflective of the layered complexity of the donkey skin trade as mentioned above. In social science research which explores economic, political and social issues in developing countries, this mixed methods approach is advantageous for its ability to navigate between macro and micro variables, and allow for collection of two distinct data sets (Rutberg and Bouikidis, 2018) which are necessary to guide high-level decisions and *also* take into account impact on human lives. Denise Polit and Cheryl Beck (2012) describe five advantages of utilizing the mixed method approach, stating that it enhances complementarity, practicality, incrementality, validity and collaboration. Effectively examining development scenarios depends on researchers’ ability to harness these benefits by utilizing hard data (often delivered from spheres far outside of the actual development environment) and integrating findings from interactions with those encountering the targeted factor in daily life and who are most vulnerable to its impacts. The methodology, therefore, respects this need for balance of both qualitative and quantitative analysis and will alternate between the two methods through three focus areas.

First, I will outline the two theoretical perspectives which guide my analysis of the donkey skin trade between South Africa and China. Amartya Sen, Nobel Peace Prize winner in Economic Sciences in 1998 for his contributions to welfare economics guides the

qualitative perspective of this paper, while prominent Dependency Theorist, Raul Prebisch's work guides the quantitative examinations. Second, I will underscore my reasoning behind utilizing in-person interviews with rural donkey-owners and community members in three provinces of South Africa and introduce the blended qualitative and quantitative approach I have taken in analyzing their results. Third, I will discuss the use of integrating CBA's to understand the research question from an economic perspective and better understand the financial arguments for or against maintaining donkeys as domestic laborers or engaging with the skin trade in South Africa.

2.1 Theoretical Underpinnings

The selection of two theoretical guides for this paper, rather than one, is reflective of the dualistic, micro and macroeconomic nature of the donkey skin trade. Both approaches are rooted in development frameworks and commit to understanding economic phenomena which, while not unique only to developing countries, is pervasive within them. Sen's work was applied most heavily through designing the questions and interpretation of results for in-person interviews. This helped in assessing the worth of donkeys as domestic laborers in South Africa outside of a purely monetary stance and looks also at the ways in which they provide owners with greater freedom, mobility and capability in their lives. Prebisch's influence was particularly useful in understanding the macroeconomic impacts of trade patterns and their potential benefits or threats between South Africa and China. Dependency theory is translatable into a more mainstream understanding of economics which weighs costs and benefits yet uses a perspective that critiques common understandings of competitive advantage in global trade.

2.1.1 Amartya Sen: Capabilities Approach

Amartya Sen is celebrated for his economic theory, the capability approach, which expands mainstream welfare economics or public finance emphasis on poverty by measure of an individual's income to poverty by measure of an individual's freedom to achieve well-being through various capabilities. His approach broadens the common understanding of economic prosperity determined by GDP, to one that assesses to what extent a nation's citizens are free to pursue and achieve goals and outcomes in their daily lives. Rather than prescribing common measures of Western understandings of

development such as increased modernization, he analyzes a person's increased capacity from their current surroundings, essentially "meeting people where they are", rather than "where they should be," in terms of traditional development perspectives. In contrast, Sen (2001) describes primary functions of development as "economic opportunities, political liberties, social powers, and the enabling conditions of good health, basic education and the encouragement and cultivation of initiatives". Additionally, Sen focuses on five types of freedoms in his capability approach: 1) political freedoms, 2) economic facilities, 3) social opportunities, 4) transparency guarantees and 5) protective security. The functions and freedoms listed above are understood to expand capabilities of individuals, thus, greatly enhancing their overall development, and the development of their country as well.

Sen (2001) acknowledges in his book, *Development as Freedom*, that this perspective is antithetical to classic economic and development theories yet emphasizes how, while those approaches have increased overall levels of global development – and subsequent "elementary freedom" – they have left a majority of the world's population out. Sen's primary two reasons for emphasizing freedom as a development tool are: 1) evaluation, due to the necessity of assessing development progress "in terms of whether the freedoms that people have are enhanced," and 2) effectiveness, because "development is thoroughly dependent on the free agency of people." He targets economic exclusion and economic "unfreedom" as primary inhibitors of citizens reaching full economic capacity and examines how these economic states-of-being for individuals delay development processes by negatively impacting social or political freedoms as well.

Sen's capability approach is applied to the interpretation of interview responses in order to understand in what ways donkeys add to or decrease a person's capability in South Africa. By analyzing responses from this framework, I was able to see a clearer picture of the multifaceted impacts, beyond purely income-related variables, that donkeys have for their owners and the larger community in the rural areas where I conducted interviews. In Sen's (1995-A) work, *Inequality Reexamined*, he underlines this notion, stating that "the capability perspective is more sensitive than utility-based approaches to problems of entrenched deprivation." He goes on to emphasize the uses of the capability approach in contrast to traditional economic measures in two specific areas:

“1) it shifts the focus from the space of means in the form of commodities and resources to that of functioning’s which are seen as constitutive elements of human well-being, and 2) it makes it possible though not obligatory, to take note of the set of alternative functioning vectors from which the person can choose.”

Thus, through the capability approach, donkeys are analyzed here as a tool which aids in enhancing the capacity, and thus the freedom of development of rural South Africans.

2.1.2 Raul Prebisch: Dependency Theory

Raul Prebisch examined Argentina’s transition from protectionist agricultural trade policies to an open market primarily centered around exporting high quality beef to Western countries and the subsequent imbalance of trade benefits in the mid-20th century (especially favoring the United Kingdom and the United States). Prebisch theorized that rather than free trade networks between developed and developing countries increasing total wellbeing, the system perpetually favors Western, or “core” countries to the disadvantage of “peripheral” countries, or those outside the central apparatus of power, wealth and development (Love, 1980). This understanding led to the creation of the dependency theory, which asserts that unequal exchange arises because Western countries assert economic and political dominance through imposing trade policies, determining exchange and interest rates, disrupting dependent markets during depressions, dictating conditional loans and absorbing resources *from* developing countries rather than distribute resources *to* them (ibid).

In turn, dependency theory premises that periphery countries are either forced (under colonial conditions) or coerced (under neo-liberal market conditions) to build their economic infrastructure in a manner which suits the demands of core countries (Faletto and Cardoso, 1971). Herein lies the condition of dependency, as the maintenance or potential growth of a developing country becomes reliant upon the continued, or expanded engagement of core countries through export demands. Periphery countries are left vulnerable to potentially exploitative or monopolistic actions, or economic and political disruptions of core countries because they have negated the development of internal markets which would strengthen self-sufficiency, independence and the country’s

capacity to decline unfavorable market conditions offered by core countries (Prebisch, 1970). Like Sen, Prebisch heavily critiques the “promises” of development and modernization in periphery countries and outlined a still-relevant depiction of development shortcomings in his article, *Change and Development*:

“During the phase of outward-looking development which preceded the world depression of the 1930's, no solution of the problem was forthcoming; on the contrary, the increases in income which development brought in its train, and which in many countries were substantial, were concentrated in the few hands that already held land and wealth in their grasp. Since then, in the phase of development which has continued up to the present time, the effects of the process have undeniably been more widely spread out; although it is also true that new patterns of concentration of wealth and income have emerged. Those at the top of the social pyramid have conspicuously prospered; the urban middle strata, too, have increased in size and have raised their level of living, although less than might have been the case, and far from enough to satisfy their growing consumption aspirations. But the benefits of development have hardly touched the broad masses relegated to the lower income strata.”

Reflecting upon the relevance of this statement today, dependency theory is a highly applicable theory to the 21st century, in which we see similar patterns executed by different players than those who initially inspired this thinking. Contemporary development theorists expound the resonation of dependency theory today, stating that the central emphasis of the theory upon global economic and political structures, core-periphery country or regional relations and the importance of historical progression allow for applicability to a changing power dynamic (Kufakurinani et al., 2017). Today, the growing global political and economic influence of China and its status as a more-developed country than African countries enables it to operate similarly to the core countries that Prebisch originally critiqued. Thus, I have flexibly applied dependency theory to assess whether China and South Africa are behaving in accordance with Prebisch’s theory, to the extent that China operates as a core country while South Africa is subjugated as a periphery country in this modernized example of dependency theory.

2.2 In-person Interviews

In planning the methodology of this thesis, it was essential to understand the perspective of donkey owners and community members in rural spaces of South Africa. Bypassing their experiences and perceptions of donkeys and the skin trade felt unacceptable as they are the primary stakeholders of the topic, are already excluded from much of South African society, and have invaluable insight to the value that donkeys have in their day-to-day life. I used interviews to target the individual experiences of donkey owners and evaluate the contexts where a donkey's worth is greatest for South Africans (domestic laborer or export product).

While at the University of Pretoria, (July to December 2018) I employed a mixed-method approach, collaborating with individuals and institutions and using informal interviews to better understand the donkey hide trade in South Africa. This helped me focus on collaborations with the National Society for the Prevention of Cruelty to Animals (NSPCA), the University of Pretoria Veterinary Faculty, The Donkey Sanctuary UK, The Highveld Horse Care Unit, and editor of the Donkeys for Africa Newsletter. These groups have a long-standing history and knowledge of working with donkeys and their owners, and involvement with the donkey skin trade (from an opposition standpoint). I did attempt to connect by phone and email with advocates, or neutral actors in the trade such as operators of South African equine slaughterhouses, auction houses, trading companies and government officials implicated in previous trade dealings. These efforts were ineffectual however as by phone and email I received no responses and was actively warned against making a physical appearance at the site locations of these actors due to concerns for my safety.

With the assistance of the NSPCA I determined a radius for my interviews as the limitations of time and budget constrained my research to a relatively small geographical area of such an expansive country. Working with their Training Unit and Farm Unit (which both have oversight of donkey-focused outreach programs, interventions and criminal investigations) we determined that it would be most time and cost-efficient to focus my interviews in the North West and Limpopo provinces. From this information, I scheduled three interview trips which were completed over a month from January–February 2019 in partnership with the NSPCA to the North West Province, and a

veterinarian from Pretoria with long-standing family and professional connections to two heavily donkey-reliant communities in the Limpopo province and a border town in Mpumalanga province as well.

2.2.1 Individual Interview Design

Prior to scheduling the research field-trips, I established an interview questionnaire designed to evaluate a range of both qualitative and quantitative variables. I selected the semi-structured format for its widely acknowledged capacity to allow greater flexibility for discussion pathways than a structured format, thus producing areas of conversation which may not come up otherwise (Brinkmann, 2013). Kvale and Brinkmann (2008), describe semi-structured qualitative interviews as, “an interview with the purpose of obtaining descriptions of the life world of the interviewee in order to interpret the meaning of the described phenomena.” The interview process itself, is seen not as an end, but a means to an end with the goal of better-understanding phenomena in order to address a research question (Brinkmann, 2013). Putting this to practice, with the objective of understanding the impact of donkey ownership I utilized a four-part, semi-structured set of questions which 1) address demographics, 2) target Sen’s capability approach, 3) analyze cost-benefit ratios of donkey ownership and 4) allow for elaboration on thoughts and understanding of the donkey skin trade.

The sensitive nature of some of the questions, especially related to income, theft of donkeys, and the impacts of losing donkeys paired with my inability to establish long-term rapport with participants led me to adopt a receptive style of interviewing. I avoided questions regarding a person’s total household or personal income, and steered instead towards donkey-related income, attempted to make questions as simple and as few as possible to respect participants’ time, and allowed for open-ended questions which would generate as short, or extensive of answers as participants felt they wanted to give at the time of our interview. This, according to Wengraf (2001), is an approach which “empowers informants and enables them to have a large measure of control in the way in which they answer the relatively few and relatively open questions they are asked.”

Prior to beginning the interviews, each interviewee was provided a quick overview of why we were speaking with them and the research aims, and read the following paragraph

concerning informed consent in their local language. Next, they were shown the digital voice-recording device as well as iPhone that I carried for taking pictures and asked if they were comfortable with the written, recorded and photographed evidence of our interviews being utilized in the analysis section of this thesis. To ensure comfortability with the information being used, I asked again at the end of each interview whether (at the completion of our discussion) they were still comfortable with the material's production.

Informed Consent

Participant #:

Name:

Date:

Location:

I have agreed to participating in this master's level interview process for Kristen Binda. The topic, goal and eventual use of this research has been explained to me and I understand my role as an interviewee. I have accepted these conversations being recorded digitally and by written record and have approved of photos which were taken for possible future use.

Signature: _____

Date: _____

Basic Demographics

I included basic demographic indicators which, when quantified could provide a "snapshot" of the average donkey-owner in these provinces of South Africa. Sen emphasizes the understanding and capture of basic demographics as a foundation of better understanding the relationship between income and capability, as the age, gender, social role, location, or other variables over which a person has limited control are "particularly important" (Sen, 2001).

- Name
- Age
- Gender
- Occupation

- Household status
- Education level
- Years owning donkeys?
- How many donkeys do you have? How many of those are currently able to work (if more than 1)?

Questions Related to Amartya Sen's Capability Approach

Within this section were also general questions regarding donkey ownership in order to better understand the relationship, function, and patterns of donkey ownership within these regions. The questions aimed at understanding how donkeys function in people's daily lives, the overall impact they have upon them, and draw out the deeper workings of capabilities that donkeys allow or disallow for the participants in order to analyze these responses from the framework of Sen's capability approach.

- Q1: Primary reason(s) for donkey ownership?
- Q2: What would happen if you don't have donkeys?
- Q3: Do you use the donkeys for income-generation, or household use only?
- Q4: Does anyone else use the donkey? Who?
- Q5: What would happen if your donkey was sold, stolen or unable to work?
- Q6: Would you use something else to replace it?
- Q7: What advantages do you have because of your donkey? Disadvantages?

Cost-Benefit Analysis Questions

A third set of questions aimed to determine the economic costs and benefits of donkey ownership and glean qualitative understanding as to why owners would or would not consider selling their donkeys, and what qualifying factors were involved.

- Q8: Average cost per month/week/day for donkey?
- Q9: Income earned from donkey?
- Q10: Would you sell your donkey (why/why not)? For how much?
- Q11: How much would you spend to replace your current donkey if you had to?

Donkey Skin Trade-Related Questions

Finally, an open-ended question was utilized to inspire conversation about the donkey skin trade and assist me in gaining insight to how these communities had been impacted,

what information they were receiving, and what their personal thoughts were on the subject.

Q12: Do you know about the donkey skin trade? What do you think of it?

2.2.2 *Group Interviews*

Prior to engaging in interviews, I had no specific question-set established for group interviews as they were difficult to plan for ahead of time, I was unsure in what format they would occur or who the focus group might be. In each of the three locations I visited I facilitated group interviews which were all conducted “on-the-fly”. Thus, I did not follow the format of questions above, but rather, tuned the questions to examine areas importance, interest, or mixed-answers from the in-person interviews. These three group interviews proved highly beneficial for conducting a focus-group style of interviewing, which Morgan (2002), highlights for its ability to include “a number of different perspectives on given themes,” as well as flexibility in approach due to more closely mimicking conversational style of discussions. Additionally, Brinkmann (2013) discusses the benefit of focus groups for research topics such as this, which are “exploratory studies in little known domains, or about newly emerging social phenomena,” as they allow for “more spontaneous expressions than in individual interviews.”

Of the three group interviews, I conducted the first with thirteen donkey owners and followed a similar outline to the individual-owner questionnaire. Due to the relatively large group size I emphasized the application of very simple quantitative indicators such as ensuring a count of how many donkeys were owned by each participant, what occupations the participants had, and utilized a simple matrix to determine which of the commonly stated donkey-activities occurred most amongst the group. Additionally, I used the time to facilitate a lively, and interesting discussion on the donkey skin trade. The second interview was conducted with a young group of six rural residents, none of which own donkeys themselves, nor did their families. I asked open-ended questions about community perceptions surrounding donkeys, how they see donkeys used, and their interpretation of their value to owners as well as the larger community. This was a highly useful interview in determining which areas to visit nearby with large populations of donkeys, and we held an interesting conversation around donkey meat consumption locally and throughout South Africa. The final group interview was conducted with a

mixed group, two of them donkey owners, two without donkeys. I integrated questions from both preceding interviews which assessed through analytical questions (based on the dynamics of the participants) how donkey owners and non-donkey owners in communities relate with one another and evaluate the interdependency formed between the groups.

2.2.3 Interview Conditions

South Africa is host to eleven official languages, with well over 30 others recorded. This, along with my unfamiliarity with the rural spaces in the North West and Limpopo provinces necessitated the use of utilizing three different translators for the interviews, who each also served as gatekeepers to these spaces either as an established community member, or their historical relationship through community outreach. Noting this and wanting to acknowledge the immense benefit provided to me in my research by these individuals, I prefer to refer to them as interview facilitators, rather than simply translators. The level of education, understanding of donkey-usage and specifics of the donkey skin trade varied through the three interview facilitators, yet each was fully capable of understanding the interview questions, explaining them in the local language, and reinterpreting to me in English.

Because donkeys are not considered in South African agricultural data, and their use in rural spaces is often informal and rarely linked to any type of contactable business or organization, the interviews were conducted within three locations known to be densely populated with donkeys, in relation to other rural spaces where donkeys were rarely used. Prior to engaging in the interviews, I established a goal of achieving a minimum of ten responses, with an upper-bound goal of twenty based on my budgetary and time constraints. I achieved twenty-three individual interviews, with three group interviews as well through the month of interviewing. Interview participants were selected through convenience and snowball sampling methods because we were restricted to identifying donkey owners in communities as we walked and drove through. The most common identifiers were 1) individuals working with donkeys at time of our passing 2) homes with relevant donkey-equipment visible in the front yard such as a cart, harnessing, or livestock coral 3) large stockpiles of firewood which likely were collected by donkeys and 4) referrals from other community members or interviewed participants. This method, while

necessary for the constraints faced, does negate the possibility that my sample of interviewed owners is completely representative of their community, other donkey owners in the surrounding areas, and greater South Africa. Most important to note, is relative exclusion of females and children from interviews which is likely related to having all-male interview facilitators and utilizing convenience and snowball sampling in communities where women and children are minimized actors. Additionally, based on variation of community and planning dynamics, the number of interviews vary across location with some areas less represented than others.

2.3 Cost-Benefit Analysis

Very simple CBA's of four scenarios were utilized in the analysis to understand the dynamics existing within possible outcomes surrounding the donkey skin trade. First, I analyzed the CBA of a donkey owner retaining their animal for working purposes, second, the CBA of a donkey owner who sells their animal to the donkey skin trade versus buyers and Chinese retailers. The third scenario applies to the same actors as the second but in the case that a donkey is stolen from its owner, and fourth, the CBA of an isolated set of costs associated with commercially farming donkeys. The figures which were utilized are a combination of primary data obtained from my interviews with donkey owners, as well as a set of averaged estimates from the NSPCA and several donkey rescue farms in South Africa regarding the commercial farming CBA. Data for the donkey skin trade must be interpreted with caution as it operates largely as a black market in South Africa and elsewhere, inflationary reporting of sales is common amongst retailers to drive value, and many estimates originate from reports which emerged between 2016 and 2017 and have not been updated since.

While limiting, these conditions are handled adequately by a CBA in which the simplicity of showing a disparity of costs and benefits is easily interpreted, even in the face of estimations. Ultimately, decision makers value CBA's for their capacity to demonstrate whether a decision, project or circumstance should be accepted or rejected based on its ability to provide greater benefits than its total cost (Johansson & Kristrom, 2018). The advantage, however, may be dependent upon who is interpreting the CBA. British economist, John Hicks' theory on this phenomenon, was summarized by Per-Olov Johansson & Bengt Kristrom (2018), that "a project might mean that those who are

initially well-off make further gains while those far down on the social ladder lose out.” To avoid this, they suggest weighting individuals or groups according to criteria such as income or total wealth. Within the scenarios described above, importance of consideration for benefits or losses has been applied to South African donkey farmers as being of utmost importance. Buyers and Chinese retailers who operate under monopolistic, often exploitative conditions are given little to no weight here as the concerns inherent within rural, Sub-Saharan spaces such as lacking access to water, medical care, stable food supplies, infrastructure, education and employment are not issues faced by the generally wealthy businessmen benefiting from the trade.

South African officials in the North West province were heavily criticized for engaging in trade agreements with Chinese leaders in 2017 to establish a commercial donkey farming operation. A primary complaint was the lack of research and inclusion of a CBA and impact assessment prior to entering formalized discussions. Thus, I applied an extremely simplified CBA of a commercial farming scenario which dealt only with a small selection of the costs associated with commercially farming an individual donkey over the lifetime of the animal prior to its readiness for being skinned (two years on average). As CBA’s are regularly used by governments to make decisions (Aceves, 2018) the lacking research into basic figures of costs for commercial donkey farming versus benefits of the skin trade should have been a preliminary step in the decision-making process. For the purposes of this paper, I felt it was a necessary inclusion and one which helped enlighten readers on the complexity of South Africa’s engagement in the donkey skin trade with China.

It should be noted within this section that while CBA’s typically include indicators such as “net benefits” or “net losses” which encompass non-monetary factors such as jobs created, lives saved, or education outcomes, I have prioritized the application of Sen’s capability approach to “catch” these types of variables.

3. Analysis

The global reaches of the donkey skin trade facilitate international linkages between China and the developing countries from which they obtain donkeys. Chinese producers or locally hired middlemen connected with Chinese retailers obtain live donkeys, then

perform slaughter and skinning processes in the country of origin either in legal or illegal settings. Afterwards, the skins are shipped (legally or illegally) to China for processing into ejiao and sold primarily within China, although demand from Chinese immigrant populations elsewhere is also increasing (Wang, 2013). This creates a dynamic which operates at both the international and local level via economic, political, and institutional impacts. Therefore, this analysis seeks to address the consequences of the trade in a comprehensive manner by considering the micro and macro influences of utilizing donkeys as domestic laborers in South Africa, versus as raw export products (in form of skins) to China for ejiao production. I will explore these factors through a mixed method approach within three sections. Section one outlines general demographic information from in-person interviews and secondary data, section two provides interview responses from questions targeting Amartya Sen's capability approach, and section three applies a series of cost-benefit analyses.

3.1 Interview Demographics

The section below provides a basic overview of the demographic settings of the three rural villages I visited to allow a general framework of understanding for the spaces, individuals and challenges present. While some studies tend to underemphasize the importance of demographic variables in analyzing socioeconomic or sociopolitical issues, I have chosen to examine them in a thorough manner to establish grounds for utilizing Sen's capability approach. He underlines how the common welfare economics emphasis upon commodities discourages the application of demographic issues as an important consideration as well, and one which can "shift the evaluative space in the direction of public discussion and social concern" (Sen, 1995). In critiquing this approach, he finds that it links economic wealth and people's freedom, which he determined is a limited viewpoint due to the demographic constraints and variations existent between individuals which arise naturally, and by cause of public or social factors. Rather, demographic inclusion within economic analysis is a way to understand economic challenges or achievements in a more comprehensive manner which more acutely addresses the human element of progress or regression by preferencing the lives led, and freedoms enjoyed versus solely examining commodity measurements (ibid).

To assess demographics from the three interview locations (Bahananoa in the Limpopo province, Hluvukani in the Mpumalanga province and Disaneng in the North West province) I have used primary demographic data collected from in-person interviews as well as secondary information collected from the most recent South African census in 2011, relevant government webpages and other statistical offices. I first present descriptions of individual locations to allow for a presentation of their unique characteristics and present specific data where relevant, next I have outlined secondary datasets for the three areas, and end with common demographics identified through interviews in the three locations.

3.1.1 Site Description and Unique Demographics: Bahananoa

The first location I traveled to for interviews was a small village, Bahananoa, located within the Limpopo province, about five hours Northeast of Johannesburg. I selected this location after a series of informal interviews with Dr. Quixi Sonntag, a University of Pretoria veterinary professor with close familial ties to the region, and her personal observations of a “very high number” of donkeys and donkey usage in the area. She agreed to schedule a trip with me to facilitate introductions and assist in the research process and transportation. The village is located within the larger Blouberg local municipality, and the two fall under the greater designation of the Capricorn district municipality. The region is primarily rural and has strong ties to its tribal and traditional roots which the Blouberg.gov website’s “About” page attributes to a “rich history of physical resistance to the early 19th Century Boer colonial incursion” and “unabated community disapproval” to the introduction of apartheid-era Bantustan and trust systems. The site goes on to claim that:

“The consequences of this particular stance resulted in both the central and Bantustan governments starving the communities around Blouberg of basic infrastructures and related development needs. Hence, it is today one of the least developed regions of the province.”

Low infrastructural development circumstances due to relative abandonment by past and present government structures is offset by a strong sense of traditional pride and central focus on tribal leadership in the area, however. The Bahananoa Tribal Authority Office

is a central figure in village activities and gatherings as well as managing community grievances and striving for enhanced local economic development. Prior to engaging in the interviews, I was instructed to visit the Tribal Authority Office to receive permission to conduct interviews and bring a small gift for the current Chief. When introducing my topic, the Tribal Authorities were very interested in the idea of paying specific attention to donkey owners in the town as they are rarely the focus of any particular effort, and as we discussed the various tasks performed by donkeys and their owners, they agreed upon the important role they have in the community.

To conduct interviews, Dr. Sonntag connected me to a local named Silas, who served unofficially as a village community advocate. He had led a strong effort to pressure the municipal government to pave the main road in town so the village would be better connected to the larger town of Blouberg and enhance local access to education, healthcare, and larger markets. Frequent and heavy rains during half of the year had continually damaged the dirt road, making it difficult and slow to pass on for the few cars, local taxi busses and donkey carts which serve as the area's primary mode of transport. Thanks to his grassroots organizing efforts, Silas was well connected with the Tribal Authorities, business owners, and other locals. We spent the first day discussing project goals, the donkey skin trade, donkey usage in the area and searching for donkey owners to request their appearance the next day at the Tribal Office. With his assistance, I conducted two individual interviews prior to a group of twelve donkey owners arriving at the same time, whereupon we decided it would be best to utilize the opportunity for a group interview. These circumstances were beneficial for obtaining a unique group perspective and allowed for data collection which differs slightly from what was available in the other two locations.

Group Interview

Date: 16/02/2019

Interview Facilitator: Silas

Village: Bahananoa

Basic Demographics:

- 12 community members who all owned and use donkeys for personal, paid or combined work
- Age: Ranged from mid 20's-mid 60's (rough estimate)
- Gender: All male
- Occupation: All relied upon donkey-related work through collecting water, sand, firewood and hired transport of other materials, cultivation, and transporting people
- Education: Unable/uncomfortable with asking about education levels in the group setting
- Household: Unable/uncomfortable with asking about household size in the group setting
- Donkeys owned by each group member: 1, 12, 9, 4, 2, 6, 8, 8, 9, 7, 26, 7 (Sum: 99)

After identifying which activities took place most often when using the donkeys, (water, sand, and firewood collection, transportation, and cultivation) I utilized a rapid assessment tool to understand which activity took place *most* often. Water collection and was selected by five participants, followed by general transport selected by two participants (this could consist of people or goods), and sand and firewood collection and cultivation follow with one participant each saying they performed this activity the most out of the rest.

Table 1. Participant Ranking of Most Frequent Tasks Completed with Donkeys

Water	Sand	Firewood	Transport	Cultivation
X	X	X	X	X
X			X	
X				
X				
X				

3.1.2 Site Description and Unique Demographics: Hluvukani

I continued on from Bahananoa with Dr. Sonntag to my second interview location, Hluvukani, a larger rural village which is just outside the border of Limpopo province,

and falls under the Mpumalanga province designation. Roughly six hours from Johannesburg, the village is located within the Bushbuck Ridge Municipality which borders Krueger National Park to its Eastern, and partially Southern boundaries, and encompasses numerous other popular reserves such as Blyde River Canyon Nature Reserve, Bosbokrand Nature Reserve, and Andover Nature Reserve. The village of Hluvukani is a half hour drive from the Orpen Gate of Krueger National Park and thus receives a relatively higher level of development support through tourism initiatives and the presence of the University of Pretoria Faculty of Veterinary Science satellite operation, The Hluvukani Animal Clinic. Despite relatively higher development conditions than witnessed in Bahananoa, the area remains strained with poorly paved roads, lacking access to financial institutions, and few options for local transportation.

The close quarters of a large cattle economy and Krueger National Park facilitate the need for close veterinary monitoring of livestock to ensure diseases are not transferred from wildlife to domestic herds of animals, especially those which could carry foot-and-mouth disease. The University of Pretoria's Han Hoheisen Wildlife Research Station operates a rotating schedule of dip-tanks for local cattle owners of the area paired with scheduled and emergency veterinary outreach, and the Hluvukani Animal Clinic which treats domestic pets like dogs and cats. My relationship with Dr. Sonntag allowed for me to stay at the University of Pretoria research station and conduct interviews under the unofficial oversight of their local agreement, negating the need for me to meet with local Tribal Authorities. To conduct interviews, Dr. Sonntag connected me with Philemon, a local employee of the Hluvukani Animal Clinic who she knew as a previous participant from her study on rabies awareness and communal education methods. Philemon, like Silas, seemed to know almost everyone in the area and even surrounding villages and was excellent to work with on the interviews as he had a clear understanding of human-animal relationships and challenges through his work as an Environmental Monitor. His expertise as an Interview Facilitator, strong knowledge of local donkey owners and the use of a car and my longer timeframe in the area allowed us to reach a much higher number of owners than was possible in Bahananoa. Thus, keeping in mind the consistent sampling restrictions faced, the demographic information gained from Hluvukani is somewhat more comprehensive of the overall picture for donkey owners in South Africa. Additionally, the demographics from the group interview are relatively skewed from the remainder of participants for a number of factors examined below.

Group Interview

Date: 18/01/2019

Interview Facilitator: interview was completed in English with introductions by Dr. Sonntag

Village: Hluvukani

Basic Demographics:

- Group interview with 6 participants, contacts were previously involved with Dr. Quixi Sonntag's research study. None were donkey owners, we talked instead about community perceptions surrounding donkeys in the area and what the group saw as donkeys' role in the village.
- Age: Between 19 - 35
- Gender: 5 females, one male
- Occupation: Not discussed
- Education: All completed high school, and some had gone on for university or technical courses.

The demographics of this group differ widely from the bulk of interviews as participants were not donkey owners, most comprised of women, and had all achieved high school graduation with at least having some form of higher education. Additionally, their previous participation with Dr. Sonntag on her community engagement study likely enhanced their baseline of knowledge, understanding and perceptions and ability and enthusiasm in communicating about animal-focused topics in the community.

3.1.3 Site Description and Unique Demographics: Disaneng

For my final set of interviews, I collaborated with the National Society for the Prevention of Cruelty to Animals (NSPCA). I initially met with Morgaine James, NSPCA Training Unit Manager and Grace De Lange, Manager of the Farm Animal Training Unit to conduct an informal interview on the status of the donkey skin trade in South Africa. These two women and their units, along with SPCA locations throughout the country have been the primary respondents to cases of theft, illegal slaughter and served as

investigation coordinators and community educators as well. The NSPCA as a whole is the organization in South Africa responding to cases of animal cruelty for all species, but does operate a National Donkey Upliftment Project, dedicated to utilizing a holistic approach improving the lives of donkeys through educating owners and communities about welfare concepts. Their expertise and wide network of contacts with established donkey owners in outreach communities and my research emphasis were well matched, and they assisted me by allowing me to join an NSPCA Training Unit Cadet, Matome, on field work in the North West province. Morgane and Grace felt this area would be most useful to my study due to the previously high rates of stolen donkeys destined for the skin trade, many of whom were found by their owners after being skinned.

We were based in the city of Mafikeng, which had around 290,000 residents at the time of the 2011 Census but undertook interviews in a small radius of villages about forty-five minutes outside of town. From Johannesburg, the village of Disaneng is about four-hour drive, and just shy of the Botswana border. A majority of my interviews were conducted there, a spread-out village which fell on either side of the highway. Out of the three areas I visited this was by far the driest and had been withstanding a long period of drought, putting greater and greater pressure on residents' access to water points.

Like the other locations, the village operates under the auspices of tribal leaders at the Batlounq Ba Ga Shole Traditional Tribal Administration. Matome and I attempted to contact the Chief not only to introduce me, but also to have an interview with him about his own donkey ownership. We were able to speak with and interview his wife, as a co-owner, however. My experience in Disaneng was unique as Matome regularly works with donkey owners through his work as a Cadet on the NSPCA's Donkey Upliftment Project. He was able to expertly identify donkey-owning households and had performed fieldwork in the area as well as responded to donkey theft and slaughter cases in previous years. His ability to concisely explain the research questions, interpret answers and convey concepts about donkey usage and the donkey skin trade in the local dialect was unparalleled and allowed us to efficiently target the largest number of owners for the survey. It should be noted that the responses to some questions may have been altered due to the official presence of an NSPCA officer at the interviews, however the relationships formed between the NSPCA and animal owners and communities is educationally, rather than

punishment-focused. No outstanding general demographic data emerged from this set of interviews for further examination here.

3.1.4 Secondary Data: Bahananoa, Hluvukani and Disaneng

Limited data exists for the villages I visited, the most recent South African Census was completed in 2011 and for these locations lists a select number of variables. Demographic data collected for the larger municipalities does however provide greater insight to overall trends of the larger area. However, this should not be viewed as completely reflective of the interview locations as they were significantly smaller and had generally lower development indicators than municipalities as a whole.

Table 2. 2011 Demographic Indicators from Interview Locations

Location	Population	Households	Area	Female/Male	Race
Bahananoa	1,473	355	6.23 km	54 % F 46 % M	100% Black African
Hluvukani	9,631	2,191	7.67 km	55 % F 45 % M	99% Black African
Disaneng	7,229	1,768	27.62 km	53 % F 47 % M	99% Black African

Source: 2011 South African Census

Table 3. 2016 Demographic Indicators from Local Municipalities of Interview Locations

Location	Population	No School	High School Graduate	Higher Education	Piped Water
Blouberg	172,601	20 %	19 %	6 %	1 %
Bushbuck Ridge	546,251	16 %	33 %	6 %	7 %
Mafikeng	314,394	7 %	30 %	11 %	23 %

Source: 2016 Interim Census Report

Indicators like unemployment and poverty rates were inconsistently available at the local municipality level from 2011 and 2016 Census data, however, Stats SA analyzed these factors in two reports released in 2017 which provide insight at the provincial level.

Table 4. Poverty Ranking and Expanded Unemployment Rate at Provincial Level of Interview Locations

Province	North West	Limpopo	Mpumalanga
Poverty ranking amongst South African Provinces (1-9, with 9 being poorest)	7	8	6
Expanded unemployment rate	43 %	39 %	41 %

Source: Stats SA report, *Poverty Trends in South Africa*, 2017 Table 2.6: Ranking of poverty headcount from 2001 to 2016; Stats SA report, *Quarterly Labour Force Survey*, 2017 Table E: Unemployment rate by province

3.1.5 Primary Data: Bahananoa, Hluvukani, Disaneng

The demographic data below reflects responses from twenty-two in-person interviews, excluding that which was collected in the three group interviews. As previously stated, I avoided asking potentially uncomfortable demographic data such as total income due to the lack of rapport I was able to build with participants from time constraints. Instead, I questioned participants on general demographic indicators, as well as those specific to donkey ownership. Of the participants, the majority, eighteen, were male and the minority, four, were female. All participants were Black South Africans and the responses from each village are as follows: three individual respondents in Bahananoa, eight individual respondents in Hluvukani, and eleven individual respondents in Disaneng.

Table 5. Combined Demographics (Age, Education, Household Size) in Interview Locations

Total	Age	Years of Education	Household Size
Mean	42 years	8 years	6.5 people
Median	50 years	12 years	5 people
Mode	NA	5 & 12 years	5 people
Range	17 – 67 years	0 – 14 years	1 – 14 people

Table 6. Occupational Demographics

Occupation Type	Frequency
Donkey-related work only	7
Pension or other government support only	1

Donkey-related work & pension or other governmental support	3
Cattle ownership only	0
Donkey-related work & cattle ownership	3
Pension or other government support & cattle ownership	2
Formal employment only	0
Formal employment & other	1
Other	3
Unemployed	2

Of the twenty-two responses, seven rely entirely on donkeys as a source of income, with six additional respondents who utilize donkeys and another form of income as well to meet their financial needs. Thus, donkeys are relied upon as laborers for household income for over half of the interviewed participants.

Table 7. Combined Demographics Related to Donkey Ownership in Interview Locations

Total	Years Owning Donkeys	Number of Donkeys	Number of Donkeys Working
Mean	21 years	9	5.5
Median	17 years	7	6
Mode	10 years	5 & 7	4 & 6
Range	4 – 67 years	0 – 20	0 – 11
Sum	NA	216	125

I learned through the interview process that donkey owners tend to own a higher number of donkeys than they use in day to day work in order to rotate them, thus preserving the stamina and welfare of the animals. For example, most donkey carts in the area can be hitched to either two, or four donkeys. Many farmers preferred to have enough donkeys to provide rest days to those which had been in harness the day before, or at least enough to allow a rotating schedule which guarantees a day or two off per week. Additionally, owners all agreed that donkeys under two years of age were not to be worked, as well as their mothers. Some owners stated they only utilized male donkeys for work and retained female donkeys for breeding only, while others utilized females who were not caring for foals. This accounts for the nearly halved number of donkeys who work versus the total sum.

From this data, the average picture of a donkey owner in the areas of South Africa where I undertook interviews is a Black South African male, in his mid-forties with an eighth-grade education. His household is between six to seven people, and he provides for them either entirely through donkey-related income or through a combination of donkey-related income and other form of income. He has owned donkeys for roughly twenty years and has nine, but only works between five and six of them because the remainder are under two years old or nursing mothers. He uses the donkeys primarily for collecting water, firewood and sand as well as cultivating and they serve as a source of transportation as well.

3.2 Socio-economic Analysis of the Role of Donkeys in South Africa

In the section below are the questions and responses which correspond to Sen's capability approach in accordance to order of original interviews. Responses are in table form, and common responses are summarized and expanded where possible with participant's translated quotes as their voices can most clearly convey the meaning of donkeys in their lives. The first portion deals exclusively with responses to questions one through seven from in-person interviews while the second section highlights questions from group interviews which elicit responses for analysis of capability functions of donkeys.

3.2.1 Individual Interview Responses from Bahananoa, Hluvukani and Disaneng

Q1: Primary reason(s) for donkey ownership?

There were five commonly identified reasons for donkey ownership amongst participants, which focused upon the various activities undertaken with them. These were water, firewood and sand collection; cultivation, transport of self, others or goods; and used at funerals and other community events, or other. There was always a combination of at least two activities, and most often three to four stated by owners. The table below shows which occurred the most frequently, and in what combinations. It should be considered that while a number of respondents specifically mentioned transportation as a primary reason, the implicit nature of all other tasks requires donkeys for transportation to and from the performed work-activity as well, thus their role as the "wheels" of some rural communities cannot be looked.

Table 8. Donkey-related Activity Combinations

Activity combination	Frequency
Water and firewood collection	4
Water, firewood and sand collection	1
Water, Firewood, and sand collection Cultivation	6
Water, firewood and sand collection Transport of self and goods	1
Water, firewood and sand collection Transport of self and goods Other	1
Water and firewood collection Cultivation	4
Water and firewood collection Transport of self or goods	5
Firewood and sand collection Transport of self or goods Funerals and other community events	1

Jonas, from Bahananoa is the main provider for his family of six. He utilizes his team of six working donkeys not only for income, but for other family needs as well. He said, “if we don’t have water at our family home, I go take the donkeys and fetch water. And with the other homes in the village, if they don’t have water or sand, they hire me to take the donkeys and get it.”

Beki, from Hluvukani supports his two sons from income made through collecting firewood, sand and water as well as ploughing fields with his seven working donkeys. He said he got donkeys eight years ago as a replacement for cattle after a long period of drought diminished their work ability. He told us the donkeys not only helped to fill in for the cattle, but actually proved stronger for the work they did during the drought period and even afterwards when good rains had come. Shadrek, also from Hluvukani with eleven working donkeys, made a similar statement about originally getting donkeys to replace cattle as income-generating work animals during drought periods.

Edna, from Disaneng is part of an eight-person household with ten working donkeys. No one in the family uses them for income purposes, but they are utilized for ploughing and

firewood and sand collection. She also mentioned that they use them to transport items for important community functions, especially funerals. The family was unique as they had a borehole on the property, but said if they didn't that, they would use the donkeys for this purpose as well.

Q2: Do you use the donkeys for income-generation, or household use only?

There were three responses identified for this question which were 1) household only, 2) household use and hired use and 3) household use and free community use.

Table 9. Different Contexts of Donkey Use

Function of benefit	Frequency
Household use only	7
Household and hired use	14
Household and free community use	2

It is important to note that there is no function seen where donkeys are used entirely as only hired workers for an owner, they always seem to have a dual function where they both earn income for the family and serve as a laborer for the family as well. Free community use is noted where it was explicitly mentioned, however it likely occurs much more often than indicated through these surveys due to the close-knit communal nature of many of these communities and the intricate role that donkeys play in their day-to-day functions. Additionally, those donkeys which fall under the category, "both," likely perform free-community work functions but were not brought up in the interviews since the discussions largely centered upon their economic contributions for those owners who perform hired work.

Q3: What would happen if you don't have donkeys?

Here, the respondents helped me to see the gravity of what a life without donkeys would feel like, many stating that they "could not survive", "would suffer", or "couldn't eat" if they did not have the donkeys assisting them in their paid or unpaid work.

Sarina, from Bahananoa, has six working donkeys and lives with her six grown children and six grandchildren at home. She does not use the donkeys for income as she receives pension payments and occasionally sells items from the roadside like school shoes,

uniforms, salt, purses and wallets. She mentioned that rather than making income from the donkeys, they save it because without them they would need to hire donkeys from other local families and pay them each time they need water, sand, firewood or cultivation.

Nalus, from Hluvukani uses his seven donkeys for ploughing, collecting water and firewood primarily for hired work. He supports his wife and two children and said that “without donkeys life would be very difficult. I would have to go to a bigger city to look for a job”.

Thato, from an even smaller village near Disaneng, called Mothibistand, is part of a family of five with no current income source. At the time of the interview their four donkeys, which they used for transport and collecting firewood and water, had been missing for quite a while. He wasn't sure what to attribute this to but stated the family had been trying hard to find them. Thato said they had to spend money to hire cars for transportation, or tractors for firewood and water and had not be able to pay for as much food as was necessary for the family.

Q4: Does anyone else use the donkey? Who?

In some areas of Africa and other parts of the world, it is a relatively common practice to lend donkeys for hire to other people for performing their work. This however was never brought up in the responses, even after a few inquiries throughout the process. There were only three responses identified, these were 1) self only, 2) self and family only and 3) self, family and close friends.

Table 10. Determination of Who is Allowed to Use the Donkeys

Permitted	Frequency
Self only	6
Self and family only	12
Self, family and close friends	1
NA	4

While some aspects of life in these villages is clearly very communally oriented, donkeys generally are reserved only for self or family use. This may be attributed to the weight of

value placed upon donkeys for the income and general assistance that they provide to households. An interesting finding from this question was how gendered the use of donkeys appears to be in these areas of South Africa. None of the four women I spoke with used the donkeys themselves, either their husbands or sons did. All male respondents who allowed family usage mentioned this was restricted to their sons, brothers or uncles with the exception of one man who said his sister “sometimes uses them to get water for the home”.

William, from Bahananoa has nineteen donkeys and said that his sons use them on weekends to collect materials around town for locals. He said it “helps them earn some money to buy school snacks and supplies so I don’t have to give it to them from my earnings.” The only respondent who mentioned allowing close friends to use the donkeys was Dikeledia, a security officer at the Diseneng Dam and wife of the local Chief. At the time of our interview her four donkeys were being used by a group of the Chief’s friends to visit a nearby farm and collect water.

Q5: What would happen if your donkeys were sold, stolen or unable to work?

This was the most difficult question to receive an answer for, as many respondents (especially in areas unaffected by the donkey skin trade) were unable to comprehend how a donkey could be stolen from them and remain missing. Due to the sensitive nature of the question, I generally tried once to softly explain the context in which donkeys had gone missing from the skin trade and attempted to re-ask the question. If after this point it was still not understood I recorded their answer and moved on. I find it critical actually, to acknowledge how intensely difficult it was for owners to imagine or describe a scenario in which their donkeys were sold, stolen or unable to work. This displayed to me the relative taboo of donkey theft in these areas, and vital, seemingly irreplaceable role they have.

William from Bahananoa, said “I cannot allow it. Life would collapse.” The most poignant answers I received from this question came from those who actually had lost donkeys, most likely to the skin trade. Beki from Hluvukani said he had fifteen before six were stolen in 2016, around the time when he said Chinese men had come through the area offering “low prices” to buy donkeys. After the six were stolen he said he had no energy to work for a long time because he was so worried and tired from looking for

them. Another respondent, Neo, in Disaneng had six donkeys stolen in 2015, also suspected from the donkey skin trade as it had been a highly targeted area at the time. He stated similarly to Beki, that those which were taken were his best six and working was more difficult until his others were trained and stronger. Mant, from the same area had five stolen in 2014 and acknowledged how difficult it was because his family depends on them for a wide array of daily tasks.

Q6: Would you use something else to replace your donkey if it was gone?

This question followed Q5, so there was a lower response rate due to the difficulty of comprehending or imagining the scenario in which donkeys might have to be fully replaced. However, I did receive four possible options as replacement which were 1) get more donkeys 2) hire someone else with donkeys 3) hire a tractor or car, and 4) perform activities entirely by hand.

Table 11. Possible Donkey Replacement Options

Replacement Method	Frequency
Get more donkeys	5
Hire someone else with donkeys	5
Hire tractor or car	5
Perform activities entirely by hand	1
NA	6

Nearly twice as many respondents said they would remain in use of donkeys either by buying more or hiring others with them to do necessary tasks. This to me, was significant that owners felt so attached to using donkeys that they would not consider other alternatives. This is most likely attributable to infrastructural, financial or access barriers to mechanized technology.

Reneas, a local from Hluvukani had eight donkeys prior to their poisoning by a neighbor who had grown frustrated with them drinking from his private water supply when allowed to roam freely. While he had not previously used them for income, his family is feeling a financial strain from their absence. He and his wife, both in their 60's, now have to plough their subsistence crops by hand because they cannot afford to hire someone for that task and hire a car twice a month to collect firewood and water which costs 500 South African

Rand (SAR) each time. Others mentioned they would expect to pay 50 SAR a day to hire others to get firewood and water, or 600-700 SAR a month to hire a tractor twice to collect firewood and water.

Q7: What advantages do you have because of your donkey? Disadvantages?

The responses to these questions were some of the most vivid, and most diverse of the interview process. Therefore, I have created a table below which outlines ten responses to capture the diversity and range of benefits and difficulties associated with donkey ownership in Bahananoa, Hluvukani and Disaneng. I have included individual demographics here with detailed information where possible to develop a clearer picture for readers of the dynamic nature of donkey owners and the relationships they have with their animals. Some answers contain direct quotes as translated from my interview facilitators, or summarizations of the translated conversation.

Table 12. Stated Advantages and Disadvantages to Donkey Ownership

Demographics	Advantages	Disadvantages
Name: Jonas Location: Bahananoa Age: 35 Occupation: Donkeys Household: 7 people, main provider Education: Grade 5 Donkeys: 7	“I’m able to stay in the village because of donkeys instead of going to the city.”	“If I didn’t have a donkey, I would do the work going to the mountains and collecting firewood in the day that people want.”
Name: Beki Location: Hluvukani Age: 29 Occupation: Donkeys only Household: 4 people, lives with brother and provides for two sons Education: Graduated high school Donkeys: 9	“I have food, I can send my two sons to school. I’m never broke, even in January!”	"Lots of people coming to steal the donkeys or people ask for my work and build up a credit, then they don’t pay their credit, or I have a hard time getting it from them.”
Name: Samuel Location: Hluvukani Age: 33 Occupation: Donkeys only Household: 8 people, main earner Education: High school graduate	“Because of the donkeys I’m not broke, the money goes to personal use and for the family.”	There are no disadvantages he could think of for the donkeys.

Donkeys: 14		
Name: Batshegy Location: Disaneng Age: 21 Occupation: Unemployed Household: 5 people Education: Grade 10 Donkeys: 5	Able to reach water that's far away, using the donkeys for transport and especially to get to clinics and other appointments in the village or nearby towns.	"Seeing them with wounds, people hurt them when they wander loosely, sometimes they get sick and you have to pay to get them help."
Name: Dikeledia Location: Disaneng Age: 40 Occupation: Security at Disaneng Dam Household: 5 people Education: High school graduate Donkeys: 4	They help with all household needs. The biggest is as a means of transport family members from one place to another.	"The fact that people can steal them."
Name: Edwin Location: Disaneng Age: 44 Occupation: Odd jobs around village Household: 4 people, one other working also Education: Grade 4 Donkeys: 20	"Really benefit because we can equip our home with everything we need because of the help of the donkeys."	"Because they roam free sometimes someone else can catch them for work and then release them later."
Name: Group member B Location: Disaneng Age: NA Occupation: Unemployed Household: NA Education: NA Donkeys: 4	Can go to the clinic easily and take family and friends too if they need it, can visit the chief.	He can't get the water or go to the clinic or get firewood very early in the day because the donkeys go and wander so that can be very difficult, no money to hire a car so it makes him late for appointments sometimes.
Name: Donald Location: Disaneng Age: 19 Occupation: Student Household: 14 people, father works as village pastor Education: Enrolled in grade 10 Donkeys: 5	"Without the donkey we couldn't go to the clinic, had just used the donkeys today actually to visit the doctor."	Finding them the next morning after someone else has taken them without asking to do work or someone has hurt them.
Name: Thato Location: Disaneng Age: 23 Occupation: Occasionally selling items at events Household: 5 people, none working Education: Level 2 engineering graduate	Advantage is that you save money when you have them because you don't have to hire someone else to do the tasks.	Disadvantage is that they go missing and can be really hard to find.

Donkeys: 4		
Name: Ruth Location: Disaneng Age: 62 Occupation: Not working, husband and daughter provide income Household: 3 people Education: Grade 4 Donkeys: 5	Often used as a substitute for a tractor if it breaks down, and they help collect firewood and serve as a means of transport.	When people overwork the donkeys and don't let them rest – “without the donkeys people can't get their objectives met.”
Name: Neo Location: Disaneng Age: 26 Occupation: Donkeys only Household: 3 people, main earner Education: Grade 10 Donkeys: 20	"Uplifts the community by collecting water and firewood for them, when they buy building supplies, we can transport it for them also, so we help them a lot."	When they get injured by other people in the community it feels like people don't like him personally; when they wander into other properties and cause trouble or when they are stolen.

3.2.2 Group Interview Responses from Bahananoa, Hluvukani and Diseneng

Group interviews in the three locations were beneficial to access different perspectives, utilize group discussions to obtain greater detail or nuanced perspectives, and allow for a more conversational type of dialogue between participants, the Interview Facilitators and myself. Below, I've outlined questions and answers from each group interview related to Sen's capability approach. Responses are a combination of direct quotes and summarizations in list form.

Bahananoa Group Interview

Date: 16/02/2019

Interview Facilitator: Silas

After conducting two in-person interviews in the village, Silas and I facilitated an interview with twelve donkey owners. Some questions were selected from the individual interview form due to their applicability and relevance to the group interview, while others were created specifically to capitalize upon the group communication format.

Q1: Primary reason(s) for donkey ownership?

- Donkeys get money to feed children and cultivate at home for sustenance farming both personal and paid
- Taking donkey to collect meat from cattle that may die on the mountain which is then distributed to the community
- Transportation of persons and goods; taking material from old fences as they fall or break in the mountains

Q2: What would happen if you don't have donkeys?

- "Extreme suffering"
- "No food for the children"
- "Cannot live without the donkeys"
- Loss of livelihood since donkey work serves as primary means of income for most of the group

Q3: What would you do for work if you didn't have donkeys?

The group as a whole could not provide any ideas on what alternative options, they would have for work. Silas summarized this dilemma by saying, "No jobs if they don't have donkeys, just imagine, how vital is the donkey?"

Q4: Would you feel forced to go to the cities for work if you had no donkeys?

After a while of discussing this topic together, Silas informed me that, "Many have tried going to the city but also could not find work there and didn't like the life, so they returned to the village. They said they would have no work at all without the donkeys. You see these people, they are older now, they've been in the cities. They're coming back because there's no job there. They're coming back to do the work with the donkeys and be with their families. There is no need for them to go now."

Q5: What advantages do you have because of your donkey? Disadvantages?

- One man said he built a whole house for his family because of the money from the donkeys, others nodded and murmured in agreement
- Affording household purchases such a refrigerators and beds
- Putting money earned from donkeys into buying sheep, goats, wheat and other harvestable stocks

- Another said he cultivated food with the donkeys at home at home and sold it, then from that money was able to buy a cart to get water and firewood with his donkeys
- “Basically, I can provide for my family from the earnings. I was able to get more donkeys from money made with the originals so they could assist the children in their chores at home.”

Q6: Would you sell your donkey (why/why not)? To who?

No one in the group mentioned being willing to sell their donkey, and the group agreed that they would not sell donkeys to strangers since they fear they would take that donkey far away, thus losing its benefit to the community as a whole. Silus summarized the discussion by saying, “They said if a stranger came and said he’s looking for the donkeys they cannot be able to sell the donkeys. They said, if they can buy a donkey here, (the strangers), and then a neighbor comes and needs the donkey the owner will say ‘no’, and that would be a problem!”

Q7: What do you think is the community perception of donkeys?

- “Without donkeys people cannot survive here”
- “People see that they facilitate economic growth”
- “Those without donkeys don’t always understand the benefit of the donkeys in the community”
- “They’re seen as pests who get in the road and in the yard”
- They are sometimes killed or hurt by non-owners in the community

Hluvukani Group Interview

Date: 18/01/2019

Interview Facilitator: interview was completed in English with introductions by Dr. Sonntag

Prior to conducting individual interviews in Hluvukani and smaller surrounding villages, I facilitated an on-the-spot group interview with six of Dr. Sonntag’s previous research participants (including Philemon) to assess how non-donkey owning community

members perceived them in the community. This provided a unique insight as the vast majority of my in-person interviews focused only on owners.

Q1: Are donkeys used in this community? How much? For what?

The group agreed that donkey ownership in the surrounding area was primarily to collect firewood and water and plough in the garden. They brought up the topic of consuming donkey meat and one participant said, “We don’t eat donkeys for the most part, only a few in the community like it, no one else eats it. Donkeys are just not considered as something to eat – certain tribes however really eat them a lot but it’s very rare.” They mentioned that within the community the donkeys are sometimes hired for collecting, and within the group they or their families had also hired for donkeys to collect things like firewood and water.

Q2: How do people think about donkeys here in the village?

- “They like that they are very cheap”
- There is some concern about their capacity to spread foot/mouth disease (Note: this is miseducation as donkeys are not carriers of the disease)
- “They get annoyed that they go around and eat plants from people’s yards”
- “People like to own them because they hardly have to spend money on them”

Q3: Why might people use the donkeys around here instead of cattle?

- “They are stronger, more agile and don’t get sick as much”
- “The cattle are in more demand as a food source, working them makes them thinner”

Q4: Why hire someone with donkeys instead of a car for collecting firewood or water?

- “Donkeys are much cheaper”
- About 100-150 SAR to hire someone with a donkey to fetch water or firewood but to hire a car for the same job would be about 190-200 SAR
- For ploughing the price is about 250 SAR for a plot with a donkey versus using a tractor which would be about 400 SAR
- Seems like half the residents hire donkeys and the other half hire cars or tractors

Disaneng Group Interview

Date: 29/01/2019

Interview Facilitator: Matome

Initially, Matome had tried to arrange for a large group meeting of owners he previously worked with through his outreach work at the NSPCA. This was difficult to put together ahead of time however, and participants did not arrive. We did come upon a group of men resting in the shade of a tree with a few donkeys hitched to a cart nearby. When discussing whether they would like to participate we found out that two men were donkey owners, and two men were not. I felt that this would be a useful dynamic to assess the relationships formed between donkey owners and non-donkey owners and ask questions about what function donkeys have in the area for both sets of participants.

Q1: In what ways do you use donkeys?

One of the men has no donkeys but uses them by hire to get firewood and water, he mentioned that he only pays a “thank you” payment to friends who he hires, generally 150-200 SAR but that is not a requirement. The frequency is dependent because he hires once his water tank is empty which can happen up to four times a month as it is also shared with livestock. Sometimes he can also hire a truck for 200 SAR to replace donkey work, but the payment is mandatory. The other man without donkeys had a car but still hires donkeys to get places to save on fuel costs. He said he pays sometimes and not others and the price is dependent on distance.

Q2: What do people think about the donkeys?

- “They think they are very important; they help in all ways”
- “They are very vital; they have a major role in transport in the community plus ploughing”
- The group mentioned their role in community events and that they are especially important for funeral processes as they transport items, food, and people to the events
- “Very important for helping to build homes in the community since the gathering of materials, including sand and water is done by donkeys”

- “Nice to have a surplus of donkeys so you can loan to friends and family if they need them”

Q3: Do the people who do not have donkeys also think they are important?

- “Yes, everyone in the village would like to have donkeys because they are so helpful”

Q4: Why do some people have them, and others don't?

- “There is a challenge with finance, especially to buy the cart that you need with donkeys”
- I asked more about this as the cost of a cart had not come up in previous interviews. The men agreed that for a small cart it can be around 3,000 SAR (2 donkeys hitched) and for a large one maybe 12,000 SAR (4 or more donkeys hitched)

3.3 Cost-benefit Analysis (CBA) of Donkey Ownership versus the Donkey Skin Trade in South Africa

To provide a balanced analysis and compliment findings from Sen's capability approach, I applied a set of questions in the in-person interviews which addressed quantitative values related to the costs and benefits of donkey ownership. Interpretation of responses from the questions above may be considered relatively subjective, however, hard data obtained from the interviews in the CBA below provides a more objective view of the economic value of donkeys as domestic laborers in South Africa. I will evaluate four CBA scenarios in the section below: 1) retaining donkeys as domestic laborers in South Africa, 2) selling donkeys into the trade as foreign export product 3) donkeys being stolen for foreign export and 4) a well-regulated trade between South Africa and China. Where providing responses to prices I maintain the use of reporting in South African Rand (SAR), which as of April 2018 are valued 1 SAR to .071 USD, with the conversion of 1,000 SAR to USD totaling around USD \$71. Additionally, due to the constraints of limited data on average market prices, costs and income earned from donkey ownership I will be utilizing my own dataset figures as references, but must emphasize this study should not be considered fully representative of South Africa as a whole, and interpreted

with caution for the geographic locations of study as the sample size was not able to be fully representative. The results have however been corroborated with officials at the NSPCA who work with donkey owners throughout South Africa, and they feel that the results are reasonable, and reflective of their general observations.

3.3.1 Scenario One: CBA of Retaining Donkeys as Domestic Laborers in South Africa

Due to the informal and varied nature of donkey-related work and rough calculation of numbers by participants, the responses to cost and income-related questions should be interpreted as general estimates rather than exact figures. Additionally, as shown in the questions and answers from the previous section, some owners use donkeys exclusively as a source of income, others in tandem with another source, and some retained them only for unpaid household work. Where possible, I will divide responses according to whether donkeys were used as an income source (either fully or partially) versus those used for unpaid household work. Examples of how I derived calculations for each question from verbal responses and estimations will also be provided where applicable.

Q8: Average cost per year/month/week/day for donkey?

Sixteen responses of the twenty-two in-person interviews were used for this question as four did not answer, one had an answer in which the costs for donkeys were combined with that of her eight cattle, and another was a strong outlier. The figures in Table 13 represent measured costs stated by owners, independent of number of donkeys.

Table 13. Yearly Cost of Donkey Ownership

Measure	Result
Mean	1,192 SAR
Median	1, 100 SAR
Mode	500 SAR
Range	0 – 7,200 SAR

In asking this question, I allowed respondents to reply to whichever measure (year, month, week, or day) they felt most confident in estimating. I have not separated groups based on whether they utilize donkeys for income or not, because the costs are not dependent upon the purpose of their use. Below, I have provided three examples of how

I analyzed their responses and formulated a yearly total from their replies when a yearly estimate was not provided.

Table 14. Example of Yearly Cost Calculations

Name	Cost Explanation	Calculation
Samuel	Spray for wounds on the donkeys that occur mostly during ploughing season costs 120R and he buys about 4 bottles of it each year	$120 \text{ SAR} \times 4 \text{ (bottles)} = 480 \text{ SAR}$
Edna	Salt lick mixture (200 SAR every 3 months) and leftovers from sorghum beer (free) are fed to them	$12 \text{ (months)} / 3 \text{ (purchase of salt licks per year)} = 4 \text{ total purchases}$ $200 \text{ SAR} \times 4 \text{ (salt lick mix)} = 800 \text{ SAR}$
Donald	Buys grass (120 SAR two times a month) and salt lick (120 SAR once per month)	$120 \text{ SAR} \times 2 \text{ (grass)} = 240 \text{ SAR}$ $240 \text{ (grass)} + 120 \text{ (salt lick)} = 360 \text{ SAR}$ $360 \text{ SAR (grass and salt per month)} \times 12 \text{ (months)} = 4,320 \text{ SAR}$

The average cost per donkey based on the sum of 152 donkeys (working and non-working) between the sixteen respondents and total reported costs of 31,880 SAR is roughly 210 SAR (USD \$15) per year.

Q9: Income earned from donkey (per year, month, week, day)?

The nature of this question was similar to the last, in that respondents had a relatively difficult time providing exact figures due to the fluctuating, highly varied income they receive from donkey-related work. For this question, responses were only recorded from participants who use their donkeys to obtain some amount of income. Fourteen participants use their donkeys for income; however, I was only able to analyze ten responses as one estimate was a strong outlier, two stated the income was too sparse and unreliable to provide an estimate, and one did not answer.

Table 15. Yearly Income Earned from Donkeys

Measure	Result
Mean	12,092 SAR
Median	10,600 SAR
Mode	12,000 SAR
Range	4,800 – 34,320 SAR

As with Q8, I allowed respondents to reply to whichever measure (year, month, week, or day) they felt most confident in estimating. Below, I have provided three examples of how I analyzed their responses and formulated a yearly total from their replies when a yearly estimate was not provided.

Table 16. Example of Yearly Income Calculations

Name	Income Explanation	Calculation
Sampson	100 SAR each week from selling firewood collected in the bush	$100 \text{ SAR} \times 52 \text{ (weeks)} = 5,200 \text{ SAR}$
Shadrek	Ploughing one hectare is 400 SAR. "If I am really working hard and ploughing a lot, I can make 2,800 SAR in one week"	$2,800 \text{ SAR} \times 4 \text{ (months of ploughing season)} = 11,200 \text{ SAR}$
Ruth (Husband works with donkeys in nearby mining town)	Water =60 SAR usually receives an order once or twice a week; Firewood = 250 SAR; Sand = 350 SAR almost always received a paid order for sand or firewood every week, often a few	$60 \text{ SAR (water)} \times 52 \text{ (weeks)} = 3,120 \text{ SAR}$ $250 \text{ SAR (firewood)} \times 52 \text{ (weeks)} = 13,000 \text{ SAR}$ $350 \text{ SAR (sand)} \times 52 \text{ (weeks)} = 18,200 \text{ SAR}$ $3,120 \text{ SAR} + 13,000 \text{ SAR} + 18,200 \text{ SAR} = 34,320 \text{ SAR}$

The average income earned per donkey based on the sum of 74 *working* donkeys between the ten respondents and total reported income of 120,920 SAR is roughly 1,634 SAR (USD \$114) per year.

It is possible from this data to summarize the economic costs and benefits of owning donkeys for those who utilize them for income purposes. However, for owners who do not use donkeys as an income source a combined analysis of benefits by utilizing Sen's capability approach, paired with comparing the relative costs of donkey ownership must be applied. As a majority of the twenty-two respondents mentioned utilizing donkeys to obtain some form of income and for the purposes of simplicity, I will contrast only the economic costs and benefits in the table below to conclude this section.

Table 17. Cost-Benefit Analysis of Individual Donkeys for Donkey-Income-Earning Owners Per Year

Mean cost per donkey	210 SAR
Mean income per donkey	1,634 SAR
Result	Benefit of 1,424 SAR

The cost-benefit analysis shows that on average, individual working donkeys benefit donkey-income-earning owners around 1,424 SAR (USD \$99) each year. The average number of working donkeys for owners who use them as an income source and were included in the benefit analysis was seven, thus, on average owners may experience a benefit of 9,968 SAR (USD \$695) from their herd each year.

3.3.2 *Scenario Two: CBA for Owners Who Sell Versus CBA for Buyers and Chinese Retailers*

The two questions listed below (Q10 & Q11) were asked in order to understand the owners' willingness to sell and collect market prices for both the sale and purchase of donkeys. I have utilized these answers to estimate what level of profit South African donkey owners versus buyers and Chinese retailers could expect from engaging in the donkey skin trade.

Q10: Would you sell your donkey (why/why not)? For how much?

This question generally elicited three separate responses, first, a yes or no answer to the initial question, followed by an explanation which helped provide insight to the value of donkeys for their owners, and finally an estimate of what owners would expect to receive for a fair sale price regardless of whether they answered "yes" or "no" to selling. The tables and text below display responses to the various elements of this question.

Table 18. Owners' Willingness to Sell

Response	Frequency
Yes, would sell	7
No, would not sell	13
NA	2

Most often when participants answered that they would not sell their donkeys it was for two reasons, 1) they did not have an "excess" for selling, or 2) they would not consider selling regardless of the number they have because they always need them.

William, from Bahananoa has 19 donkeys with ten who work with him to collect water, firewood and sand as well as transport building materials. He said he did sell two of his male donkeys in the past year to a local, but mostly because they were “extras” and “very naughty”. He would not consider selling any others from his current herd. Nalus, from Hluvukani has seven donkeys, all of which work and help him in ploughing and collecting water and firewood for paid and household use. He said that if he had many donkeys, he would sell some, but not any from the current seven that he has. He mentioned that he wants more donkeys than he has currently because they are “looking after him.”

Edwin, from Disaneng has twenty donkeys with only three working who help him collect water and firewood and also serve as transportation. The other seventeen are comprised of mothers and foals. When asked if he would consider selling them, he said, “No, I love them, and they help me. The females give birth to new ones for free, there’s no limits to how many donkeys I want to have.” He did mention that the only scenario where he would accept a transaction is for trade of either a “few goats for one donkey, or four donkeys for one cow.” James, also from Disaneng has five donkeys, all of whom work to help him collect firewood and water and receive “just enough to buy some cold drinks and snacks from the shops”. He said he would only consider selling donkeys if he had “enough”; when asked what “enough” donkeys would be, he said twenty or more.

Table 19. Expected Price for Selling a Donkey

Measure	Result
Mean	900 SAR
Median	625 SAR
Mode	600 SAR
Range	500 – 2,500 SAR

Price variation from one village to another was one of the primary differences in responses. Bahananoa had the lowest estimations of what locals deemed an appropriate market price, ranging from 500-600 SAR. The group interview with twelve donkey owners confirmed this yet stated the upper bound for a price could be 800 SAR for a “very strong one”. The estimated prices in Hluvukani rose to the highest range between 1,000-2,500 SAR and dropped slightly again in Disaneng to a range between 550 – 1,500 SAR.

Q11: How much would you expect to spend to replace a donkey if you had to?

Price estimates for this question were relatively higher than to the quoted estimates for sales, yet similar patterns in price-range variations between locations closely mirrors those from quoted selling prices as well (Bahananoa the lowest, Hluvukani the highest, and Disaneng with median prices).

Table 20. Expected Price for Buying a Donkey

Measure	Result
Mean	1,065 SAR
Median	950 SAR
Mode	1,000 SAR
Range	550 – 2,000

To derive an average market price for the areas of South Africa where I interviewed and have previously been targeted by the donkey skin trade, I utilized the average expected selling and buying price from Tables 19 and 20. This equates to roughly 980 SAR, however it seems that sellers and buyers alike prefer to deal with rounded numbers (potentially due to the cash-economy system of rural transactions), thus I have rounded the figure up to 1,000 SAR.

When speaking with participants, I asked them an open-ended question to assess their knowledge and thoughts about the donkey skin trade. Their answers enlightened me to the general process of sales inquiry by middlemen or Chinese buyers and some of the issues faced in this process for both owners and the prospective buyers. I have outlined some of the most poignant responses to provide readers with a clearer idea of what is involved leading up to the sale of donkeys, followed by a CBA for both the owners and prospective buyers.

Q12: Do you know about the donkey skin trade? What do you think of it?

Only two respondents out of the twenty-two interviewed had never heard of the trade, however the capacity in which they knew about it revolved around the theft of donkeys by middlemen and Chinese, and that they were interested in the skins. Only a few indicated that they understood the skins would be used for medicine, and none knew what ejiao is, nor its market value, or why China had targeted the South African donkey market.

Jonas, from Bahananoa, said that in 2017 a group of people came to the area behind their village, in the mountains and bought around forty “extra” donkeys who were not working for their owners. The prices matched the local market rate of between 500-600 SAR. Shadrek, from Hluvukani was contacted by Chinese buyers in 2016 who offered him 500 SAR for his donkeys but declined because the price was too low for what he expected and there was a communication difficulty between he and the buyers.

If Chinese buyers are willing to accept local rates which range between 500 – 2,000 SAR with an average of 1,000 SAR and can locate owners who feel they have an excess of donkeys the two parties are likely to agree upon a consensual sale. If an owner, who receives income by working with their donkey was to sell it for 1,000 SAR, they gain an immediate profit. What they lose however, is the potential labor and net-income made from the animal, roughly 1,424 SAR each year over an average working lifespan of ten to twenty years dependent on working conditions and welfare (Pritchard, 2010).

Countering the argument that if owners only agree to sell excess donkeys, they will not miss the net-income, is the fact that other locals who otherwise would have purchased the excess donkey and capitalized on its earning and labor potential are devoid of the possibility. Rather than utilizing donkeys as an inexpensive and well-suited income-generating tool in rural South African communities by selling excess animals through local channels, the decision to receive equal amount of immediate profit (1,000 SAR) for utilizing the donkey as a foreign export product causes a ripple effect of loss throughout the area. Not only is the earning potential of a donkey eliminated when sold into the skin trade, but prices in local markets rise due to increased demand and resulting shortage. While prices since 2014 for donkeys have risen in the country partly due to economic enhancements, multiple interview participants attributed the steep price hike to the donkey skin trade, a phenomenon witnessed in other African countries targeted by the trade as well. Dikeledia, from Disaneng said, “We used to buy them [donkeys] at 300 SAR, but now it is around 1,500 SAR. The price is higher because of the skin trade and those who eat them, it makes their value rise.” Her statement closely mirrors the price estimates I received for 2014 from the NSPCA who estimated that prior to the emergence of the skin trade, market prices for donkeys ranged from 150 -300 SAR throughout South Africa. For individuals in rural communities who are unable to participate in

modernization and technological advancements due to economic constraints, donkeys have historically been a low-cost and effective alternative. However, the donkey skin trade threatens their capacity to fill such an important role. An ideal solution between owners and those interested in donkey skins is to limit sales exclusively to old or sick animals, an option which several interview participants mentioned as well. This will be further explored in scenario three, where a regulated approach is considered.

Due to the illicit nature of the trade, sparse data is available regarding the costs involved for Chinese retailers, and even less for those involved in facilitating purchases and transporting hides. What is relatively clear however, are the immense profits involved for producers of ejiao based on data for product pricing, total sales and profit reports. Like the reported figures in the primary data above, the figures from secondary data should be assessed as relatively broad estimates. Steadily increasing demand paired with a growing global shortage of donkeys has likely driven current market prices higher than those quoted here, most of which are obtained from reports which utilize data from 2016 and 2017. Where possible, the most recent figures have been updated after a discussion with Simon Pope, Director of Campaigns & Communications at the Donkey Sanctuary UK whose team is involved in a global response effort to the trade.

The two methods of freight shipping donkey skins from South Africa to China are by ship or plane. Both methods have been identified in South Africa which boasts impressive export locations such as the Port of Durban, Port of Port Elizabeth and Port of Cape Town, and the O.R. Tambo International airport in Johannesburg and Cape Town International Airport for cargo exiting by plane. No data is currently available as to whether shipping by sea or plane is more heavily utilized, however both options are relatively inexpensive in comparison to potential profits.

Based on figures from a 2017 National Geographic expose, *Rush for Donkey Skins in China Draws Wildlife Traffickers*, I determined that a standard forty-foot-long shipping container will hold roughly 2,700 donkey skins (de Greef, 2017). Figures from seafreightcalculator.com estimate costs for this size of container to be USD \$3,215 from the Port of Durban to China. A 2018 New York Times essay, *To Sate China's Demand, African Donkeys Are Stolen and Skinned*, estimates price per hide to have reached at least USD \$500 (Nuwer, 2018). Utilizing these figures and market price estimates from my

primary data I have established a rough CBA for the involved agents, assuming no other likely costs such as lodging, transportation, payment of locals for information, and flights between the countries. Additionally, prices for the slaughter and skinning of donkeys (assuming it is done in a formal slaughterhouse rather than by hand in unregulated circumstances), as well as taxes and levies are not available for analysis.

Assuming that buyers obtain 2,700 live donkeys at the average South African market price of 1,000 SAR, the cost would equal 2.7 million SAR (roughly USD \$720,000). Additionally, they face an estimated shipping cost of USD \$3,200, thus a total cost of around USD \$723,200. With the average purchase of skins in China between USD \$400 - \$500 the purchase price may be upwards of USD \$1 million. Thus, a profit of around USD \$276,800 could be gained from the sale of skins filling a standard sized shipping container, and profit per donkey of USD \$103. Reflecting upon this figure, in-country costs for obtaining donkeys, and those faced for taxes or levies are minimal considerations.

Data for production costs is also unavailable, thus I will reiterate the profitability of ejiao which was discussed earlier in the literature review. The Humane Society International's (2018) report, *Ejiao*, estimated that around 14,000 tons (28,000,000 pounds) of ejiao were produced in 2017, with 2018 price per pound estimates for ejiao between USD \$400-\$600 (Nuwer, 2018). Using these figures, net profitability for the ejiao industry could easily top USD \$11 billion. Considering that one donkey hide is estimated to produce around 2.2 pounds of ejiao once processed (Gardner, 2017), the net benefit that Chinese retailers stand to gain from processing an individual donkey is between USD \$800-\$1,200.

The table below concludes this section by summarizing the potential profit gains for each step in the donkey skin trade process, assuming that owners and buyers agree to the average market price of 1,000 SAR and no losses are incurred for the owner as they have only sold an excess, rather than working animal (in this case, facing a potential loss of roughly 424 SAR for the first year and 1,424 each year afterwards that the animal could have worked).

Table 21. Profit Potential of Individual Donkey Sold into the Skin Trade for Owners, Buyers and Retailers

Position	Profit	Percent increase from what owners receive
Donkey owners	1,000 SAR/USD \$71	
Buyers	USD \$103	45%
Retailers	USD \$ 800 – \$1,200	1,027-1,590%

3.3.3 Scenario Three: CBA of Donkeys Stolen for the Skin Trade Versus CBA of Buyers and Retailers

Respondents mentioned that often after prospective buyers visited the village and spoke with owners who declined offers because of low prices or unwillingness to sell, thefts occurred. As stated earlier in the literature review, some South Africans who were interviewed about the donkey skin trade reported feeling forced into their decision to sell because they realized they would face theft, and no profit otherwise. Ruth, from Disaneng said in the period between 2014-2015 was the worst she remembers, and that “Many Chinese people were driving around and asking about buying donkeys. Then they started going missing.” Donald, from the same area said in the period between 2016-2017 he found “a lot of donkeys in fields without their skins”. When speaking with Dikeledia, wife of Disaneng’s Chief, she said the community was targeted so extensively for donkey theft that they placed broadcasts on local radio stations to build awareness and began rotating community patrols for day and night shifts to prevent theft. Edna and her family, from Disaneng, relies on the income her husband obtains from donkeys and felt forced to hire herders to guard the donkeys at night in 2016.

I spoke with three participants about their experience having donkeys stolen and was careful to respect their difficult memories by asking limited questions but appreciate the answers they provided as it helped me to better understand the impacts of theft. Beki, from Hluvukani had 6 of his donkeys stolen at the height of theft in the area in 2016. When asked how the theft affected him, he said, “There are a lot of disadvantages for us because it takes the work. I was wanting to sell one at the time of the theft for 1,500 SAR. During that time, I can’t even work, I was so worried. I didn’t even have energy; I was so worried for a long time. I didn’t have the good ones, the ones they took were the ones

with the power.” If he would have sold those 6 donkeys within the area where the market price is between 1,000-2,500 SAR, he would have made between 6,000 - 15,000 SAR. Not only did the theft negate the potential earnings Beki could have received from their sale, but also the potential income from six reportedly well-trained, strong and working donkeys – an average combined net potential of 8,544 SAR per year.

Mant, from Disaneng had five of his donkeys stolen in 2014. He stated his family as a whole faced difficulty for a long while after the theft because the donkeys had served as their main source of transportation. He was forced to use other sources to get firewood and water instead of using own donkeys for free, which cost about 50R a day. Neo, from the same area, had 6 of his “best” donkeys stolen in 2015. He said he suspects a community member took them and sold them to the Chinese but felt he could not “do anything about it afterwards because it was just a suspicion.” He mentions the time afterwards as being a very unhappy one because the donkeys are his only source of income, and at the time he would have sold five of the six that were stolen for 500 SAR each.

Two themes which arose in my interviews with Beki, Mant and Neo were highlighted in my earlier informal meeting with NSPCA officers Morgane James and Grace de Lange. First, they mentioned finding that the donkeys stolen most often are actually those of greatest value, and who are consistently in work. Due to the free-ranging style of herd management traditionally practiced in South Africa by donkey owners, the donkeys must be caught by thieves. Those which are the best trained and most docile are generally much easier for thieves to catch and handle and tend to remain closer to the owners’ domain. Additionally, they mentioned the strong tension within communities that has developed as result of the trade. Community members are targeted by middlemen or Chinese buyers who utilize their local knowledge and pay them to obtain the animals. Especially concerning are reports of children in villages who are solicited to take the animals and in return receive items like food or candy by traders.

Locals from Disaneng commented on this as well. Samuel said he “feels like for something like that to happen [donkey theft] there would need to be some kind of a local connection. Maybe if they can steal the donkeys, it would only be people from around here who have to help them steal because if you’re not from around here you don’t even

know which family does or doesn't have donkeys." Ruth, when asked about her thoughts on the donkey skin trade said "It is not good. The Chinese use young people to go steal from donkey owners and get paid in return." In replying to the question of whether he knew about the donkey skin trade said yes, he "heard that people were stealing the donkeys and selling them to China, and especially asking young people to steal them." His thoughts on the trade were that, "It's not right because they were corrupting the community youth to steal."

Quite clearly, whatever gains were potentially possible for South African donkey owners in the case of a consensually agreed upon sale (estimated at 1,000 SAR, assuming an excess, rather than working donkey was sold) are not received. Instead, owners lose their animals' potential sale price of 1,000 SAR as well as all potential future profit, estimated around 1,424 SAR. In the case that they must replace the animal, they will face the additional replacement cost of around 1,000 SAR. Areas which are heavily targeted and experience a wave of theft often experience a steep price hike due to supply shortages, and prices may reach upwards of 2,000-3,000 SAR. For those who choose not to replace their animals, and instead hire other donkeys (assuming some are left as working animals in the community) or tractors or cars to perform necessary tasks face these additional costs as well each day.

Buyers, on the other hand earn a much larger net profit as the consideration of purchasing raw materials (donkeys) is negated through theft. The table below reproduces the scenario in which 2,700 hides are obtained and shipped to China yet reconsiders the CBA for owners and buyers. Calculations considered for owners assume that a working donkey, rather than excess, is stolen as is commonly reported.

Table 22. Loss and Profit Potential of Individual Donkeys Stolen into the Skin Trade for Owners, Buyers and Retailers

Position	Profit	Percent increase from what owners receive
Donkey owners	Negative 1,000 SAR (market value) + 1,424 SAR (per year for span of potential earnings during working life) + 1,000 SAR (Replacement cost for another donkey) + X (widely varying costs associated with either having to hire others with donkeys or tractors/cars to perform tasks)	
Buyers	USD \$369	

Retailers	USD \$ 800 – \$1,200
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3.3.4 Scenario Four: CBA of Regulated Donkey Skin Trade Activities for South Africa Versus China

To conclude the CBA scenarios, I will examine two sub-scenarios in which 1) the current restrictions on exported hides are respected and regulated and 2) South Africa developed commercial farming operations, similarly to what has been done in Kenya. While not intended to be a full-scale analysis of all aspects involved in either scenario, these scenarios are utilized to explore the possibilities and challenges associated with embracing the donkey skin trade in South Africa through a well-regulated process. Achieving a state of greater sustainability, less damage to donkey owners, and adding greater total benefit for South Africa is presumably a realistic ambition for China regarding the donkey skin trade. Maintaining positive trade relations with South Africa, as China's primary African partner is fundamental to ensuring China retains access to South, and Southern Africa's wealth of natural resources. As described in the literature review, China's rapidly expanding economy and growing consumer wealth requires its constant sourcing of raw materials. While the impacts of China on larger industries such as textiles and mining in South Africa are significantly more likely to influence political agreements, the South African government does function as a democracy. Thus, politicians are accountable for their political alliances and backing of trade agreements. Rural voters, many of whom are aware of the historically detrimental impacts of the donkey skin trade and depend on donkeys in direct or indirect form may be compelled by a comprehensive and protective approach to this issue, and especially one which has potential benefits rather than simply negates losses.

3.3.4.1 Sub-scenario One: Meeting Current Export Quota

South Africa regulates the export of donkey hides to a national total of 10,500 skins each year. Of these, they must be slaughtered and skinned at a slaughterhouse which is licensed to process equines. Currently, only one such operation is functioning, with a license to process twenty equines (horses, mules, donkeys) a day. To meet their national yearly export quota and comply with slaughter requirements is not currently possible, as it would take 525 days to process 10,500 skins at the rate of twenty per day.

Two other slaughterhouses in South Africa were previously licensed for processing equines but were closed due to regulatory violations. If a total of three equine-licensed slaughterhouses were operating within South Africa, each with a daily maximum of twenty equines (assuming only donkeys are processed, due to an extremely low national demand for horse meat) the country could meet its export quota, with each processing 3,500 donkeys over 175 days in a year. Ensuring proper supply of licensed and regulated operations for those interested in engaging in the trade could be a crucial step in offsetting illegal activity, as legal options must be available and accessible. Prioritizing the employment of locals to fill slaughterhouse positions enabled by enforcement of regulations could be a positively associated benefit.

Regulations for the sale of donkeys in the rural areas I visited are primarily implemented by Chiefs, whom owners must ask for permission prior to engaging in a sale. Whether this is consistently practiced is difficult to know. Slaughterhouses are supposed to require a formal bill of sale to ensure animals are not stolen, however the informal nature of some rural sales negates this practice. Standards which are implemented for the sale and processing of cattle—a more formalized economy—would likely be a relatively easy concept to transfer to the sale of donkeys as well. Considering the potential losses to owners and communities of selling a donkey into the skin trade for foreign export, versus to other locals as a domestic laborer, implementing a sale regulation may be useful. Requirements surrounding minimum age, or health standards could help ensure that donkeys with a substantial potential working capacity are not utilized for the trade and are instead maintained in communities. Donkeys which have reached the end of their working life due to age or illness and pose only costs to their owners could be well-utilized as a foreign export in hide form as the age of donkeys is irrelevant to ejiao production.

Rather than enforcing price floors, which may act to incentivize the slaughter of otherwise healthy donkeys, market forces would likely be useful in establishing equilibrium rates for old, sick or injured donkeys. While I am unsure of the potential price point, a rate above the average cost of maintenance per individual donkey (210 SAR) may feel appropriate to owners who could simultaneously negate their yearly costs and receive a profit.

While in theory this may be a positive solution for South African donkey owners and Chinese ejiao producers, the relatively low number of hides procured under a well-regulated system and insufficient constant supply would likely result in ongoing theft within South Africa to meet the demands of Chinese customers. Insufficient data on the exact number of donkeys in South Africa negates the ability to define what percent of those are currently used in either a working or breeding capacity, and what percentage might be appropriately utilized in a well-regulated trade scenario. If this option were considered, a thorough survey throughout South Africa would be necessary to determine whether the yearly quota of 10,500 donkeys would be too high based on supplies of elderly or sick animals, or whether it could potentially be increased based on the findings. Based on the information I gained from performing interviews, it seems likely that the number is relatively low as donkeys have a long working and breeding life and tend to be resilient to sickness and injuries.

3.3.4.2 Sub-scenario Two: Commercial Breeding

Another commonly proposed idea for combatting the pervasive issues associated with the donkey skin trade is to begin commercial breeding operations in countries like South Africa. In theory, this could expand employment in rural areas and current donkey owners would be ideal candidates for employment due to their knowledge and experience caring for the animals. Stronger infrastructural and organizational support may also result in a higher price per hide from increased bargaining power and the usage of donkeys as domestic laborers versus foreign export products is allowed to separate, thus negating the damaging side effects discussed previously. Additionally, through breeding programs the issue of low and sporadic supply for external export could be improved, especially if utilized in tandem with the sub-scenario described above which would allow well-regulated utilization of old or sick donkeys as well. This option theoretically appears the most advantageous for South Africans, yet serious impediments exist primarily because of the complications of commercially breeding and farming donkeys.

In South Africa, donkeys are kept on a small-holder, free-range basis, in groups usually between one to twenty animals per person. They are generally allowed to forage for food and water at night or during the day in the surrounding bush areas and kept in circular wood-fenced pens (called kraals) when not working or ranging. This helps to keep costs low for owners as it requires them to only provide supplemental necessities to their

donkeys such as vaccinations, vitamins, topical medication for wounds, or extra food during drought periods. Free-range practices help to maintain sustainable donkey populations for local land capacity as they allow for widely spread grazing and natural herd movement between eating and drinking. During periods of good rain and local vegetation, donkey populations are naturally allowed to reproduce and carry to term if environmental circumstances are appropriate, while herd sizes thin during periods of drought, or in areas where grazing priorities are bestowed upon cattle or other livestock. Thus, donkey populations are more closely aligned with the local environment's population than what would be reflected in commercial operations, where populations could easily exceed the local environment's carrying capacity.

In a commercialized breeding operation, the sufficient allocation of land, water and grazing resources to a population of donkeys would be a primary concern. When in a permanently enclosed structure, donkeys are unable to forage upon scrub-brush and access water as they normally might in free-range scenarios. Starkey (1995) performed a study to understand how, or whether donkeys compete for resources with cattle in free-range scenarios and determined that while some overlap exists, donkeys tend to focus on rougher materials which cattle exclude from their diet, and that donkeys consume less water while also utilizing it much more efficiently than cattle. Despite this, South Africa's prioritization of cattle over other livestock already creates contention surrounding limited food resources. Adding donkeys as commercially farmed competitors who (when confined in much higher numbers than would naturally occur) require a large amount of feed and water which could also be utilized for cattle may increase tensions in agricultural and rural sectors. Resource inputs for donkeys then are dedicated to the sole purpose of hide export to China versus resource inputs towards cattle which are dedicated to both domestic and foreign consumption.

Multiple other issues surrounding the commercial farming of donkeys for the purpose of producing hides for exports exist as well. Throughout Africa, the consumption of donkey meat is an extremely limited practice, thus, the disposal of complete carcasses with the exception of their hides has become problematic in areas where commercial or large-scale slaughter has occurred. Maintaining proper disposal mechanisms, as well as ensuring that remaining donkey meat is not repackaged and sold domestically as beef is a significant factor to consider, as well as the biological barriers involved in commercially breeding

donkeys. Compared to other common South African livestock such as cattle, pigs, goats or sheep, donkeys have longer gestation periods, have usually only one foal per each birth, and take longer to reach the required size for slaughter (when interested in obtaining hide for ejiao).

Table 23. Livestock Comparison: Breeding and Slaughter Indicators

Livestock	Gestation Period	Birth Ratio (Average)	Age at Slaughter (Average)
Donkey	12-14 months	1 each birth	3 years
Cow	9 months	1 each birth	1.5 years
Pig	4 months	10-12 each birth	6 months
Goat	5 months	1-3 each birth	3-5 months
Sheep	5 months	1-3 each birth	6-8 months

As a significantly more time-intensive livestock than others common to South Africa, donkeys would not only need to consume more resources per year as a farmed versus free-range animal, but also consumer more resources per farmed lifespan than average. With foals staying with mothers an average of 4-6 months, a breeding female could be expected to have one foal every other year after she has reached two and a half years of age (Dai et al., 2017). Expenses for one animal must be accounted for on a three-year lifespan, as well as the consideration that donkeys are relatively difficult animals to breed under commercial settings as they are easily stressed and prone to abort fetuses in unnatural settings (The Donkey Sanctuary UK, n.d.). The sensitive nature of donkeys compared to other common livestock makes welfare considerations a difficult issue as they are known to be extremely social, require a relatively high degree of mental stimulation in enclosed settings, form close bonds with one another, and become highly distressed upon the death or disappearance of a herd member. The capacity of a commercial farming operation to ensure not only that the physiological welfare of donkeys is accounted for in each individual's three-year lifespan, but also emotional and mental welfare is unlikely. Further, incentives for providing adequate food and water which may be relevant for livestock raised for meat consumption are not present in the case of donkey hides as hides are easier to remove from dehydrated, underweight animals (ibid).

Aside from overall resource and welfare concerns (and connected within them) are the high costs associated with commercially raising donkeys, and whether South Africans would receive a high enough selling price per hide to make the endeavor profitable. Isolating the CBA to just a few of the estimated costs involved with the maintenance of an individual donkey at a commercial farming operation, it appears that the price per hide would have to increase substantially. Costs for local employment, infrastructure and operational expenses are not included below.

Table 24. Estimated Average Cost Per Individual Donkey Over 3 Year Lifespan in Commercial Operation

Expense Item	Estimated Cost (Over 3 Year Lifespan)
Water: 27 liters per day	NA, varies widely between province
Food: 2.3 KG of hay per month, 138 SAR	5,000 SAR
Parasite control: every 2 months, 100 SAR	1,800 SAR
Veterinary care (Vaccinations, dental, hoof)	Upwards of 3,000 SAR
Total Estimated Costs	Minimum 9,800 SAR/USD \$679

Considering a donkey hide sells for between USD \$400-500 (2,800 to 3,500 SAR) at the current market rate, commercial donkey farmers in South Africa would likely face losses. The estimates above do not account for water payments, as tariffs in South Africa are implemented on a widely varying basis by province and increased during frequent drought periods. Additionally, the estimate for food costs is based on average market rates for Lucerne hay, but subject to heavy increases during periods of drought. Commercial solutions to parasite control may help to lower yearly costs for producers, and veterinary care is unlikely to be provided beyond basic vaccinations as the welfare of the animals, and consideration of dental and hoof health is non-essential to the cultivation of a hide. The existing welfare considerations which are omnipresent in commercial livestock farming could quickly become an even greater issue with the introduction of farmed donkeys due to their unique physical, emotional, mental needs as well as the time-intensive process of breeding and raising them.

The concerns have already been realized in Kenya, where commercial donkey farming to supply hides to China's ejiao industry has emerged openly since 2016. Issues surrounding the breeding, profitability and subsidization of commercial donkey farming was outlined

in a 2017 article by Zhang Ye, titled, *Let's Breed* in the Global Times. The managing director of Kenya's first donkey slaughterhouse, Lu Donglin, was interviewed and discussed the economic difficulties associated with donkey farming due to their long investment cycles which he estimates creates an industry ratio where five donkeys must be sold to offset the full costs of just one. At the time of Ye's article, China had recently begun subsidizing some of their domestic donkey farmers who raised the animals for the use of skins as well as meat. He found that a farmer in Shandong, China's primary ejiao producing province, could receive around USD \$45,000 in subsidies for breeding 1,000 donkeys. South Africa, however, provides little subsidies to its existent agricultural industries and as a mixed-market economy (versus China's socialist-market economy) is unlikely to begin the practice specifically for an export-oriented product with no domestic market.

4. Discussion

The literature review, methodology and analysis sections of this paper have developed a broad picture of the situation of donkeys in South Africa used for two separate purposes: first, as domestic laborers and second, as a foreign export product in the form of hides. The literature review outlined the standard uses of donkeys in developing countries, and Africa more specifically while also introducing ejiao as a product, defined its growing market, and discussed the historical progression of the economic and political alliance between South Africa and China. Within this overview, I examined two principle ideologies which dominate mainstream interpretations of China's role as a growing world power, first, the neocolonialist perspective and second, the "room for maneuver" perspective. The methodology section highlighted four concepts of analysis in this paper which uses two grand theories, Amartya Sen's capability approach, and Raul Prebisch's dependency theory, a data collection method of semi-structured interviews with donkey owners and data analysis through CBA scenarios. The analysis then, worked through these four concepts by breaking the in-person interview questions and responses into sections which correspond to Sen and Prebisch's theoretical foundations. Questions one through seven targeted Sen's capability approach, while questions eight through eleven applied questions which could be used for a cost-benefit analysis which, when paired with secondary data from the donkey skin trade, could be utilized to assess the trade from a dependency theory framework.

The discussion below summarizes results from the set of in-person interviews as they correspond first to Sen's capability approach, and second, to dependency theory. In doing so, I aim to answer the research question which seeks to decipher whether donkeys have greater worth as a domestic laborer or as a foreign export product in raw form to China and explore how the hypotheses were or were not met. Finally, the discussion section will review the applicability of this study to other African countries, and the wider development sphere and provide suggestions for future research.

4.1 Dynamics of Donkeys as Domestic Laborers Versus Foreign Export Products

Utilizing the two theories produced by Sen and Prebisch has allowed for a thorough and dynamic analysis of understanding the "worth" of donkeys in South Africa. While the definition of worth when referring to a sentient life form has exponential meanings across the world and in different contexts, here I refer to the worth of donkeys from a socioeconomic capacity in their relation to humans who depend upon them in harsh circumstances. Thus, I have first utilized Sen's capability approach to understand the social and individual, non-economic component of a donkey's worth in South Africa. Second, I have applied Prebisch's development theory to understand the economic worth of donkeys through CBA's and interpret the results which show potentially destructive economic circumstances bred by the donkey skin trade.

4.1.1 Understanding Donkeys in South Africa from Amartya Sen's Capability Approach

To assess whether donkeys enhance the capability of their owners and broader communities, and how the donkey skin trade impacts them according to Sen, one must evaluate how development indicators from his five freedoms approach are impacted. Below, I will summarize results from the analysis according to Sen's five freedoms by discussing in which manner (domestic laborer or foreign export product in form of hide) donkeys have the greatest positive or negative impact. Using Sen's capability approach will help to determine in what ways donkeys enhance their owners' and communities' development outcomes via the functions that donkeys perform. I then conclude with a broad perspective on the development capacity that donkeys afford to South African owners, communities and as a national labor and support source and the ways that the donkey skin trade inhibits those advances.

Political Freedoms: Sen's first freedom revolves around the political liberties of citizens such as institutional arrangements, opportunities for free and open debate, public hearings and discussions, freedom of the press, diversity of political parties, free elections, checks and balances of authorities, a decentralized system and participatory engagement of citizens (RURPC, 2007). Donkeys have a slight role in this process by potentially aiding in the transportation of rural owners and community members to political meetings and voting and polling stations. They also connect a group of people (donkey owners and reliant community members) together for a common cause which was evident through my group interview in Bahananoa. Local donkey owners collaborated in the discussion to facilitate exchanges with each other about how they use them, agree upon average selling prices, determine pressing issues in the community surrounding donkeys, and vocalize areas of need in order to improve their animals' welfare and thus, their own economic viability. While political freedom is only slightly enhanced by donkeys, the capacity for greater advocacy through group mobilization of owners and dependent community members could be highly beneficial for improving donkeys' capacity in rural spaces to impact even greater change.

The donkey skin trade could be determined to have had constricted political freedom through enticing provincial governments to omit public discussions and expected policy research into proposed commercial arrangements. Additionally, the persistent issue of corruption throughout South Africa's government paired with highly monetized returns associated from ejiao production and incentive for Chinese retailers to obtain hides regardless of legal or illegal methods, increases the likelihood that corruption was, and is involved in the trade. Influence of monopolistic market pressures and personal agendas of politicians are also potential constraint factors (RURPC, 2007) within the operations of the donkey skin trade in South Africa.

Economic Facilities: Sen's second freedom, economic facilities, is significantly enhanced by the use of donkeys in rural spaces as evidenced through both the qualitative and quantitative assessment questions from in-person interviews. Donkeys are utilized by owners to generate income by performing fundamental tasks in rural spaces and are prioritized by the community members who hire them because of their lower cost than cars or tractors for the same work. They work dually to increase the income of owners,

while providing a savings benefit for dependent community members. Additionally, for donkey owners who use their animals purely for household needs and do not receive earnings from the work they perform, they save the money they would otherwise spend to hire someone else with donkeys. As seen in Question 8 of the in-person interviews, costs per donkey are relatively low, thus their economic contributions to households allow for enhancement of economic freedoms in a variety of usage scenarios.

When asked to describe specifically how donkeys enhanced their economic capability, interview participants acknowledged that donkeys facilitated employment opportunities via donkey-related work, enhanced access to markets through transportation of self and goods, provided savings opportunities, enhanced opportunities for home ownership and inclusion of family members via property expansions, and enabled income-earning owners to broaden their business horizons by funneling donkey-related income into businesses such as a cattle, and shop ownership.

Sen (2001) targets economic exclusion and economic unfreedom as primary inhibitors of citizens' capacity to reach full development. The donkey skin trade, while providing immense economic advantage to buyers and Chinese retailers, has had devastating effects on donkey-reliant owners and communities, thus inhibiting their ascension to economic freedom. Though the argument has been applied that when compensated fairly for the purchase of their donkeys, owners receive an immediate profit, that fails to compensate the long-term benefits they would gain otherwise by retaining a working donkey. The sale, or theft of donkeys into the skin trade equates to constraints on economic freedom in the form of lost employment opportunities, lowered long-term income, high inflation, monopolization of local markets, unfair trade, price manipulation and markets controlled by personally driven agendas which cater to foreign interests (RURPC, 2007). Advocating for the heavily regulated market conditions necessary to attempt to facilitate a legal trade between South Africa and China is additionally constraining as it equates to market setting which disallow natural equilibrium due to monopolistic conditions and the incentive for buyers and retailers to respect South African restrictions remains absent. Additionally, the presence of the donkey skin trade in South Africa and potentially protective steps to prohibit the trade inhibit pure economic freedom according to Sen, as prohibitory measures are constraining as well.

Social Opportunities: Sen describes social opportunities as the freedom which enables good health, basic education, cultivation of initiatives, gender equality, women's well-being, child-care and property rights for women (RURPC, 2007). From my interviews, I found that donkeys enhance social opportunities in many of these areas, however, my data lacked significant input from women in the community which may be because donkeys in South Africa attribute relatively little to their overall independence and economic and social achievements, or because I was unable to target the correct sample which could help illuminate this issue. However, in many interviews donkeys were cited as helpful for youth through supplying of children's school uniforms, supplies and fees as well as lessening the burden of chores and total time performing necessary physical labor for the household. Additionally, in Disaneng where the role of transportation by donkey for specific purposes such as medical clinics, transporting pregnant women, or reaching or larger towns was discussed. This indicated that donkeys help to facilitate healthcare improvements in areas where infrastructural and developmental progress has not arrived.

The physical labor shared between owners and donkeys as well as dependent community members is another significant factor which improves citizens' health. Without donkeys, and the money or infrastructure to support mechanized options, locals are forced to perform tasks by hand. Ploughing vegetable and crop fields (an extremely difficult task in hardened, arid soils), water collection by carrying or rolling large tanks from a distant water source, chopping firewood or collecting sand and pushing it across uneven paths in a wheelbarrow are just some of the tasks they would face. Additionally, they would need to walk, or pay to taxi between distances as transportation in some areas is limited to donkeys, bicycles, occasional taxis and privately-owned vehicles. Because of the increased time and energy spent on, and between each task, it is plausible, that rather than sending children to school, it would be necessary for parents to require them to work instead. Throughout the developing world this phenomenon is widely acknowledged (in relation to similar issues) and shown to lead to an unbalanced number of young girls reaching only preliminary educational levels.

Donkeys were identified also as being a key reason why some of the interviewed men were able to stay at home with their families instead of moving to larger cities in South Africa. Rapidly increasing urbanization throughout developing countries, and South Africa's conflictual history with economically-forced male migrant labor, should dictate

that efficient, reliable, low-cost and positive tools within rural spaces that facilitate their ability to remain at home if they wish, should be greatly valued. Community cohesion is vital in remote, rural spaces which utilize scarce resources in infrastructurally-minimal settings. Donkeys not only have shown to increase capacity for better education and health outcomes, and family stability, but also the enhancement of communal relations. Numerous interviewees commented on their valued position as a community donkey owner, how that opened up areas for them to assist and build relationships with neighbors and provide goods and transport for important cultural events like weddings, funerals and celebrations.

The donkey skin trade in its best-case, commercial farming scenario could funnel a niche employment market for a few thousand men in rural spaces yet drain scarce local resources which already struggle to maintain livestock populations and provide one-time payments of less than what a donkey's long-term economic and social worth is to owners and communities. It is irresponsible to engaging seriously with the idea that regulating traded donkeys to the old or sick, and not expecting seriously distortionary effects (intentional injury, falsified age, and ongoing theft and bush-slaughter) to continue based on the growing demand and profitability of ejiao. The ability of the donkey skin trade to swiftly eliminate individual livelihoods, community resources, and important linkages to development in a difficult environment is its most serious threat. The fact that this destruction occurs in a monopolized, deceptive, and violent manner to supply a medically unfounded treatment to satisfy China's rising middle class strongly replicates historically exploitative colonial relationships for Africa.

Transparency Guarantees: By freedom of transparency guarantees, Sen is referring to aspects of judicial and police protection systems, that they be fair, free from corruption, and have accountability to the public (RURPC, 2007). Donkey as domestic laborers have no apparent intersection with this aspect of Sen's five freedoms. The donkey skin trade, however, has violated South Africa's transparency guarantees through encouraging illegal activity at multiple levels in its supply chain. Corruption, theft, illegal exportation, overextension of transport quotas, illegal bush slaughter, massive transport violations, crossover with black-market items and border smuggling are commonly occurring crimes within the trade. Efficient, protective systems at the height of trade activities in South Africa were not in place to support donkey owners who faced associated theft or pressure

for unregulated sales. As a result, I spoke with owners who felt they could not have filed formal reports with police, attempted compensation from the government, or depend upon future protection outside of their own personal or communal efforts. Not only had the trade deprived them of their animals, it also exposed the government's inability to protect its vulnerable citizens from negative reaches of globalization and the failure of development initiatives to understand and effectuate progress equally.

Protective Security: Sen's fifth freedom, protective security, deals with a development factor's ability to provide security and measures surrounding catastrophic disasters (RURPC, 2007). While loosely linked, donkeys' ability to better withstand periods of drought and more efficient utilization of food and water resources than cattle may qualify them as an asset in one area of this freedom. In regions where drought occurs in problematic, cyclical patterns, I spoke with donkey owners who stated they switched to donkeys from cattle specifically because of this benefit. Preservation of cattle as a food, rather than labor source, especially during periods of scarcity or impending environmental disruptions could allow South African communities to ensure food security in crisis situations.

The donkey skin trade is noted for its to rapid consumption of local donkey populations which are slow to reproduce and reach full maturity of strength and training for work. Thus, it threatens the capacity of communities who have lost their donkeys through sale or theft, to maintain or enhance their protective security.

4.1.2 Assessing the Donkey Skin Trade from a Dependency Theory Perspective

While trade between countries is generally viewed as a positive economic activity, the trade negotiations between African countries and China involving donkeys are proving to be lucrative only to the buyers or Chinese retailers involved. Chinese producers reap rewards of the trade and while potentially providing immediate income to owners who sell their donkeys, have decimated the long-term agricultural outlook in many rural African countries. Below, I examine the ways in which the donkey skin trade is embarking on the damaging patterns of a core country, described in Prebisch's dependency theory, and assess the manner in which South Africa has become a peripheral country. Findings from the analysis section CBA's will be utilized to assist in drawing conclusions, as well

as drawing from overarching themes in the demographics and qualitative responses from in-person interviews.

China's expanding role as a global economic leader, and focused interest upon the resources of developing nations, especially within Africa, has elevated its status to that of a 21st century core-country under the constructs of dependency theory. South Africa, according to dependency theory, remains a peripheral country not only to its former colonial rulers in Europe, but increasingly so for China as well. Rather than having developed internally in its post-apartheid era, South Africa prioritized expansion of its international economic alliances, thus constricting the country to economic dependence upon the exportation of raw materials through low-skilled labor and import of value-added items requiring highly-skilled labor to produce (Prebisch, 1981). For Prebisch, this does not equate to development, as South Africa's raw materials were purposed for the expansion and development of China's economy rather than its own (Faletto & Cardoso, 1971). Faletto & Cardoso, examined this relationship model in their 1971 article, *Dependency and Development in Latin America*, stating that the outcome of national exports of a product depends whether the market conditions are competitive or monopolistic – the first being more favorable for producers and latter being in general, exploitative. The conditions within China for ejiao production are extremely monopolized, with one company, Dong-E-Ejiao, controlling over 70% of the market share, and a handful of other large companies leading behind it. Trade operations are equally distorted as Chinese and middlemen buyers have exponentially greater capacity and resources to purchase donkeys on a large scale throughout South Africa than locals. Such monopolized power has enabled China to disrupt local donkey markets and influence political agreements which show little investment in ensuring the protection and benefit of marginalized South African citizens. Prebisch (1971) critically defines this allocation of external control within dependency theory as a case study in the activities of core and peripheral countries.

South Africa's quest for development, especially in rural areas has historically hinged on preconceptions of modernization and technological advancement as primary indicators of progress. Prebisch (1971) notes a similar trend from his Latin American observations in the 1970's and details a strikingly similar failure of development paradigms from that period: "Increases in income which development brought in its train, and which in many

countries were substantial, were concentrated in the few hands that already held land and wealth in their grasp.” South Africa’s most recent Gini coefficient update from the World Bank in 2014 showed that the country was ranked as an international leader in high inequality (0.63), indicating that dependency theory’s conditions apply, and that developmental gains have not had the widespread impacts they purport to. Dependency theory predicates that social equity be prioritized in the movement towards overall societal development, necessitating distribution at economic levels through political means (ibid). The donkey skin trade further strips rural South Africans of their means of managing within a society that has left them behind, and political or economic engagements by South African leaders reverse efforts to distribute social equity even further. Social integration through valuable employment of relatively isolated populations, such as those in rural spaces in South Africa, is identified by Prebisch as a positive solution to inequality.

Until greater capacity for formalized employment channels, modernization and infrastructure is developed in rural areas of South Africa, donkeys will continue to be vital in the facilitation of informal, independent work. China’s capacity to absorb them as a raw material, and growing market, pose a serious threat to this capacity for building employment. Prebisch dictates how development then, must be a conscious undertaking at the national level for periphery countries to prevent such distortionary interventions from core countries; not advising isolation, yet prescribing structural changes which prioritize meaningful development by integrating those most at risk of being left out of progress. Uncritical beliefs in “the regulatory virtues of the forces of the market have caused us to lose sight of the ethics of development,” stated Faletto & Cardoso (1971). These beliefs remain pervasive at high-levels of policy making, evidenced by South Africa’s eagerness to engage in, and hesitancy to ban the donkey skin trade despite the detrimental effects demonstrated upon citizens who should be model targets for development efforts.

South Africa’s engagement in trade with China, as reviewed in the literature review, has deeply political undertones, due in part to China’s commanding political presence in international funding institutions and policy organizations and the country’s capacity to either positively or negatively wield that power upon South Africa. Dependency theory flags this as a crucial element within core and periphery relationships, and one which

assists in maintaining status-quo market operations for core countries (Faletto & Cardoso 1971). China depends on the retained underdevelopment of South Africa's economy, thus ensuring the country's best prospects, and energies remain in the export of raw materials, facilitated by low-skilled labor. In turn, this creates a void of value-added materials, highly-skilled labor, and internal development which reaffirms South African dependence upon China for imports, and Chinese political dominance over the South African economy. Prebisch (1971) notes the danger of such a predicament, stating that, "In extreme cases of dependence, decisions affecting the production or consumption of a given economy are taken in terms of the growth and interests of the developed economies."

The CBA's outlined in the analysis section, while maintaining broad estimates from a small sample size, provide a snapshot of how greatly the interest of the donkey skin trade is for China, and how decidedly little positive, and overwhelmingly negative side effects it delivers for South Africa. Gains for donkey owners from selling animals into the trade (assuming they are not needed for the owner or could be purposed for work in the community) are miniscule compared to the returns received by buyers and Chinese retailers. This heavily unequal exchange of raw materials (in form of donkey hides) which requires only low-skilled labor in South African settings, gains exponentially added value once formed into ejiao and sold to Chinese consumers. The process of ejiao production is traditionally composed of ninety-nine distinct steps, with over 3,000 famous recipes, and 200 diet therapies within TCM (Nan, 2015). Additionally, China is actively increasing its technological capacity to revolutionize the production of ejiao through mechanized production-lines and genetically engineered breeds of donkeys who reach appropriate hide-size much sooner than others (Hancock & Xueqiao, 2018). This indicates that while China is able to utilize the booming industry for ejiao to develop technological advances for TCM, production, and livestock programs which can potentially be applied to other areas, South Africa is left only with a declining stock of its raw materials and a further-marginalized rural population.

4.2 A Donkey's Worth in South Africa

Through my research, I personally witnessed how vital donkeys are in many small, remote, rural areas of South Africa and was incredibly fortunate to find so many owners

and community members who were happy to tell me about the relationships they have with their animals. My deepest hope in undertaking this research and telling their stories, is that the power of donkeys in their lives has been fully conveyed. While I cannot adequately portray the expressions, smiles, sighs, and quiet pauses I experienced in asking some of these questions, I have attempted to highlight the holistic role that donkeys have in communities from an individual, familial and communal level. Examining donkeys' contributions from a purely economic standpoint would leave an immense portion of their value from the research, as they have shown to be of nonstop household and social value even when relieved from economically-motivated work by their owners. Whereas a tractor may be parked by a field it has helped to plough, a donkey transports its owner home when the work is done, likely picking up water or firewood on the way.

The guidance of Sen's capability approach assisted me in analyzing qualitative responses from a range of donkey owners and dependents: those who use them as a sole source of income, a partial source, and those who use them for household use only, as well as community members who prefer hiring donkeys over cars or tractors due to income restraints. Donkeys contribute to these residents by filling the gaps that most of the world assumes have been mended by development. Where rural households have been left behind through staggering poverty, unemployment and environmental or infrastructural hardships, donkeys have kept them moving physically, economically and socially. The implications of their use reach far beyond the handlers who directly benefit from them as they assist in providing necessities for children, expanding family homes, generating rural employment and income, dispensing water and firewood throughout communities, transporting goods and people to cultural events and gatherings, lessening dependence on social welfare, and shifting physical burden from cattle to increase communal protein supplies.

Prebisch's dependency theory argues against engaging in exploitative trades which monopolize foreign dominance and encourages the prioritization (especially for vulnerable populations) of valuable domestic employment where possible. Donkeys, in their capacity to build employment while simultaneously filling communal needs in a more cost-effective manner than motorized vehicles, fulfill this qualification. As a low-cost, low-maintenance, and high-impact tool for communities, dependency theory would likely champion donkeys as a method of fulfilling development needs in the spaces where

development efforts have either failed, or not arrived. The capacity of donkeys to supply livelihoods while completing necessary tasks while alleviating owners of dependency upon outside aid, governmental support or foreign investment schemes is a power which beyond owners and dependent community members, is unfortunately not widely recognized.

The donkey skin trade is unable to provide anywhere near the socioeconomic value which donkeys funnel into rural communities. As explored in the CBA's, in a best-case scenario, owners are able to obtain market value for a donkey they and others would not use. More commonly, however, owners feel pressured to succumb to selling working (or workable) donkeys and actually face long-term losses which are commonly compounded through having their animals stolen by the trade. Not only does this incur financial losses for owners and communities, but also increases physical burdens and feelings of hopelessness, anxiety, and communal strife in an already difficult setting. The potential for a well-regulated trade, as some have advocated, is largely pushed by South African leaders who likely have little idea of the socioeconomic value of donkeys in communities due to their widely underappreciated status, and a willingness to appease eager Chinese partners. Political ambitions may be much more easily satisfied by aligning with prominent foreigners, however, if South Africa wishes to comprehensively achieve development it must assert independence and autonomy where its citizens require protection as in the case of the donkey skin trade.

The likelihood that a formalized agreement between South Africa and China for the trade of donkey skins could be beneficial to anyone but political elites, buyers and Chinese retailers is extremely suspect. CBA's and sub-scenarios of well-regulated circumstances in the analysis section demonstrate the inefficiency and unsustainable elements of formalized agreements due to specific biological challenges of donkeys, scarce resources, and lacking subsidy schemes. Expecting that export quotas to be respected by buyers and Chinese retailers is fanciful, although currently practiced. The black-market status of the trade in South Africa makes estimates hard to determine, but officials are certain that the number far exceeds the annual 10,500 hide limit due to multiple large-scale smuggling cases. Even if acquiescing to the trade through an increase in licensed equine slaughterhouses and establishment of minimum age or health requirements, South Africa would inevitably experience heavily distortionary factors as has been evidenced to

devastating effects in Kenya. A raw material with such immense earning potential for Chinese retailers who face little to no repercussions for the foreign crimes of their industry, is unlikely to inspire responsible and respectful actions.

Rather than each scenario of donkey usage (as a domestic laborer or foreign export) presenting benefits for South Africa, it became clear through this analysis that while the first was exponentially beneficial, with little associated costs, the latter was detrimental. Faced with the choice to prioritize donkeys as domestic laborers or foreign export products, it should be clear from these findings that donkeys as domestic laborers in South Africa have infinitely higher value than what could be gained from engaging in the donkey skin trade. Not only that, but the research has demonstrated that donkeys should be actively protected, and more highly valued at elevated levels of South African society and politics for the essential role that they have in rural communities. Taking steps to officially ban and discourage the donkey skin trade within South Africa would be an ideal first step in achieving this.

4.3 Applicability of Study to Other Developing Countries

The three areas I visited in South Africa were geographically and demographically very similar as each location was no more than 6 hours from Johannesburg, from the Northwest to the Northeast. Variations between the three locations and how they utilized and kept donkeys existed, however it was very slight. The largest differences were observed in market prices for the buying and selling of donkeys and this is likely reflective of the overall economic differences between areas. The foundational aspects in which donkeys added to the socioeconomic development of each location was consistent, however. The literature review highlighted a range of studies performed by researchers throughout Africa which reported similar findings of how donkeys aid in employment generation, self-sufficiency, lessening physical burdens of owners and community members, improving access to water and food resources and being a low cost, easily used tool for agriculture in rural spaces. The broad findings of this study regarding the overall value of donkeys in development spaces and damage incurred through the donkey skin trade, are likely highly applicable to greater South Africa, Africa, and other donkey-dependent communities in the world.

With the growing market for ejiao, it is unlikely that China's global search for donkey hides will slow. Countries whose development progress has not negated the need for working animals should carefully examine, from both an economic and capability perspective, how their citizens could be negatively impacted by the trade and take precautions in establishing formalized agreements and ensure protective mechanisms and prosecution of illegally operating buyers, exporters and trading companies. Building awareness amongst leaders and policy makers in countries who have been, or are likely to be targeted by the trade may be highly useful in developing a comprehensive approach to mitigating the negative impacts of the trade while finding appropriate methods to protect donkey owners, engage with Chinese partners through responsible and well-regulated markets, and better understand the importance of donkeys in developing countries.

4.4 Opportunities for Future Research

Throughout this process I spoke with many individuals and organizations who were simultaneously surprised and appreciative that I chose to undertake this as my research project due to the relatively understudied nature of donkeys as domestic laborers and the impacts of the donkey skin trade. Primarily, investigations of the donkey skin trade in South Africa exist through media sources which, while beneficial to raise awareness, have done little to address the trade's policy or economic implications. As theft incidences of donkeys have declined in South Africa, less attention is being paid to the trade and donkey owners. What could be studied further then, is how the donkey skin trade inflated local market prices for buying and selling donkeys and what price adjustments have occurred in the relatively recent absence of the trade.

A significant gap in data for donkey numbers throughout the world exists which the FAO attempts to cover through broadly estimated figures in its global livestock database. Aside from estimated total donkey populations, the contributions of donkeys to rural economies is relatively unknown, and thus, only acknowledged when a crisis such as the donkey skin trade or widespread diseases emerge and decimate working populations. Stronger country-wide data on the economic impacts of donkeys such as average income per entire household with donkeys compared to average local amounts, a comprehensive study on the market prices of donkey-related work activities throughout various spaces, and an

understanding of how donkeys generate rural employment and economic activity would enhance policy-makers' understandings of the animals, as well as rural spaces and the extent to which they ameliorate development shortcomings. Additionally, a study of donkeys in South Africa and their applicability, directly or indirectly to women, children and the elderly in rural spaces could be hugely beneficial in better understanding their function. From greater quantification and understanding of the modern-day role of donkeys in developing countries, deeper policy analysis could be seriously undertaken to evaluate the benefit of financially connecting donkeys to 2030 SDG initiatives.

Aside from donkey-related research, as I was attempting to better understand the specific demographics and related challenges in the three small, rural communities I visited, I was surprised to realize how little is chronicled about them. This is a potential barrier to governmental or development organization's efforts to provide comprehensive support. Lacking understanding of basic demographics, and the voices emerging from the communities in a larger sphere of the South African discussions leads to a disconnect from a societal up to governmental level of the ongoing lifestyle, needs, accomplishments and difficulties in isolated areas. Financial, technological and transportation limitations in rural are some of the most likely external factors in this exclusion, while cultural, racial, age or gendered demographics could play an integral role in internal factors. We must be conscious however, of how Western frameworks have traditionally attempted to structuralize pastoral, traditional communities to enforce government standards and systems such as taxes and enforcement of local and national legislation. My emphasis upon documented, ordered confirmation of donkey owners, their livestock and the communities they reside in may ultimately not be welcomed in these areas and that is an area for further ethical consideration and discussions with residents where possible.

CONCLUSION

After evaluating results from in-person interviews which respond to Sen's capability approach and interpreting the estimated results from various CBA scenarios within a dependency theory perspective, I have determined that donkeys have the greatest value as domestic laborers for South African donkey owners and communities. Rather than maintaining some (albeit less) value as foreign export products to China, I determined that the export of hides is instead, a losing situation for South African donkey owners and

communities. While the trade harbors immense benefits for Chinese retailers, the exchange is drastically unequal even in its best-case scenarios, and immensely damaging in its worst.

My three working hypothesis through the research were 1) retaining donkeys as domestic laborer's versus selling for export to China is a more socioeconomically beneficial option for South African owners and communities, 2) the CBA scenarios will show that their benefits outweigh costs on an individual, communal and gender-oriented basis and 3) that donkeys are beneficial for women's advancement, gender equality and poverty eradication in rural areas of South Africa and the donkey skin trade threatens these advancements which outweighs the trade's economic potential. I believe I have proven through a mixed methodology approach, the socioeconomic benefits of donkeys as domestic laborers in South Africa, that costs of donkey ownership are limited while the benefits are substantial for individuals and communities. Where I do feel the hypotheses were not fulfilled is within the expectations that donkeys in South Africa have direct, and significantly positive impacts for women.

As noted in the literature review, many studies have shown socioeconomic improvements for women associated with donkey use, however, I did not find that within South Africa (in my interview locations) they are used by women. The gendered limitations which exist with the use of cattle and horses seem to apply as well to donkeys. While the indirect benefits are likely still applicable such as increased household income, and lessened burden upon women, I was unable to speak with enough women in my interviews to gain significant insight to this. For further research, it would be useful to specifically focus on this gendered aspect of donkey usage throughout South Africa on a wider scale to understand the direct or indirect benefits, disadvantages or limitations women face regarding donkey ownership and use.

From the research conclusions, I suggest that South African policy makers reconsider their affinity towards potential formal agreements with Chinese traders interested in establishing connections for the donkey skin trade. In tandem, greater protections for donkey owners in areas at risk of theft or monopolized sales should be instated, as well as a process for reimbursing or subsidizing those who have lost donkeys to the skin trade. Increased awareness for and support of donkey owners amongst policy makers, business

owners and greater South African society could improve livelihood outcomes in areas of South Africa where other development schemes (like modernization and mechanization) have failed or not arrived. The applicability of donkeys to reaching the SDG's in South Africa should also be evaluated at a policy level, and greater emphasis placed upon their welfare outcomes in order to improve their capacity to fulfill such goals.

As a note of disclosure, I must acknowledge my personal affinity for working equines and long history of working with horses in a hobbyist capacity and participating in development projects focused on improving working mule welfare. While this certainly could impact the emphasis of this research, I have made a conscious effort to focus on the humans, rather than the donkeys affected by the donkey skin trade and do so in an academic manner which responds to my degree program in International Economics and Political Studies. The research was largely inspired by my passion and belief in the benefits of working equines and is a necessary academic contribution which is one of the relatively few on this topic. The relevancy and impact of the donkey skin trade paired with its under-researched status (especially within academic fields) makes this a significant, and unique contribution to academic literature.

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