The Mongolian Mining Industry's Impact on the Livelihoods of Nomadic Herders

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Bachelor Thesis: UTVK03, 15 hp
Spring Semester 2015
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Abstract

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Mongolia, known as the Land of the Nomads is one of the last few countries where a significant portion of the population lives as nomadic herders. Since the Soviet Era and past the democratization of the country, the once nomadic herders are seen moving from the steppes to the major urban centers. This study examines if the influx of mining operations have a major hand in the changing of the nomadic herders livelihoods such as employment and migration to urban centers. The study used world-systems theory, labor market segmentation theory, as well as using the resource curse concept to look into the labor market and if resource reliance is having a impact on the livelihoods of nomads negatively. While the pressure from the government and the push for modernization were some factors that played into the migration of nomads. The mining industry as well as job availability and better education for nomadic children were the main reasons for migration from the countryside. The conclusion drawn from this study was that the mining industry is having a large role in the change of Mongolian nomadic livelihoods, with the destruction of the environment, preference of employment for urban residents and with competing for land. On the good side, many nomads are turning to eco-tourism as a secondary source of income and to help protect their lands by showing it to tourists.

Key Words
Migration, Mining, Mongolia, Nomads, Rural, Urban
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Mongolian Words:

Dzud - is a Mongolian term for a severe winter in which large number of livestock die, primarily due to starvation due to being unable to graze, in other cases directly from the cold.

Ger or Yurt- is a portable, round tent covered with skins or felt used as a dwelling by nomads in the steppes of Central Asia.

Negdel- the common term for the agricultural cooperatives in the Mongolian People's Republic.

Aimag – Province

Sum- County

1. Introduction

“One of Mongolia's best historians, Charles Bawden, writing in 1968, opined: 'If nowadays the Mongols are to integrate themselves in a world whose increasingly uniform culture demands factories, farms, and cities, then nomadism will have to disappear. If the Mongols were to stand aside from this process they would finish up as curiosities, survivals in a reservation' (Bawden 1968: 387)” (Bruun, 2006a: 49). The Mongolian nomads are people who live off herding livestock and move to different pastures throughout the year, never living in one location for the entire year. Despite the harsh conditions of this way of life, Mongolians have been been living as nomads for hundreds of years. As Mongolia continues to modernize, domestic and foreign mining companies are trying to gain access to Mongolia's rich mineral filled land. The Mongolian nomads way of life is in danger of disappearing through the loss of land, being pushed by the government for urbanization and the migration of nomads to the cities for better economic opportunities. Mongolia is a land rich in natural minerals; because of this many mining companies have moved to the country to exploit the minerals. With the introduction of heavy mining in a country that has some of the driest regions of the world and a vulnerable environment the Mongolian nomads are being forced to adapt to a new government and economy which puts resource exploitation above preserving their culture. Mongolia has been urbanizing and moving away from the traditional life of herding in the wide grasslands in favor of urban living. Is this a natural way of progression or the result of decades of former Soviet rule combined with the new democratic government preference for urban centers to that of traditional rural lifestyle?

1.1 Research Aim and Questions

The aim of this study is to explore and analyze the impact of the mining industry has on the
nomadic population of Mongolia. With the nomads of Mongolia being a large portion of the population of the country this study is to see if the increase of mining in the country is changing the way of life of the Mongolian nomads. The question that will be looked at in this study are “How does the mining industry affecting the livelihoods of the nomadic people of Mongolia?” The impacts the mining sector has on the pastoral community can be large as well as on the environment. With a population size of just over three million the economic benefits of the mining industry can be a huge boost to the economy at the cost of getting rid of the nomadic traditions and the destruction of the environment. This study will also be looking into “How does the intensive urbanization affect the Mongolian nomadic culture and traditions”, “to what extent are the mining industries influencing the Mongolian nomads migration to the cities?” and “how does the increase in resource exportation affect the Mongolian reliance on raw materials rather then finished products?” The mining companies draw people from the surrounding areas to try and get work, while the mines hire people from other cities (World Bank, 2006: 21). This draws many younger people away from the pastures for a more stable salary then living off livestock production. This study based upon secondary sources and a theoretical framework what will be used to analyze the data collected.

This is important for a country where almost half of the population is currently living as nomads and where a majority of the Mongolian economic exports are coming from the mining sector (Lovgren, 2008). Massive urbanization has taken part within the country in recent decades and there has been a recent trend of large amounts of Mongolian nomads moving out of the steppes and giving up herding to work at mines and in the cities. It can be argued that the government and companies are the ones behind this recent trend as there has been a push by the government and companies for higher quality of employment standards and a larger skill set that those out in the rural countryside would have a lower chance of learning.

1.2 Delimitations

This study is not giving suggestions on how to solves the problems faced in Mongolia due to mining and mass urbanization but rather to shine light onto the problems that are coming to the surface. The environment is a large factor in the movement and impact of the nomads by the mining industry and while this entire study could be conducted for the sole purpose of looking into the impacts to the environment by these companies and how that affects the nomads. I believe it is more important to see how all the problems and issues that arise affect the nomads as there is no one sole reason for the
migration of nomads from the countryside to the cities. I am looking at the Mongolian nomad population as a whole and not in the individual ethnic groups that they may belong to as well as what aimags they currently reside in. This is because different aimags and ethnic groups may have fewer or more problems depending on their situations. While looking into specific aimags and ethnic groups may shed a more in depth look into specific problems that is not what this study is looking into.

While it may have been advantageous to conduct a field study in Mongolia, I believed that the information currently available through secondary sources were sufficient enough to conduct this study. The literature used were focused on the nomads within the country of Mongolia not the autonomous region of Inner Mongolia, China. The majority of the sources used are from organizations in European countries with others being published in Asia. While it would have been better to have more sources and literature coming from Mongolia and other Asian countries, language proved to be a big problem with this. Which resulted in relying on authors and organizations producing publications in English in order to be understood.

1.3 Background

Mongolia a country where a third of the population lives entirely off of herding of livestock to live (Jacobs, 2010). From before the great Mongol Empire which stretched from China to Eastern Europe, these people have continued their way of life living off the land and the livestock that they herd. From the start of the 20th century up to present day a large portion of these nomadic people have started to change their way of living. They are doing this by moving to town and cities in search of better living standards; whether this is due to money, education, jobs, or a stationary home. “The socialist planned economies made massive efforts to industrialize pastoral areas in order to integrate their inhabitants into the new social and economic order” (Bruun, 2006a: 15). This was a move to get the power that was needed to work in the factories, mines, and other jobs that were labor intensive. During the the 20th century the Soviet regime forced the establishment of agricultural collectives. “Under the collective or negdel system all herders became wage earning employees of the state, responsible for the welfare of single species negdel herds, in addition to small herds of their own private livestock” (Dierkes, 2003 :228). These agricultural collectives or negdel limited the mobility of the Mongolian nomads (Bruun, 2006a: 5). This lead to generations of Mongolians moving very little and performing most agricultural work in a set location whether this was with livestock or crops. As well as these agricultural collectives, the Mongolian government made people move from their
agricultural lands to the cities and mines in order to work in the new industries that were being constructed. This forced nomads to give up their way of life in order to work at the government industries. In order for the Mongolians to enjoy free movement within the country they needed to have education and have employment with a skilled job in a city or town (Bruun, 2006a: 5). “Thus, despite the urbanization-cum-modernization during the communist period of planned economy, people have limited choice where they settled” (Bruun, 2006a: 5). This continued until the abolition of the agricultural collectives and the fall of the Soviet state in the late 20th century.

After the abolishment of the collectives in the late 20th century many of the former nomads moved back to their traditional lands and way of life but the younger population that had never lived the nomadic lifestyle, having worked on collectives or in the mining and industrial sectors, had a great difficulty in adapting to the new lifestyle. These young nomads were largely unprepared for natural disasters such as dzud. In 2009-2010 Mongolia suffered from severely large dzuds, “according to United Nations relief officials, nearly eight million cows, yaks, camels, horses, goats and sheep died, about 17 percent of the country’s livestock” (Jacobs, 2010). This left many of the nomadic families without a livelihood and little money. Most families moved to cities namely Ulaanbaatar, the capital of Mongolia. They did this in order to find a way to earn money to be able to survive.

“In Mongolia, however, two remarkable things have happened in the last two decades. The first is that the movement between country and city has taken new forms. A large number of people have moved to the city, but at the same time, because of limited opportunities for making a living there, many have bought a few animals and unpacked the family yurt in order to move back to the steppe” (Bruun, 2006a: 5).

But in the 21st century a new major problem has started to make more families give up their life as nomads and move into the cities, more so than these dzuds. Mining companies started to expand more then ever; new mines and potential mining locations are being exploited by companies. These mines limit the ability of the remaining nomads to continue moving and living as they traditionally have as well as cause damage to the environment which the nomads rely on. The Mongolian government has been expanding the amount of mining allowed in the country due to the significance it has in the economy, where it makes up two-thirds of the Mongolian exports (Lovgren, 2008). This increase in presence from the mining companies has put a larger strain on the nomads. Where these companies set up their operations there generally have been families of nomads using the land for their livestock grazing. When these companies move in and fence off the land, this forces the nomads to try
and find other land that is sufficient for their herds. This can be a problem in a province which has a lot of nomadic families all trying to compete for the same land.

Along with these mining companies making the nomads move to the cities, the Mongolian government has also been pressuring the nomads and other farmers to be moving to urban centers. “Mongolian culture has inherited distinctive sets of notions, dispositions and institutions oriented towards the rural, local and domestic on the one hand, and towards centers, élites and political structures on the other. State socialism invested massively in urban and industrial centers and the ways of life associated with them; making the identification between political centers, élites, and the city even stronger” (Bruun, 2006a: 140). That allows those in charge and with power to reside in the cities while the lower civilians have to either work in the cities or continue living in the rural countryside but with certain stigma against them. “In this new 21st century of globalization and mass media, Mongolia still is conducting this vast and very interesting struggle, experimenting with development policies in a public way before the eyes of its own citizenry and the world” (Bruun, 2006a: 49). Unlike before when the governments of many countries could make most of the countries laws and policies without the general populace know the information, Mongolia is developing its laws and policies when information is on the finger tips of everyone. The Mongolian government can't hide the laws and policies that go on to be possibly passed or vetoed. The Mongolian public will know and the government will hear their opinions. This can be a good and bad thing as not everything the public will want would be necessarily good for the country.

2. Research Overview

2.1 Previous Studies

Previous research into the subject of the mining industry's impact on the Mongolian nomads are mostly related to the environment and do little to talk about the impact on the social impacts. Many of the publications used in this study are focused on Mongolia during the transition from the Soviet government to a democratic government. With new studies coming out about the environmental effects that the mining companies are having on the Mongolian nomads, there are starting to be people who are seeing beyond just the destruction of the land into the destruction of the way of life for a significant portion of the Mongolian population (World Bank, 2006). With a large portion of the Mongolian population connected in some way to the nomads until recently there did not seem to be a large focus
on the problems that have been emerging that are affecting their livelihoods. But since the 1990's there have been studies about the large amount of nomads and people from smaller cities and towns migrating to Ulaanbaatar in hopes of finding a better life or because they have lost their livelihoods due to dzuds, such is the case of many nomads. Don Belt (2011) published an article about Mongolian herdsmen and why they have been moving to Ulaanbaatar in large droves as well as how their lives are now compared to that of living in the steppes. In the same publication it talks about how Mongolians view the Chinese, Russians, and other foreigners coming to do business in Mongolia as those that are “enriching themselves at Mongolia's expense” (Belt, 2011). The fear of foreigners taking over Mongolia is not unusual as seen by the huge investments made by foreign companies into Mongolian industries specifically the mining industry. Due to Mongolia's economy being small, the government has had to rely on foreign investors and foreign aid to help push forward Mongolia's development. While lots of research in recent years in Mongolia is focusing on the mining industry, it looks more into the environmental and economic aspects of the mining while leaving out many other parts.

2.2 Nomadic Life

The nomads of Mongolia move each season as to not damage the vegetation beyond use in coming months. This lead to them having multiple pasturelands for which they graze their herds. For the better part of the year these nomadic households are individualistic and but during the warmer seasons multiple households gather together at one pasture and spend the season with other households. By having many different pastures they allow the to regrow and for it to be useable for many years rather then staying in one location until the ground is unable to support the nomads herds. Since the de-collectivization of the negdels many nomads are moving less due to a lack of material and the capacity to move, but they are also moving less now due to the need to secure their pastures so that other nomads and people do not take their land (Myadar, 2009: 175). With the privatization of land the practice of moving to different pastures has become hard then before for the nomads. Many of the nomads in Mongolia able to support themselves just by producing enough to live, they are substance nomads. This does not allow the nomads to earn enough to improve their living standards and it leaves them open to the dangers of a dzud where they lose most or all of their herds and are no longer able to keep living as nomads due to losing their livelihoods.

Mongolian nomads live in traditional round tents known as a ger or yurt. These are made out of felt or animal skins which are able to be packed up and carried by horses or other livestock when the
family is traveling to the next pasture. The entire family lives in the ger along with being covered with their furniture and other household items. The gers are made to protect against the extreme weather of Mongolia's winter.

2.3 Mining in Mongolia

The Mongolian mining sector is a huge employer of local populations around the mining sites. Due to this the mining companies have a major influence of local policies. The provinces do not want the mining companies to stop working because it will lower employment in the region and the local population will most likely move to another area where there are jobs. This is because many former nomads move to these mining cities that pop up around a mining site to prove housing for the workers. The former nomads move to these cities to find potential jobs at the mines or through the service sector providing for the miners. Many of these people left their nomadic lifestyles for economic reasons as well as to find a better life for their families. Unfortunately, many of the mining companies prefer to hire workers from outside the local areas, most notably Ulaanbaatar and sometimes from Darkhan, Erdenet, or also China and Russia (World Bank, 2006: 21). The companies hire because it lowers the chance for an emergence of local networks revolving around the mines, ensures better discipline and work ethics (World Bank, 2006: 21). “Rural people see the placer mines as being destructive of nature, grazing, and winter shelters and contributing little to the local economy” (World Bank, 2006: 21). The nomads and other rural populations see the companies as coming to take their land and see how the land gets destroyed when the mining companies move into the area. They would rather their lives as they have for many decades, rather than have the mines open up and see their pasture lands become craters in the ground with black smoke covering the blue sky.

With the creation of some of the larger mines in sometimes more remote areas, now towns and small cities are built for the mine employees. The creation of these towns or the creation of a new mine in a town the local population of the town will enlarge as people move to the towns looking for employment. These towns most the most part become largely dependent on the economic output of the mine (World Bank, 2006: 21). The towns need to have a diversified economy to avoid the “roller coaster of commodity prices and sharp economic decline” (World Bank, 2006: 21). The mining towns create the need for a large about of jobs in the service sector to provide of the mine employees. With the influx of new people moving to the towns there is the chance of improving the infrastructure which may allow new industries to be formed thanks to the technical skills of professionals that move to the

2.4 Oyu Tolgoi Mine

The Oyu Tolgoi mine is located in southern Mongolia. The Oyu Tolgoi mine is majority owned and operated by a British-Australian company called Rio Tinto. Oyu Tolgoi is expected to produce up to one third of Mongolia's total GDP (Baker, 2013). If just one mine can be one third of the country's GDP then that shows how important mines are to the country. That shows how important these mines are to the Mongolian economy in relation to the rest of the economy.

Oyu Tolgoi is the largest employers in Mongolia, so the fact that the Mongolian government will do try and do anything that may hinder the expansion of the mine or slow down production is very unlikely (Schneider, 2013). Oyu Tolgoi is located in the South Gobi region of Mongolia in the Ömnögovi aimag. This places the mine at a very great location for exportation of minerals to China which is only 80km north of the Mongolian-Chinese borderer. In relation, the mine is approximately 550km south of Mongolia's capital Ulaanbaatar (Oyu Tolgoi, 2014). The mine is also expected to be the largest gold and copper mine in the world when complete (Myadar, 2009: 198). While the mine is located in the Gobi desert the mine requires an enormous use of water to remain in use which will put the mine at odds with the nomads and other local groups in the region.

Oyu Tolgoi has a large influence on the local population in Ömnögovi both economically and culturally as the mine brings jobs and money to the aimag. The mine brings with it the need for services for the company and the employees alike, which gives opportunities to the locals to earn extra income. While the local nomads move to near the mine to try and find employment, it is difficult as the Rio Tinto hires most of the employees from Ulaanbaatar or other cities in Mongolia.

2.5 Urban Attraction

Many nomads at the end of the Soviet Era moved from the rural countryside to the urban centers, mainly the capital Ulaanbaatar (Bruun, 2006b: 162). These nomads moved to the cities in search of education, better economic opportunities or because they had lost their livestock to a dzud or an other disaster. (Bruun, 2006b: 176). Many nomadic and rural families move to the cities in order to provide their children with a better education. This is to allow their children to have better opportunities with finding jobs so they do not have to live a harder life and work in the pastures where there is an unstable income. As well as the education helping the nomad's children to have a better
chance at a more stable income, the order generations move to the cities to find a stable income to provide for their families. This allows the families to have a more steady life style, without having to worry about having enough to money to live on day by day. Those that move to the cities in search of better income can be moving because of losing their livestock or because herding was no longer economically viable for the family to continue. There are also households that have been splitting their income between two sources. Part of the household continues to live as nomads while other members move to the sum centers or other cities to find more formal jobs (Bruun, 2006b: 175)

During the transition from a socialist government to a democratic one the rural institutions and infrastructure broke down, so aside form a few spots in the countryside the nomads had to go to a city in order to buy and sell their goods. The privatization of the negdel system broke up the collectives and those that gained the most from the splitting up of the system moved to the cities with their new found wealth. A lot of the machinery and tools that were in the negdels were sold by people or taken away. The infrastructure and the tools needed to work were no longer around for use by the nomads. This leads to people moving to the cities in order to find new jobs now that their stable income was no longer around (Bruun, 2006b: 168). For moving to a urban center it is becoming common for the nomads to slowly start moving their family to the cities starting with sending their children to study and work. Then when the children are established in the city the rest of the household will gradually move from the rural countryside to the city (Bruun, 2006b: 180). This allows the family to be able to continue to earn an income while the family that moves last to get used to their new surroundings and the way of life in the city.

2.6 Mongolian government

In 1992 the Mongolian government transitioned from a one party system to a multi-party system. The President of Mongolia is directly voted into office by the people while the Prime Minister is elected through the Parliament. If the ruling party does not gain a majority of seats in the parliament, the party has to for a coalition government with other parties. This means that the policies are not in complete favor of one party's ideals but it is agreed upon by multiple parties therefore in theory it is supported by the majority of the Mongolian population. I say this is in theory because Mongolia, being a fairly new democratic country, there have been claims of corruption on multiple levels in the government. If there is corruption then there is the chance that the policies and laws are more supported of companies and corporations rather then the people who elected the officials to vote on their views.
In 2006 the Mongolian parliament passed a law that gives the government a thirty-four percent stake of any important mining operation (Oyu, 2014). The reasoning for this law is to give the government an extra revenue source that will be able to help with the further reforms the country is in need of, as well as to make sure that not all of the wealth of the mines leave the country.

2.7 Land and Mining Policies in Mongolia

Currently the Mongolian government has allowed up to 90,000 sq. km to be explored for mining usage (Myadar, 2009: 198). Most of this land is located in the south and south-east of the country. The local nomads and environmental groups have been pushing for the mining to be stopped and re-evaluated due to the mines being water intensive in a water scarce area. The nomads have been claiming that the water from the wells that they use have been drying up due to the mines taking all the water (Centre, 2015). Another large problem with the lands that the nomads are having problems with are the fencing off of traditional pastureland and paths to different pastures which were previously available to them. (Centre, 2015). Eco-tourism is a large business in Mongolia that only relies on the Mongolian landscape to be kept clean and to look untouched. If the mines start taking all of the water from the wells not only will the nomads and their herds have to move on but the local flora and fauna will die and move away. This will hurt the local tourism businesses that draw people from all over the world who want to see the nomadic peoples and their herds, as well as, the landscape.

Along with the Mongolian government taking a thirty-four percent share in the mines, a number of joint ventures between multiple companies invest in the same mine, so as to protect themselves from any potential risks that may appear. Due to Mongolia being extremely focused on the mining sector the government is being slow to invest in other sectors like the traditional agricultural sector where a large portion of the Mongolian population is still employed.

The Mongolian government has the right to give land for private ownership but only to Mongolian citizens (Myadar, 2009: 181). The land available for privatization does not include pastures and other public or special use lands, such as national parks. The size of the land plot that a household is allowed to receive from the government depends on where the household is located. In Ulaanbaatar the size of the plot is significantly smaller then that of in a aimag or sum due to the large population and requests for land (Myadar, 2009: 182-183).

3. Theoretical Framework
There are three theories and concepts that were used to conduct this study, they are world-systems theory, the concept of resource curse, and labor market segmentation theory. World-systems theory and resource curse are being used to see if Mongolia is focusing too much into resource extraction for the reason of exportation. Focusing too much into the extraction and exportation of raw materials along with the reinvestment of the income into this sector does little in the way to help the country diversify its economy and pushes the country too heavily on the reliance of these materials. Labor market segmentation theory was used to analyze how the mining industry was affecting the nomadic migration and the pressure of the Mongolian government and mining companies to move to the urban centers.

3.1 World-Systems Theory

World-system is the transnational division of labor that categorizes the world into core, semi-periphery, and periphery countries (Mishra, 2013: 164). This is a highly capitalistic way of looking at the world, where it does not consider countries economies individually but rather as one world economy. Core nations import raw materials from the semi-periphery and periphery nations and export finished goods of higher value (Mishra, 2013: 164). This makes it hard for non-core nations to get out of a potential resource curse, where they are stuck focusing on the exportation of raw materials as the main source of income to supply the core nations rather than diversifying their economies. In the case of Mongolia this is a highly possibility but this will be touched about later in this study. This ensures that the core nations will continue to maintain dominance in the world economy and politics.

Core nations focus on diverse high-skill and capital-intensive industries to fuel their economies while exporting their goods to the world market. Most core nations are located in North America and Europe. These nations have strong governments and militaries to back up their economies and policies thus allowing them to exert their influence on other countries (Mishra, 2013: 164). These nations are also highly industrialized with focusing on the exportation of manufactured goods rather then on the exportation of raw materials. The core nations also exert their influence over the non-core nations in order to get favorable trading to open their markets. A good example of this was during the colonial era during the 19th and 20th century, while the European countries were racing for colonies in order to fuel their need for raw materials and to expand their consumer base. The European countries competed with each other in order to expand their economies and to become the dominant world power, which they did by asserting their dominance over production, trade, finance, and military strength. Japan also
followed this same route although at a later date, with their expansion into mostly Korea, Southeast Asia, as well as the Manchu empire which at controlled area which makes up modern day Mongolia.

Periphery nations focus on extraction of raw materials for exportation to the core nations, these nations historically are found outside of Europe, in Latin America and Africa for example (Mishra, 2013: 164). At the current time all countries export some form of manufactured good but not to the same extent of the core and semi-peripheral nations. The peripheral nations while having a little bit of manufacturing still rely heavily on the exportation of raw materials to drive their economies. These nations are not very diverse when it comes to their economies, many base their economies around the exportation of raw materials like oil, coal, or agricultural goods. Their economies are based around these raw materials to fuel the needs of the core nations which for the better part have gone away from the extraction of raw materials into production of finished goods. Mongolia has some industry left over from the Soviet era but not enough to make a significant portion of the economy. The country is relying heavily on the exportation of raw minerals and agricultural products. The periphery nations tend to have relatively weak governments and institutions and to be lacking in industrialization. In the case of Mongolia, the change of political and economic stand points to a market-based economy from the Soviet based economic model, has weakened the government as they have not been able to fully implement new institutions to take the place of the collapsed Soviet government’s institutions. The periphery countries tend to have weaker governments or were under the control of other countries as exemplified by the colonial era (Mishra, 2013: 164). Many multination companies invest into these countries to exploit the cheap labor and raw materials so as to increase profits rather then paying a higher salary price back in the core nations (Mishra, 2013: 164). There also tends to be a large number of uneducated and poor people in these nations and where the highly educated are more likely to emigrate to a core or semi-periphery nation where there are better economic opportunities. A good portioned amount of educated and skilled Mongolians have left the country for China, Russia, and European countries to find better employment then within their home country.

Semi-periphery countries are either countries that were once core nations or periphery nations trying to get to core status. These countries tend to have conflicts between a stronger central government and strong local groups (Mishra, 2013: 165). They export their goods more to the peripheral nations and import from core nations. These nations employ protectionist policies more aggressively than the other two types of nations. This is to protect their diversifying economies from being undermined by the core nations. These nations remain under the influence of core nations but
also start to exert their influence among the peripheral nations as to expand their own market for their finished goods as the core nations do not have as much a need for manufacture goods. The most notable semi-peripheral nations currently are China, India, Brazil, South Korea, and South Africa. These countries have employed different strategies with which to grow their economies. China for example had a combination of protectionist policies to support fledgling industries as well as having mass cheap employment due to the size of the population. While South Korea on the other hand opted to focus on protectionist policies and reinvestment in the different industry sectors. The Mongolian government has been trying to get into the semi-peripheral status but the government has been reinvesting the income from the mines mainly back into the mining industry so there is little incentive to expand the industrial diversity. These nations have shown considerable growth, all while protecting their new industries in order to compete with the core nations on the manufactured goods market.

The main difference between the core, periphery and semi-periphery nations is the bureaucracy and the strength of the government, as well as the exportation of goods. If the country is importing raw materials and exporting manufactured goods it is more likely to be a core or semi-peripheral nation. While if a country is almost completely focused solely on the exportation of raw materials then the country is a periphery nation, in the case of this study Mongolia.

3.2 Resource Curse

Mongolia's large amount of untapped natural resources specifically coal and copper can have huge positive effects on the country but at the same time focusing heavily on mining and foreign investments into the mining sector could lead towards Mongolia falling into a resource curse. As suggested by Ebrahim-zadeh (2003) “although the disease is generally associated with a natural resource discovery, it can occur from any development that results in a large inflow of foreign currency, including a sharp surge in natural resource prices, foreign assistance, and foreign direct investment.” With the government and economy focused on these natural resources the investment and help for other sectors will not grow or may even drop in support in order to increase the growth in the mining sector. The Mongolian economy is already experiencing a large amount of the country's GDP is coming from the mining sector (Lovgren, 2008). Foreign investors are investing in Mongolia due to the huge economic opportunities that lay open for the mining companies to take advantage of. With Mongolia hungry for money the government seems happy to have mining companies and foreign investors coming into the country to do business. Mongolia needs to use the income generated from the mines to

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help support new and more traditional industries for example cashmere textiles and the eco-tourism industry.

3.3 Labor Market Segmentation Theory

“We define labor market segmentation as the historical process whereby political-economic forces encourage the division of the labor market into separate submarkets, or segments, distinguished by different labor market characteristics and behavioral rules” (Reich et al, 1973: 359). In the case of Mongolia the division of the submarkets it makes it difficult for the nomads that move to the urban centers and mines to get jobs. As stated previously in this study, mining companies prefer to hire workers from the cities rather than from among the nomadic and local populations. This is partially due to the locals having a connection to the land while those from other cities do not. But it is also because the workers coming from the cities generally have a better set of skills that the mines and other companies are looking for rather than the nomads who are skilled only in working with livestock. The nomads livelihoods depend on their skills relating to livestock herding and management, with there focus on other skills unrelated to this are lower on their life skills. The mining companies can be considered part of the primary market where the jobs are generally quite stable, have a higher wage and also require a higher skill set (Reich et al, 1973: 359). This allows mainly just for those people in Mongolia who were educated in a urban center to have the necessary skills and accessibility to retain a job in this market. The secondary market jobs are much less stable and have a higher turnover rate than the primary market jobs. Along with this the employees have a lower wage and there are less chances to work their way up in the job place (Reich et al, 1973: 359-360). The primary jobs encourage discipline and responsiveness to the rules that are set down for the work by those in higher authority (Reich et al, 1973: 360). Factories and office jobs are an example of a primary job.

In the market segmentation there is also the segmentation of jobs by sex. Whereas men have a much broader range of jobs they are allowed and expected to have, women are encouraged to work at jobs that have a “serving”orientation (Reich et al, 1973: 360). Women tend to have lower wages than their male counterparts and have their community telling them they need to work at jobs that service others rather than to work at a more “male” oriented job. Part of the labor market segmentation is to have the division of workers into different groups, so as to enforce the inequalities between the groups (Reich et al, 1973: 364). By having different labor groups that will encourage more of those in the lower tier to try and acclimate into a higher tier so as to get higher wages and more job opportunities.
The segmentation of the labor market has forced the nomads and other Mongolian people to have to migrate and how and where they live in order to find employment. The nomads livelihoods of living off the land and relying on herding for generations is being forced to change and adopt a more “modern” lives. With the preference for employees from cities by the mining companies, nomads are sending their children and family members to study and live in cities in order to get a better education as well as to have better chances are finding stable employment. The skills that nomads learn living in the countryside are of little use to businesses in the city as they are not related to the caring to livestock but to working in offices, stores, or working machinery.

4. Methodology

This study uses secondary sources for the collection of data. These sources being gathered from book, articles, news articles, relevant journals, and studies by the World Bank. Many of the sources for this study were written in the early 2000's during the transformation of Mongolia from a socialist state to a democratic state. “It is possible that a secondary analysis will allow a researcher to mine data that were not examined by the primary investigator or that new interpretations may be possible” (Bryman 2008: 561). By collecting data from many primary sources I will have data that may not have been collected by individual study. The use of data collection through the use of secondary sourcing, it will allow the collection of data through the use of different sources and not on the reliance of data collecting in the field. The sources that are used in this study may contain a western bias towards the subject, in this case Mongolia's mining companies and nomads. The western bias in this case being that the majority of scholars and organizations conducting relevant studies are concentrated in the West and have tendencies to project western ideas onto subjects. This is due to the majority of the sources being conducted by western scholars or western organizations. The use of secondary sources was due to limitations for travel to Mongolia for primary data gathering. Due to that limitation it became necessary to use secondary sources to gather the data necessary for this study. As stated in Bryman (2008: 296) “it is worth giving serious consideration to doing a secondary analysis, because it will allow you to spend more time on the analysis and interpretation of data.”

The collection of data on the Mongolian nomads to get information on their lifestyles and their economic and social situation were the first types of sources that were searched for. It was important to get background information on the nomads to understand how they have adapted their lifestyles from during the Soviet Era to the present as the people and the country of Mongolia have had a drastic
change within a few decades. The second type of sources that I focused on were those pertaining to mining in Mongolia and how it was affecting the country in general, that includes the benefits and downsides to the economic and social aspects. The use of this knowledge would help with seeing what the effects of mining was having on the Mongolian nomadic community and how the two different industries interact with each other. The last types of sources that were collected were from the World Bank and from the media to see the perspectives of what was happening from the field by people who live and operate within the country permanently rather than on a temporary basis. By having sources from local media there was information that became available that was not shown through the other sources that were used in this study as well as the media having regular updates on the mines and the nomads.

The data collected through the sources will be analyzed using world-systems theory, labor market segmentation theory, and the concept of resource curse. These three theories and concepts will allow the data to show if the reliance on the exportation of raw materials from the mining sector are having negative impacts on the Mongolian nomads and to what extent is that impact affecting their migration patterns. World-systems theory will help to show if Mongolia is in the transition to a more diversified economy and becoming a semi-peripheral nation or if it is stuck in the role of focusing solely on raw materials for exportation and the importation of manufactured goods from the countries it sells the materials to. This same process will also show if Mongolia is on it's way to fall into the resource curse or if it has already stepped into that spot and is only at the top of the iceberg. Labor market segmentation theory will help to explain the preference for employment of urban residents to that of the local rural population based on skill, education, and culture.

5. Analysis

5.1 Social Consequences

The focus on the mining industry with the knowledge of the problems it has been causing for the nomads has the mining industry affecting a large part of the traditional agricultural sector. Mongolia is falling into the resource curse trap with focusing a lot of it's attention on supporting and expanding the mining sites within the country. The few investments made into the infrastructure outside the capital, Ulaanbaatar, are related to the mines in order to better the accessibility of transportation of the raw materials from the mining sites. Mining companies are expanding their extraction of minerals from
the land and therefore taking up more land that was previously being used by nomads and other local Mongolians. The nomads and other rural people living around the mines see the “placer mines as being destructive of nature, grazing, and winter shelters and contributing little to the local economy” (World Bank, 2006: 21). The mining companies know that the nomads and other rural people have negative opinions about the mines and how it is affecting the people but they continue to stay and operate in these areas World Bank, 2006: 21).

In many regards nomadism has been romanticized by the government, with many tourism camps employing nomads to be dressed up and act stereotypically for tourism (Myadar, 2009: 169). Real “pure” nomadism is starting to fade out and become more fictional then real as land which is supposed to be free-roaming is being fenced in and access restricted (Myadar, 2009: 170). The central and local governments have been trying to privatize the lands to sell and rent to different companies and individual people. By restricting the land accessibility it makes it easier for mining companies to move in and set up operations but this can also be a use to try and make the nomads move to cities or to become sedentary in one location rather then moving from pasture to pasture. The fencing off of land has started to take it's toll on the nomads who live on the land by making them have to find new pastures that they are able to live on, find secondary employment to rent out land, or to move entirely to a city and give up the nomadic life. After the collapse of the negdels, pastureland was no longer regulated by a organization. Land claims around water sources and the best grazing land became a system of “survival of the fittest” where those that get the land around these sites tend to be better off then the others (Myadar, 2009: 174). This system of a free for all turned the nomads against each other for competing for land and resources rather than helping each other which they had been doing since the establishment of the negdels.

Some nomads which are not able to continue with working with livestock because it is not economically stable for them or they want a different way of live, notably the younger generation that has had little to do with living as nomads before the negdels. Some set up businesses near major roads to try and generate a more steady income that to just rely on herding (Myadar, 2009: 176). These former nomads are looking for alternate sources of income due to livestock herding being very little more then subsistence living.

5.2 Environmental Consequences

The mining companies in Mongolia have caused land degradation, water deterioration, and
environmental pollution which affect those closest to these mines with are rural communities and nomads that are competing with the mining companies for land and water usage (Myadar, 2009: 197).

Mining machines and operations require large amounts of water in order to keep the equipment running without overheating or other complications. The mining practices currently being used in Mongolia are inefficient and use large amounts of water (World Bank, 2006: 1). With the Oyu Tolgoi and other large mines located in the Gobi desert, they are competing for water which is an extremely precious resource in the arid region. Mongolia is currently experiencing desertification through global warming and overgrazing but the large amount of water use by the mines are helping to speed this progress up even more then necessary (Myadar, 2009: 198). Nomadic and local environmental groups are complaining to the local governments about water becoming scarcer then it already is. There have been some claims that wells used by the nomads have been contaminated or have been drained at a much faster rate then previously recorded. The blame for the water disappearing has been pushed onto the mining companies. There are also the complaints that the waste water from the mines are mixing with the fresh water and contaminating the little water that is in the region available to the nomads and other local populations. Mines use high-pressure water to help extract minerals from the ground which then the water may run off into rivers or other bodies of water therefor contaminating the fresh water (Myadar, 2009: 197). This would then be a problem for the nomads and their livestock as they rely on the local bodies of water to sustain themselves. The Onggii River used to stretch 475 kilometers but after mining companies moved into the Onggii River Basin in 1993 the river has dried up and currently only stretches for roughly 96 kilometers (Myadar, 2009: 198). The disappearance of a significant proportion of the river forced many families to move in order to find new land for which to live on (Myadar, 2009: 198). The appearance of the mining companies using large amounts of the river didn't allow the excess water of the river to continue to run it's course but instead was used up entirely by the companies thereby denying access to water for the local nomads.

In addition to the consumption of large amounts of water the mines leave physical scars on the land which will remain there. These means that even when the life of the mine comes to an end the remains of the hole and tunnels will stay in the ground. The land will then be unusable by the nomads that could have potentially used it for pastureland. The mining companies fence in the lands that they are using or claim to be using so as to not allow the nomads to travel through (Schneider, 2013). This causes problems for the nomads whose traditional travel routes are blocked and they are forced to change directions. This is a problem not just for taking longer to travel from one pasture to the next but
also for the necessary wells that the nomads need to use for themselves and their livestock.

The pollution from the mines and from the burning of coal in particular have made Mongolian cities, most notably Ulaanbaatar, extremely smog covered (Dettoni, 2014). Due to Mongolia having a huge amount of coal the main energy source in Mongolia is coal. In winter about half of Ulaanbaatar's population use between 30-50 kilo of coal a day to warm their gers which adds up to approximately one million tons every year (Dettoni, 2014).

5.3 Two Way Migration

The 1990's saw the Mongolian economy in a terrible situation with the collapse of government run industries and negdels in the countryside. Many urban families experienced rising living costs, rising unemployment and the breakdown of the government services that were previously around to support them like education and health facilities. The rural families had to deal with the rising food prices, transportation prices and other problems with the breakdown of the negdels. The economic turmoil saw many urban families move out of their apartments and other buildings and moving into gers. There was also a good number of urban households that returned to pastoralism in favor of staying in the urban centers. With the collapse of the state run industries and the better part of the public sector, many urban families moved back to the steppes to live as nomads again as there were no more collectives running the agricultural sector. At this time the skills that Mongolians learned would influence where they were to be able to work in the labor market. As many nomads are finding now it is harder for them to find employment due to the lack of necessary skills that are required.

On the other hand of this trend while many of the Mongolian cities saw declining populations, Ulaanbaatar saw a rising number of migrants to the capital city. Many of these were nomads and other rural people that had lost their livelihoods with the collapse of the negdel system. Nomads are starting to settle near markets and majors roads. By moving closer to cities and markets nomads are able to sell their products like animal skins, meat etc without having to travel long distances which saves time and money from transporting (Myadar, 2009: 176). Accessibility to secondary employment, education, and better access to health care are some other benefits that the nomads get when they move closer to urban centers (Myadar, 2009: 176). These people for the better part stayed living in their gers around the city, these ger districts now house roughly 60 percent of the 1.2 million people who live in Ulaanbaatar. (Belt, 2011). One reason for the increase of Ulaanbaatar's population could be a sense of greater chance of employment compared to smaller cities and towns where after the fall of the Soviet government
many of the jobs that employed the local people went out of business as the wealthy moved to Ulaanbaatar and the rest were stuck with going back to herding or other smaller economic jobs. The mining companies and jobs in cities can be a valuable aspect to diversify a nomads livelihood. This is seen around the cities that have appeared around the mining locations (World Bank, 2006: 20). The mining companies and other urban jobs require skills that many nomads are unlikely to possess and this is due to the segmentation of the labor. The income generated from these mines rarely make it to the rural people but stay within the mining city or more likely make its way back to Ulaanbaatar before leaving the country. This does little to help the nomads and local people as they see very little of the money that is being generated through the destruction of their environment.

5.4 Illegal Miners

In Mongolia aside from the mining companies there are illegal miners which are called “ninja miners” (The Mongolia Mining Journal, 2013), these tend to be nomads who have given up on the nomadic lifestyle and moved onto digging up remaining minerals around mines. These miners are illegally digging holes without the government's permission. In the 90's a the Mongolian transition to a command economy to a market economy there were a large amount of unemployed workers. “Lacking marketable skills or job opportunities, during the 1997-99 period an estimated 20,000 turned to informal mining as a cash-earning survival strategy” (World Bank, 2006: 21). In the winter of 2001-2002 there was a widespread dzud which killed off thousands of nomadic households livestock. This left few options for the people to either leave for the cities or to work as informal miners. Due to the dangers of overgrazing, desertification, and dzuds many informal miners prefer to works in the mines rather and have a daily income rather then having to worry about a sudden loss of income and livelihood (World Bank, 2006: 23). The nomads can see how the economy has been shifting from the focus on agricultural goods promoted by the government to the new democratic government focusing on the exportation of raw minerals from mines. The nomads and other Mongolians see this as where they stand a chance to further their families living by trying to get into the mining industry and mining minerals to sell which earns them more money.

5.5 Eco-tourism

In recent years Mongolia has seen a large number of tourists coming to the country to experience the nomadic lifestyle and to see the mostly undisturbed steppes. Mongolia has had a large
increase of tourists coming to the country with an increase of 15 to 20 percent between the years of 2002 and 2006 (Myadar, 2009: 192). This boom in eco-tourism has benefited some nomadic families that have been able to capitalize on this new industry. Most of the eco-tourism sites in Mongolia are in protected areas and other cultural sites (Balt et al, 2012: 18). Currently there is not a defined framework of how tourism is evaluated and monitored, this allows many tourist services to set their own guidelines which often do not include the inclusion of the local nomads and other groups (Balt, 2012: 18). This does little to help the nomads to help in an organized system of tourism rather then trying to find work in a disorganized system where one season a household may work at one tourist site and the next find the working conditions and guidelines are completely different regardless of the location of the sites.

During the summer months when the majority of tourists come to Mongolia, the nomads are able to supplement their income by hosting families and working at summer camps in and around national parks as well as a few other locations. As well as the semi-permanent nomads that move around the tourist sites there are also a number of nomads that are moving permanently around these tourist sites to try and get extra income from tourists that want to have a “traditional” nomadic experience. Some of these experiences may be having photos of the nomads in their traditional clothing, horseback riding, Mongolian food and drinks (Myadar, 2009: 176). Besides the more “traditional” experiences that tourists visit Mongolia for they also are attracted to the country by the historical sites, cultural events such as horse racing and Mongolian wrestling (Sumo wrestling?), the natural beauty of the landscape, and in the Gobi desert the sand dunes (Balt, 2012: 23). Many of these eco-tourism sites are on government controlled land with a limited number of sites open for tourists. The nomads move to the surrounding areas of these sites and work as store clerks, manual labor, tour guides etc. While part of the nomadic households work at these seasonal jobs the rest of the household continues to work with their livestock so that the seasonal jobs supplement their income but do not become their main income source.

With Mongolians starting to expand the eco-tourism and normal tourism industries there may be a way in order for Mongolia to avoid falling into a resource curse. By expanding the jobs and opportunities that are available for nomads and other Mongolians the country may be able to develop eco-tourism into a major part of the country's economy. If the land gets scared beyond saving, the country and people of Mongolia will have lost out on great sustainable source of income, rather then a income source that remains for half a century and disappears once the land produces no more minerals. This may also allow the country to find a new way to move out of the “peripheral” nation status into
the status of “semi-peripheral” as it will be hard for the small population country to compete with the
manufacturing industries in China and Southeast Asia. By attracting tourists Mongolia may be able to
pick up on the increased interest of many tourists that want to experience unique cultures and lands that
are undamaged by “modernity.”

6. Discussion and Conclusion

6.1 Discussion

Mongolia is a country with a rich history that has been invested into preserving the steppes on
which the nomads live. During the 20th and early 21st century the Mongolian government started to
emphasize urban living to that of living in the rural countryside. This preference for the urban centers
has brought many thousands of Mongolians to the cities to find jobs and education to further support
their families. Through the segmentation of the labor market the need for nomads to re-educate
themselves as well as their children to possess the skills necessary for work in the cities, they need to
live in a closer proximity to a city. The best education sites within the country are located in
Ulaanbaatar and some of the other larger cities. With younger Mongolians moving to the larger cities to
study, there they acclimate to the new way of life and have a higher chance of staying in the cities
rather then moving back to their families outside the cities. By having the younger family members
remaining in the cities with more stable sources of income the rest of the family is more likely to give
up their lives in the countryside to move in with their family in the cities. At the same time many
families are being forced to forgo living as nomads from loss of pastureland and loss of livestock.
While the loss of livestock is mainly due to the dzuds that hit the country there is little to no support for
the nomads in the case of their herds disappearing after winter. That as well as the loss of land being
taking over by the mining corporations are making the nomadic households have to move to the cities
in order to find jobs to support themselves and their families.

The Mongolian government believes that the heavy reliance on raw material exportation will
help to build up the Mongolian economy. This way of thinking is bringing the Mongolian economy to
focus too heavily on the minerals such as coal, gold, and copper without spending enough investment
into diversifying their industry, which may bring Mongolia the cycle of a resource curse. While the
exportation of raw materials bring in money to fuel the economy, the government continues to heavily
invest the income from mining back into the mining sector and little of the money is invested into other
industries to help diversify the economy. Mongolia is trying to modernize their economy through the exportation of raw minerals but though the focusing on this they are setting themselves as stay as a developing country. As world-systems theory talked about the core nations having a manufacturing goods which were sold to the raw material producing countries, Mongolia is trying to become a core nation but doing very little in the way of focusing on the increasing the manufacturing industry.

6.2 Conclusion

While there is the possibility to focus on specific regions within Mongolia to see the exact impact mining and urbanization has on the nomads in those regions, this study was conducted to present information on a more general overview of impact within the country as a whole. With the large mining companies in the Gobi desert the impact of water disappearance is more important to the nomads in that region of Mongolia whereas the mass migration of nomads to Ulaanbaatar is a more pressing issue in northern Mongolia. This study was not conducted in order to present solutions to the problems presented in this thesis but in order to bring to light the problems that are occurring in Mongolia. While this study has presented many problems with the expansion of the Mongolian mining industry and the rapid urbanization of the country this by no means that there have not been any benefits from the expansion of mining and urbanization. These benefits being the modernizing of cities, increasing income, jobs, and increasing the living standards for some Mongolians.

The nomads of Mongolia are being presented with many problems related to the expansion of the mining industry. The nomads and mining companies are competing with each other for the same resources in the way of land and water. The nomads need the land and water to sustain their herds and livelihoods, while the mining companies are in the search for more land to expand their extraction sites as well as the need for large quantities of water to perform the mining operations. The mass urbanization of the country can show some problems that may be related to the nomads as many of those that are migrating to the cities. Some of these problems can be city infrastructure is unable to keep up at the same pace of growth as well as healthcare and educational facilities are overburdened with the amount of new city residents. Those that migrate to the cities for the most part keep the majority of their culture and traditions; which is seen in many Mongolian cities where on the outskirts of the city centers the nomads that moved to the city remain living in gers and keep some of their livestocks rather then moving into apartment buildings or more modern homes.

Between the environmental problems that are occurring through the expansion of mining sites
in the country and the mass urbanization of cities, namely Ulaanbaatar, it is clear that many nomads are moving and giving up the nomadic lifestyle for city life against their wishes. Currently Mongolia is heading in the direction of falling into a resource curse and unless they are unable to diversify and lessen the amount of reliance on the mining industry then the country may find itself in a bad economic situation. The massive urbanization while maybe beneficial in the long run of the Mongolian economy and development currently is benefiting the nation as many of the nomads who move to the country are contributing through the expanding of the economy rather then working informally and without stable jobs. And with the segmentation of the labor market it will be hard for many of those nomads, especially those that are older, to join the formal job market as they do not contain many of the skills that are being looked for.

As stated in the beginning of this study if Mongolians want to become more integrated into the world parts of their culture such as nomadism will surely disappear. If they want to continue their lives as they have done for hundreds of years they will become mere attractions for tourists to the country and treated as if they were on a reservation rather then a country with diverse economy and culture.

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