

**A thesis submitted to the Department of Environmental Sciences and Policy of
Central European University in part fulfilment of the
Degree of Master of Science**

**Rethinking Grassland Policies:
The Case of Environmental Justice of Tibetan Nomads**

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July, 2014

Budapest

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ABSTRACT OF THESIS submitted by: Tenzin,
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for the degree of Master of Science and entitled: Rethinking Grassland Policies: The Case of
Environmental Justice of Tibetan Nomads.

Month and Year of submission: July, 2014.

Tibetan Nomads residing on different types of grassland stretched across the Tibetan plateau have changed profoundly in their socio-cultural, economic and ecological sustenance in the last fifty years under the introduction of numerous development oriented policies. The success and failure of these policy initiatives have been of varying degrees depending on the specific geographic attributes of the grasslands. However the overall status of the grasslands deteriorated, while the traditional practice of nomadic pastoralism is disappearing gradually. Restoring nomadic pastoralism becomes an important function for grassland conservation. Under the Grassland law, various grassland policies were orchestrated to restore grassland's health. However, the rationale of these proposed solutions need to ensure continuity of nomadic pastoralism. This research draws an interdisciplinary analysis to critically rethink some of the key grassland policies from an environmental justice context to produce recommendations in order to better achieve its stated goal of grassland conservation and restoration.

Keywords: Nomadic pastoralism, development, grassland law, environmental justice.

Acknowledgements

I would like to thank my supervisor, Professor Tamara Steger, who was very helpful throughout the process of my thesis research.

I am also grateful to the faculty and staff of the Department of Environmental Sciences and Policy of the Central European University, who enabled me with a general background that has helped give shape to this work.

Moreover, I would like to thank my family for their support, encouragement, and love. I would also like to thank my classmates and friends for their encouragement and support.

I would like to dedicate my thesis to the nomads in the grasslands of the Tibetan Plateau.

Table of Contents

Introduction	10
1 Literature Review	14
1.1 Grassland policies and Tibetan nomadic pastoralism	14
1.2 Environmental Justice	20
2 Research Questions and Methodology	24
2.1 Research Questions	24
2.2 Methodology	25
2.3 Gaps and Limitations.....	26
3 Timeline of Nomadic Pastoralism and Grassland Policies	28
3.1 History of Nomadic Pastoralism	28
3.2 Grassland Policy Framework	30
3.2.1 Colonial development.....	32
3.2.2 Collectivization	32
3.3.3 Grassland Law-1985 and 2003	33
3.3.4 Grassland Household Contract System	37
3.3.5 Ecological Construction Projects and Resettlement Policy.....	39
4 Analysis.....	41
4.1 Mao's march towards development	41
4.2 Peaceful Liberation- A road to development.....	43
4.3 Equity in distribution.....	44

4.4 Recognition	51
4.5 Participation and Inclusiveness	56
5 Conclusion and Recommendations	61
5.1 Conclusion.....	61
5.2 Recommendations	62
References:	64
Personal Communications:.....	68

List of Figures

Figure 1: Environmental Justice framework of David Schlosberg, Source: Schlosberg (2007)	
.....	24
Figure 2: Chapters of revised Grassland Law, Source: <i>Grassland Law</i> (2003).....	35
Figure 3: Different models of Household Contract Responsibility System, Source: Richard <i>et al.</i> (2006)	38

List of Tables

Table 1: Classification of Grasslands in Grassland Law, Source: <i>Grassland Law</i> (2003)	36
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List of Abbreviations

CCP Communist Party of China

HCRS Household Contract Responsibility System

ECPs Ecological Construction Projects

RP Resettlement Policy

PRC People's Republic of China

CTA Central Tibetan Administration

TAR Tibet Autonomous Region

Introduction

Tibet is stereotypically known across the world as a romantic geographic landscape surrounded by snow-capped mountain ranges. It is also known as the third pole of Earth, for being a home to over 100,000 square kilometers of glaciers (Yao *et al.* 2012). These glacier formed above an average altitude of 5,000 meters above sea level makes the environment highly sensitive (Zhao *et al.* 2006; Harrison *et al.* 1992). While snow-covered mountains are symbolic representation of Tibet's environment, so is its vast expanse of highland pastures or grasslands which cover approximately 1.5 million square kilometers (Yao *et al.* 2012). However, the grassland ecosystem of Tibet is unique due to the presence of permafrost and deeply frozen soil type which are formed in a continuous and discontinuous fashion (Yang *et al.* 2004). Tibetan grasslands can be broadly classified into four types, viz. alpine meadow, alpine steppe, alpine desert and temperate mountain meadow, each one evolved from its climate and grazing history (Sheehy *et al.* 2006). The high elevation and freezing climate had greatly influenced land use and adaptation strategies of the inhabitants. Nomadic pastoralism is one such way of livelihood that co-evolved with these factors.

Nomadic pastoralism is a traditional practice of more than thousands of years of history, where nomads and semi-nomads subsist and migrate seasonally with their livestock (Miller 2000; Goldstein and Beall 1990; DIIR 2007). The existence of such a long practice therefore questions the science behind its history. According to a research which attempted to trace the evolution of Tibetan grasslands, “the eastern Tibetan highlands created their own environment transforming forests and tall grassland into the present golf course-like pastures” (Miehe *et al.* 2009,130). It further proves that although deliberate stimulus such as fire might have been

caused by the pastoral nomads, the time scale of pastoral nomadism had been an extensive and gradual process where rearing different ungulates such as yak, dri (female yak), goat and sheep etc. helped in co-evolution of a symbiotic association between land-use pattern and livestock (Hu *et al.* 2008; Xu *et al.* 2008; Miede *et al.* 2009; Miller 1998). Therefore, degradation and restoration of the grassland ecosystem becomes an integral function of the continuity of Tibetan pastoral nomadism and vice-versa (Du 2012).

Since 1950s, in order to liberate the backward Tibetans, Communist Party of China brought changes to the traditional land use pattern of pastoral nomadism under a series of development policies. The Great Leap Forward campaign (1958-1961) launched by Mao Zedong to industrialize and collectivize the agricultural economy to boost economic prosperity led to grassland appropriation by Chinese armies from Tibet's eastern province Amdo to Shigatse, Central Tibet (Yeh 2003). The feudal system of Tibet, which was described as 'hell on earth' by CPC was then abolished. However, during the course of this campaign, waves of resistance sprung up which led to more brutal suppression. After the controversial signing of the 17-point agreement, 1951 and Tibetan National Uprising, March 10, 1959, the political and spiritual leader of Tibet fled to exile in India (Norbu 1979). While many Tibetans followed his trail for refuge, many more remained inside the occupied Tibet. The lay Tibetan population remained inside Tibet who were mostly farmers, semi-nomads and nomads, experienced collectivization until 1980s under which they were redistributed with livestock into communes to boost pastoral production (DIIR 2007). However, at the failure of the grasslands' productivity, the commune system disintegrated and new policies emerged followed by de-collectivization. All along the policies, the health of grassland deteriorated. The degrading grassland health was then attributed by Chinese State to irresponsible

overgrazing activities by nomads due which herd size increased (Miller 1999b). As a result Grassland Law of 1985 was formulated to protect and conserve grassland, which was later revised in 2003. To fulfil the goals of this law, development further branched out in different restoration actions, viz. Household Contract Responsibility System, Ecological Construction Projects and Resettlement Policy (Li *et al.* 2014)

These policies which had gradually evolved under different development oriented programs since 1959 need to ensure a sound scientific understanding in order to promote sustainability, conservation and restoration of degraded grassland. The radical changes from commune to household system within only fifty years raise questions of the underlying logic of policies and understanding of grassland science, as they become important moderator for the functioning of both grasslands and nomadic pastoralism. Therefore the policy frameworks for either grassland restoration or nomadic life should be critically scrutinized for the sustainable development of nomads.

At present, the Chinese State Policies maintain its view on overgrazing as being one of the main cause for grassland degradation (Gruschke 2012). However, emerging researches have now highly criticized the rationale guiding these policies (Li *et al.* 2014; Du 2012; Ptackova 2012; Richard *et al.* 2006). One of the biggest challenges to the nomadic pastoralism in Tibet is the role of politics on the grasslands. The struggle of the Tibetan Freedom movement on the international platform is generally seen as a political conundrum. There is a need to go beyond the current preoccupation with pre-1959 injustice in order to achieve environmental justice in its various forms. Yet still, by analyzing being mindful of history, environmental justice for

Tibetan nomads becomes a crucial factor to conserve grassland. Nomadic pastoralism is a complex network of livelihood where nomads' way of knowing and living is rooted with its livestock, culture, religion and politics. This research analyzes the underpinnings of the key grassland policies, and their strategies to devise enhanced solutions for the environmental justice of Tibetan nomads.

1 Literature Review

1.1 Grassland policies and Tibetan nomadic pastoralism

Nomadic pastoralism is practiced in different parts of the world- Africa, Iran, India, Hungary, Tibet, Afghanistan, Kazakhstan and other parts of Central Asia etc. Nomadic pastoralism is a way of living which is practiced across arid and semi-arid climate with animals characterized by constant mobility who are in search for forage and water (DIIR 2007). However, one of the fundamental difference that sets apart the Tibetan nomadic pastoralism from other nomads lies in the fact that their mobility is due to the freezing climate and not insufficiency of water supply (DIIR 2007). Yet still, the recurring stereotype about any pastoral nomad as being unscientific and unsustainable in their practices remain consistent throughout the world, due to which different policy initiatives are undertaken for scientific and sustainable management of the natural resources. Tibetan nomadic pastoralism is no exception to this generalization. These stereotypes have been researched by many natural and social scientists to analyze the existence of ecological knowledge behind nomadic pastoralism and causes for grassland degradation to understand the rationale behind grassland policies that have escalated since 1950s.

Most of the available literature about Tibetan pastoral nomadism has emerged as a result of implementation of grassland policies. The Chinese States' general reason about Tibetan nomads that necessitated development in the beginning of the circle around the notion that they are 'backward' and 'unscientific' in their ways of grassland governance due to which

overgrazing furthers herd size causing grassland degradation. (Information Office of the State Council of The People's Republic of China 1992). As a result, Chinese State policies introduced programs which aim for development of their backwardness to come on equal grounding with Chinese and restore "...social and political stability in the country" (Ptackova 2011). However, many scientists agree that these state policies are subject to question since its understanding of the grassland problem being based on misconceptions and incomplete introspection of the situation (Miller 1998; Xu *et al.* 2008; Harris 2010; Zhaoli *et al.* 2005).

In the literature available on the research conducted on grassland degradation and nomadic pastoralism so far by Chinese scientists, there is growing number of scientists who recognize the role and importance of nomadic pastoralism in the restoration of stability of the grassland ecosystem on the Tibetan plateau. The grassland degradation is seen not only as a problem of overgrazing and nomad's mismanagement. They take into account factors such as global warming, permafrost meltdown, mining and mismanagement of grassland by inconsistent policies (Du 2012; Xu *et al.* 2008; Shang and Long 2007). Furthermore, even amongst Chinese scholars there is irony in acknowledgement of the success of the implemented policies. Terms such as 'guaranty measures' are used by Zhanhuan and Ruijun (2007) by proposing education, longer grassland agreement and strengthened legislation and Wang *et. al* (2010) recommends technological solutions. Also, Gu *et al.* (2005) blames overgrazing as the main culprit. However, Li *et al.* (2014) and Xu *et al.* (2008) encourage the policy makers to recognize and include pastoral nomads' knowledge in solving grassland-use problems instead of creating one. Whereas Harris (2010) concludes that the cause for the grassland degradation is uncertain due to its biased and poor investigations. Almost all of the Chinese scholars rarely

bring up the term environmental justice in their research, although, what comprises it, are their recommendations.

In order to understand knowledge system of nomadic pastoralism, much research were conducted by different scientists based on first-hand experience on their field projects in Tibet (Ekvall 1983; Miller 1998, 1999, 2000; Goldstein and Beall 1991). Grasslands of Tibetan plateau span almost seventy percent of the total area of Tibet with an average elevation of 4000 to 5000, supporting growth of varying grass, wood and shrub species (DIIR 2007). The science behind nomadic pastoralism is described as an interdependent adaptation between man and animal (Ekvall 1983). It was found that their subsistent need were derived from yak and dri (female yak) using their dung for fuel, hair for weaving tents and milk, butter and cheese etc. for food (Rhode et al. 2007; Goldstein and Beall 1991). The nomads had great skills in stable construction of their tents; woven from yaks' tough hair to suit their need of warm shelter as well as frequent mobility (DIIR 2001). Wu and Sun (2010) found that beetles and flies play an important role in decomposing yaks' dung, thus helping the continuity of nutrient cycle in soil. Therefore, continuity of their mobility in order to survive their herds in the freezing climate becomes crucial in nutrient cycling of permafrost grassland soil.

However, on the emerging power of CCP into Tibet to bring economic development, traditional pastoral-economy's land use decisions changed under series of policies (Xu *et al.* 2008). These policies went through radical changes from commune to household model (HRW 2013; DIIR 2007). The response of grassland ecosystem under traditional nomadic pastoralism over the various types of grassland gradually degraded to different degrees. Most of the available research about pastoral-nomadism about its science and post-1959 policies'

results. However, there was no research produced by Chinese scientists on the analysis of Grassland Law of 1985 and 2003 which is the benchmark for all the branched out policies, projects and campaigns. Under this law, three major policies emerged to curb grassland degradation and achieve its restoration and conservation. They are Household Contract Responsibility System, Ecological Construction Projects and Resettlement policy (Li *et al.* 2014).

Yangzong (2006) found that the Household Contract Responsibility System holds a contradictory view which is based on Hardin theory of ‘Tragedy of the Commons’ that overgrazing activities of nomads’ herds were as a result of open access of their common grassland which, being irresponsible, led to grassland degradation. The traditional feudal system was not distributing any responsibility to nomads to achieve efficient grassland governance (Miller 1999b). However, Richard *et al.* (2006) and Cao *et al.* (2011) found that the Individual HCRS delivered paradoxical consequences from the policy’s objectives of grassland protection. Hence they recommended co-management strategies or multi-household type of HCRS model. Recently, a comprehensive research published by Li *et al.* (2014) poignantly criticized that the adverse results are due to fundamental misunderstanding of nomadic pastoralism and recommended conservation of knowledge of nomadic pastoralism. Similarly, wetland ecosystem being negatively affected under this privatization policy, Zhaoli and Ning (2005) strongly recommended increase local peoples’ awareness, participation and training.

Ecological Construction Projects were implemented in order to protect degraded grasslands. But grassland degradation and its repercussions were found to be not only limited to surface level; rangeland privatization conversely negatively affected wetland ecosystem (Zhaoli and Ning 2005). ECPs were implemented complementarily with Resettlement Policy (Jun 2014; Wang *et al.* 2014). The implications of these two policies have been researched in different parts of Tibet and many serious recommendations were outlined. The resettlement of nomads is also called as ecological migration (Du 2012; Wang *et al.* 2010). In Maqin and Zeku county, Qinghai province, and Huangyuan county, Sichuan province, resettlement process was found to lack consultation and official planning, leading to unemployment, uncertainty, while endangering traditional nomadic pastoralism (Ptackova 2012, 2011; Jun 2014; HRW 2013). In Madoi County, Qinghai province, resettlement and ban on grazing were found to have huge negative impact on both grassland and nomads, causing land fragmentation, unemployment and disturbance of grazing dynamics (Du 2012). The local nomads and officials attribute the problem as a result of global warming, intensive mining practices, and mismanagement of grassland, overgrazing and pika population outburst (Du 2012; Shang and Long 2007; Zhou *et al.* 2005). Foggin (2011) and Wang *et al.* (2011) stressed that while the State policies undoubtedly prioritized protection of environment, they have failed to recognize the importance of cultural stability which promotes enhance regional balance. However Wang *et al.* (2010) claims that problems of ‘voluntary’ environmental migration rest in lack of subsidies and difficult survival in urbanized villages, and therefore need of a system that integrates traditional and modern aspects of development were suggested. On the other hand a detailed literature analysis of research of Chinese government and Scientist conducted by Li *et al.* (2014), found that resettlement policy isolated the nomads and disconnected each other from their complex socio-ecological and cultural network. It recommended policy makers to

understand nomadic pastoralism clearly. Zhang *et al.* (2013) also suggested that the carrying capacity index surveyed by competent departments under Grassland Law should include a wide spectrum of sustainability criteria by taking into consideration different types of grassland.

In the international platform, call for justice and human rights for Tibetan nomads come from a New York based non-governmental organization called Human Rights Watch. In its report,

They say we should be grateful, resettlement was identified as ‘forced’ as opposed to ‘voluntary’ (HRW 2013; Wang *et al.* 2010). It was also reported that two million Tibetans, mostly nomads, have been resettled while 900,000 people were announced to be resettled by the end of 2014 (HRW 2013). Forced eviction of pastoral nomads from their ancestral land brings an end to their subsistence livelihood and right to food, thereby not complying with the agreements ratified by China to uphold International Covenant on Economic, Social, and Cultural Rights in not infringing upon any individual’s right to any subsistence techniques and of Convention of Biological Diversity Article8(j) to support traditional knowledge of indigenous communities in promoting sustainable use of natural resources (Schutter 2012). Furthermore, Collins (2014, 1), member of Tibet Justice Centre called for two important legal voice, “first, to speed the day when Tibetans can freely exercise their right to self-determination in government and in resource management; and second, to reduce the environmental harm that will occur in the meantime.” While Students for a Free Tibet, an international network of students and activists advocate social justice in Tibet via self-determination for complete independence, Central Tibetan Administration, India seeks to restore freedom for Tibet (SFT 2014; CTA 2014)

Whether it is complete independence or freedom, nomads have become the primary agent of responsibility for grassland governance. However, land use is shaped by political decision on economic development in the end (Xu *et al.* 2008). The discourse of negative impacts of land use by nomadic pastoralism can be broadly classified into two main reasons: mistakes in the implementation of policies, misunderstanding nomadic pastoralism. These two reasons can be studied from various scopes of natural, social and political science etc., all of which share important network. In the review of literature, it becomes evident that there is rising number of

Chinese and Western scholar who now call for recognition and participation of nomadic pastoralism's ancient knowledge in sustainable development (Foggin 2011; Xu *et al.* 2008; Du 2012; Li *et al.* 2014; Miller 1999).

Therefore, recognition, participation and distribution constitute environmental justice (Schlosberg 2004). Even though words, such as environmental justice have not taken any form in most of the standing literature of Tibetan nomadic pastoralism, its elements have encompassed in most of the researches' recommendation. So this research will analyse pastoral nomads' grassland policies from an environmental justice framework of David Schlosberg.

1.2 Environmental Justice

The birth of environmental justice as a growing issue, then a concept and finally movement had been only relatively recent, although the anthropogenic environmental problems have been present on earth since the advent of human civilization. Over the years, the

understanding of justice theories have been analyzed critically by different experts into redefining justice in relation to environment. The discourse of environmental justice started in different parts of the world. In 1980s California, United States, it was found that “...in addition to Kettleman (95 percent Latino), the two other dumps were in Button willow, where 63 percent of the residents are people of color, primarily Latino, and in Westmorland, which is 72 percent Latino” (Cole *et al.* 2001, 3). Bullard (1996) found similar trends of inequitable distribution of environmental benefit and harm amongst colored races as a result of which environmental activism was very heated in Native American, Latin-American, Africa-American and Asian American people. Research conducted by General Accounting Office in 1983 and report on *Toxic waste and race* published in 1987 by United Church of Christ also fuelled the momentum of nascent environmental justice movement (Schlosberg and Carruthers 2009). Even though environmental justice started with the concept of inequity in distribution, more in-depth research to understand different factors over spatial and temporal scale is recommended (Cutter 1995).

However, confining the meaning of environmental justice to racism and equal distribution of environmental pros and cons reduces the realization of justice to only a simplistic concept. Therefore, more critical researches asserted the vital need for the understanding of justice to broaden the conventional concepts in order to better achieve environmental justice (Schlosberg 2007; Light *et al.* 2003). Nowadays, while distribution is still considered as a key defining factor, other crucial concepts of recognition and participation in political procedure of decision making has been also included (Schlosberg 2007; Shrader-Frechette 2002; Lake 1996; Hunold and Young 1998).

One of the frameworks that encompass different domains of environmental justice into a political process is incorporated in the theoretical framework proposed by David Schlosberg. While Schlosberg takes into account the role of equal or fair distribution of environmental benefits and risk as an integral facet of environmental justice, he also brings in recognition and participation in political process of decision making (Schlosberg 2007; Schlosberg and Carruthers 2010). His framework interconnects the stakeholders to the political function of the problem and solution, thus moving beyond the two sided discussion of environmental good and bad. The instrumental policies designed by politics were then subjected to critical evaluation to ensure that environmental justice was incorporated.

Therefore David Schlosberg's environmental justice framework is suitable to test the environmental justice situation of Tibetan nomads. Environmental justice movement for Tibetan nomads is only relatively recent. It came to the peak on grassland scenario after development was brought by People's Republic of China to Tibet after the latter's occupation

in 1959. PRC's treatment towards the Tibetans following the peaceful liberation was a record of human rights abuse and injustice; which ranged from mass shooting, cultural crackdown; religious cleansing, grassland appropriation to enforced settlement etc. All the spheres of these factors are profoundly interwoven in nomadic pastoralism. Therefore, what is described by the state as an environmentally or developmentally motivated policies which causes resettlement into newly constructed socialist lifestyle villages is questionable to how just it is addressing environmental justice in its purpose, process and results.

Hence to evaluate Tibet's case, a holistic environmental justice framework is needed which scrutinizes and addresses not only the conventional concept of equal share of desirable and undesirable environmental services and impacts, but also brings in the importance of the recognition of affected people, their capabilities and their role in the policy-making and implementation processes. This research will be thus looking at the status of the environmental justice faced by Tibetan nomads through the theoretical framework of David Schlosberg (**Figure 1**).

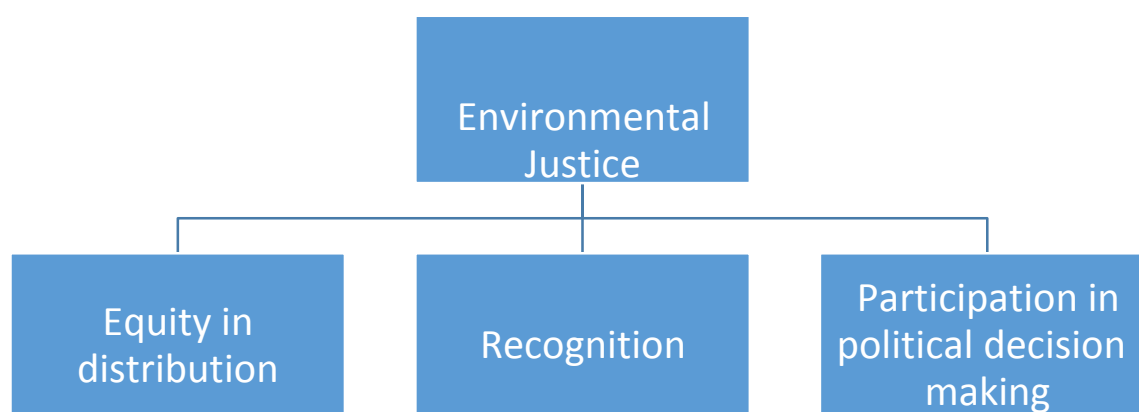


Figure 1: Environmental Justice framework of David Schlosberg, Source: Schlosberg (2007)

2 Research Questions and Methodology

2.1 Research Questions

The theoretical framework of David Schlosberg offers three key elements of justice which are interconnected. Recognition, equity of distribution and participation of communities in the procedure of political decision making encompass a very broad spectrum of societal relationship ranging from a person's indigenous knowledge from its cultural ways of living with environment to active inclusiveness of their role in political decisions that govern their socio-ecological interaction. Tibetan nomadic pastoralism, being a co-evolved socio-ecological and cultural livelihood strategy governed by Chinese state policies after Tibet's occupation becomes a very good case to draw analysis using this environmental justice framework.

The research attempts to answer how environmental justice is incorporated in the grassland policies framework. Throughout the course of this research following questions were analyzed:

1. How is the nature of the grassland problem of Tibetan nomadic pastoralists understood by different stakeholders?

2. How is equity in distribution of environmental risk and diversity and experiences of communities recognized?
3. How is grassland degradation and nomadic pastoralism connected under the new policies?
4. What are the benefits and limitations of the traditional nomadic life, current lifestyle and grassland policies?
5. How is the inclusiveness and participation of affected communities accounted for in the grassland law and policies?
6. How is the language of discourse of history of nomad's justice in the existing literature?
7. What are the reasons for proposed recommendations and why?

This research will analyze these questions in grassland policies' framework. The history of nomadic pastoralism and grassland policies are chronologically discussed in the third chapter to understand the background context to analyze environmental justice. After analysis of each components of Schlosberg's justice in fourth chapter, conclusion and recommendations are made in the final chapter.

2.2 Methodology

This paper is based mainly on qualitative research. It is primarily analyzed based on available published researches, reports, journals, books, media coverage and government websites which were in English. Six semi-structured in-depth interviews were conducted. They are two nomads, two environmentalists and two anthropologists. Depending on the interviewees,

interviews were conducted in Tibetan or English. The interviewees were personally selected and approached for consent by the author found from her desktop research. To the best of the author's capability in contacting and conducting interviewees, she has attempted to balance the number interviewees representing traditional knowledge, modern science and socio-cultural science. Anonymity of personal details of some interviewees were kept to ensure their safety.

2.3 Gaps and Limitations

The ideal research on this issue would be an independent field research inside Tibet without being monitored. Unfortunately, getting visa to conduct research on this contentious issue by an exile-based Tibetan author had only slim chance. Due to the growing restrictions since 2008 crackdown, the medium of direct communication is monitored and very difficult. Many research conducted by Chinese scholars were found to be published in Chinese. The author's barely minimum understanding of Chinese language was therefore a huge limitation to understand Chinese literature. Another challenge in the data mining process of the available research was authenticity of the data provided by the Chinese state. Norbu (2005, 152) who was a Professor of Tibetan Studies and International Relations at Jawaharlal Nehru University, India noted that,

“Most experienced Tibetologists would agree that their field has been hell for statisticians but heaven for anthropologists...One can recall only one census from pre-1950 Tibetan history, namely that of 1268, conducted by Mongols...It was against the backdrop of this statistical poverty, or in the absence of any statistical tradition, that Chinese Marxists introduced and popularized the concept and

practice of statistics. Not, unfortunately, as a value-neutral academic tool but essentially as a propaganda-driven means of measuring progress under the Communist regime.”

Due to these limitations, the author’s research is primarily desktop based and qualitative. The author therefore recommends further field researches inside Tibet upon the issue preferably with an understanding of Chinese language, with careful scrutiny of the provided information.

3 Timeline of Nomadic Pastoralism and Grassland Policies

3.1 History of Nomadic Pastoralism

In first century B.C. Central Asia, India, Tibet and China became connected through a long route called Silk Road, through which many goods were traded on animals, and ideas, culture and philosophies travelled with different people (Miller 1999). Buddhism was amongst them that stayed in Tibet, which continued to bear an important role throughout the stories of kings and lamas of Tibet. During the reign of Sixteen Kingdoms (301-439 AD) and King Songsten Gampo (602-650 AD), Tibetan nomads rose to power; gaining control over Silk Road (Miller 1999) (Miller 1998). Buddhism then imbued in the Bon beliefs of Tibetan nomads and molded their practice of not harming the “native spirits” of soil and rivers called *bdag* and *klu* respectively, lest there will be bad repercussions on them (Miller 2008). The interrelationship of politics, religion and environment grew profoundly connected through in governance of Tibet since the fifth Dalai Lama assumed the political and spiritual leadership (Bell 1998). Under this institution and Panchen Lama administration feudal and a semi-feudal tribute system were adopted to assign lands to the nomadic families after every three years according to their livestock sizes, thus allowing them to continue with their millennia long tradition of environmental stewardship (Sheehy *et al.* 2006; Miller 2000; Goldstein and Beall 1990). Some nomadic communities were free and others were organized into fiefdoms comprising many estates which in turn was made up of an assembly of five to ten or as much as thirty-five households (Tibetan: *rukor* meaning *tent circle*), that made decisions collectively on how to exercise their delimited grazing rights onto grasslands for their livelihood and also to serve the religious and/or aristocratic landlords with taxes in the form of livestock produce such as butter, meat, wheat and grains etc. (Sheehy *et al.* 2006; Miller 2000). These organized estates

of grassland demarcated by natural boundaries such as rivers, ridges and passes were recorded in a register book to help form a baseline census for redistribution of grassland (Sheehy *et al.* 2006; Goldstein and Beall 1990). The distribution and redistribution of grasslands was carried out in a manner that multiple mix of seasonal (winter-spring) pasture were provided suitably to the varying livestock sizes (Sheehy *et al.* 2006; DIIR 2007). Increased herd size led to provision of more pasture which had been lost from the households with decreased herd size.

The Chinese government became an overarching influence on pastoral nomadism when it began to slowly invade Tibet in 1949. After ten years on 10th March, 1959, a revolt broke out in the capital city of Lhasa and Tibet was officially occupied by People's Liberation Army (PLA) of People's Republic of China (PRC) which exiled the Dalai Lama and millions of Tibetans from their homeland (Goldstein 1997). An estimated number of 87,000 lives were laid down in three days (Hao 2000). However millions-nomads, farmers and lay people still remained inside the occupied Tibet, which now comprises Tibet Autonomous Region, parts of autonomous prefectures of Qinghai, Sichuan, Gansu and Yunnan provinces (CTA 2014). Since then Tibet remains as an occupied nation without an unequivocal representation by United Nations. Consequently Tibet and Tibetans, the land and people then underwent radical changes- politically, culturally, economically and environmentally under the introduction of various state policies (HRW 2013, Miller 2000, Goldstein and Beall 1991). Therefore, Tibetan nomadic pastoralism cannot be discussed in isolation from its political history.

Information Office of the State Council of the People's Republic of China (1992) in its white paper on Tibet notes that 90 percent of Tibetans were feudal serfs who had no freedom, while 5 percent were eternally slaves under the feudal land ownership of monasteries (39.5),

officials (30.5) and noble authorities(29.6) who owned farmland of area 3 million ke¹. Then peaceful liberation brought into Tibet by People's Republic of China in the beginning of 1950s by abolishing feudalism. At first nomads, semi-nomads and farmers were forced to work communally on grassland to achieve economic development which led to land appropriation by from eastern Tibet to Central Tibet by Chinese military troops (Yeh 2003; DIIR 2007). Grassland dynamics then changed due to shift in the power politics of economic development in series of grassland policies.

3.2 Grassland Policy Framework

The advent of Chinese policies reform evolved over the past fifty five years bringing numerous transformations on pastoral nomads. The land reform implemented under the Democratic reform marked the end of feudalism, semi-feudalism, class and bartering system followed by introduction of collectivization(1957-1979), grassland law (1985), West Development Strategy (1999), retire pasture to restore grassland policy (Chinese: *tuimu huanco*) (2003), Comfortable housing policy and “build a new socialist countryside” (2006) which rendered voluntary resettlement of pastoral nomads from their grasslands in the end (HRW 2013; DIIR 2007; Sheehy *et al.* 2006; Li *et al.* 2014). The range of policies that escalated from the beginning of the time of invasion were implemented with the objectives of poverty reduction, modernizing animal husbandry and developing backward and unscientific nomads- a language analogous to liberation and emancipation used for Tibetans during 1950s (HRW 2013;DIIR 2007). However, as the state of the grassland ecosystem aggravated over the course of time, the policy concern circled around restoring the degraded grassland and protecting the non-degraded grassland using any rational measure.

¹ 15 ke= 1 hectare

3.2.1 Colonial development

When the People's Liberation Army entered the eastern borders of Tibet in 1949, the nomads of Amdo province faced first hand land infringement (Yeh 2003). The inflow of the huge number of Chinese armies were commanded to feed themselves, thereby leaving them no other choice than to claim nomads' grassland and convert them into croplands (DIIR 2007). Even if an overthrowing number of Chinese military brigade marched into the eastern border, a guerilla force was formed in eastern Tibet called *Chushi Gangdruk* (1957-1974) meaning four rivers, six ranges to resist colonial power (Frechette 2007). However this led to violent suppression on the Tibetan land owners (Snow 2013). The land and people were plunged into a tumultuous conflict in their history of foreign power colonization.

3.2.2 Collectivization

From late 1950s to 1979, land reform took form in the form of collectivization, organizing the Tibetan nomads into collectives while abolishing feudalism, which was further reinforced during the Cultural Revolution of 1966-1976 (DIIR 2007). As feudalism was abolished, livestock and grassland were collectively managed to overcome the economic disparity, while still being owned under the State (Richard *et al.* 2006). As a part of Mao Zedong's Great Leap Forward campaign launched from 1959 to 1962 to march forward the west of China from its backward state, economic prosperity from the grassland was pushed beyond the fragile ecosystem's capacity leading to decline in grassland productivity and subsequently famine

(Becker 1997). Meanwhile, Cultural Revolution penetrated into nomadic pastoralism from 1966-1976 leading to more intensified reform (DIIR 2007). Collectivization, however failed in achieving its goals of economic prosperity and it dissolved. De-collectivization followed and then Grassland law of 1985 came in as an answer to replace “legislative void” to carry further economic development (Brown *et al.* 2008).

3.3.3 Grassland Law-1985 and 2003

After the gradual failure of collectivisation and increasing grassland degradation, a new law (*Grassland Law* 1985) was passed under President Li Xinnian of PRC on June 18, 1985 with mission to achieve following goals with regard to grassland:

- Protection
- Management
- Development
- Modernization of livestock husbandry
- Economic prosperity of National Autonomous Region
- Fulfil socialist needs

Grassland law of 1985 consisted of 23 Articles. While the ownership of grasslands was with the State, stringent enactment of these goals under these 23 Articles were accountable by contracted individual and collective households, and Department of Farming and Animal

Husbandry at township or county level (*Grassland Law* 1985). The fundamental principles strengthening this law are:

- Voluntarism
- Mutual understanding, accommodation and benefit
- Rational grassland use

However, the 1985 Grassland law outlines only very basic statements with no detailed and specific account on how these measures will be effectively accomplished. Following leadership transition through the years, on December 28, 2002, modifications were made on Grassland Law of 1985 under President Jiang Zemin and put into effect on March 1, 2003) (*Grassland law* 2003). In the revised Grassland Law, more comprehensive explanations were illustrated by categorizing into nine chapters in 75 Articles (**Figure 2**).

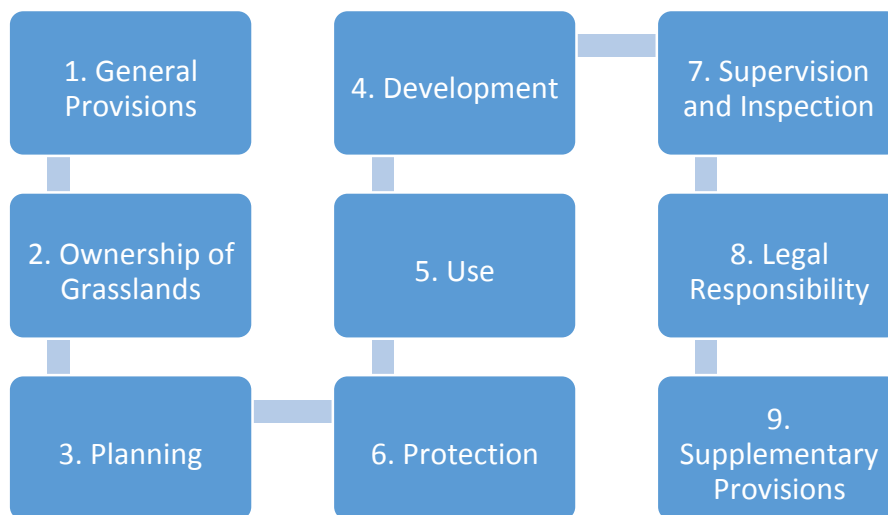


Figure 2: Chapters of revised Grassland Law, Source: *Grassland Law* (2003)

General Provisions enumerated all the goals of previous law and added grassland into natural and man-made types to achieve sustainability and education. *Ownership* detailed the mechanism of contracting grassland to individuals and collectives, where their legal ownership is registered, verified and approved by the nearest administrative government. Granting approval for adjustments in grassland management only if necessary, was decided under two-third majority of herdsmen's representative body at the local level and passed forward from township to county, and State Council for final approval (*Grassland Law* 2003). *Planning* discussed how to develop the nation's economy and society via urbanization and protected development of soil, water, and grassland and forest ecosystem based on National grassland grade system set up after surveys were conducted by concerned competitive departments. Based on stock carrying capacity found from this plan, *Development* should be

carried out under State supported funds to develop and improve man-made and natural grasslands respectively.

In this chapter, three important constructive changes for nomads were made: fences, forage reserve, pens and settlements (*Grassland Law* 2003). Since then, resettlement gradually gained momentum under various policy instruments to better achieve their stated goals of grassland conservation and boosting socio-economic status, yet at the cost of paradoxical consequences (Ptackova 2012, 2011; Du 2012; Foggin *et al.* 2012; Gruschke 2012). Use of grasslands should be carried out based on carrying capacity, rational distribution, consultation in case of natural calamity, compensation and State construction. This chapter raised the key components of environmental justice.

Protection of ‘essential grasslands’ was to be achieved then by controlling pest weeds and animals, ban on grazing activities and reserve constructions, which gave rise to *Tuimu Huanco* policy (meaning retire livestock to restore grassland) (*Grassland Law* 2003). To effectively carry out protection, State council distributed its power to county, town, local people’s government and officers to build politically and professionally qualified grassland *Supervision and Inspection* (*Grassland Law* 2003). *Legal Responsibility* of people were to then abide by Grassland law by cooperating and fulfilling all of the aforementioned principles (*Grassland Law* 2003). Finally *Supplementary Provisions* clarified the definition of natural grassland and man-made grassland as following (**Table 1**):

Table 1: Classification of Grasslands in Grassland Law, Source: *Grassland Law* (2003)

Natural Grasslands	Man-made Grasslands

Grass covered on hillside, mountains and land.	Improved grasslands and restored grasslands
Note: Grasslands in cities and towns are exempted from this classification	

As Grassland law of 2003 came into effect, many policies and programs were branched out to the grassland communities under the rule of law.

3.3.4 Grassland Household Contract System

Grassland Household Contract system was launched in the middle of 1980’s by the Chinese government with an intention to instil responsibility, dutiful rights and benefits to nomads and farmers, for socio-economic development as a result of its success in agricultural production in China (Li *et al.* 2014; Li and Zeren 2013; Richard *et al.* 2006).

According to Richard *et al.* (2006), implementation of the contract system under the Grassland law as observed across the households in Tibet were of three types predominantly (**Figure 3**):

1. Individually owned and managed,
2. Individually owned/ and Group managed
3. Group/village owned and managed.

Under these schemes, distributed grasslands with enforced boundaries were instructed to maintain a stable carrying capacity in order to curb overgrazing. Where the Individual model is representation of Grassland Law, group/village model is of traditional nomadic pastoralism. The second model has properties of both governmental and traditional model (Richard *et al.* 2006).

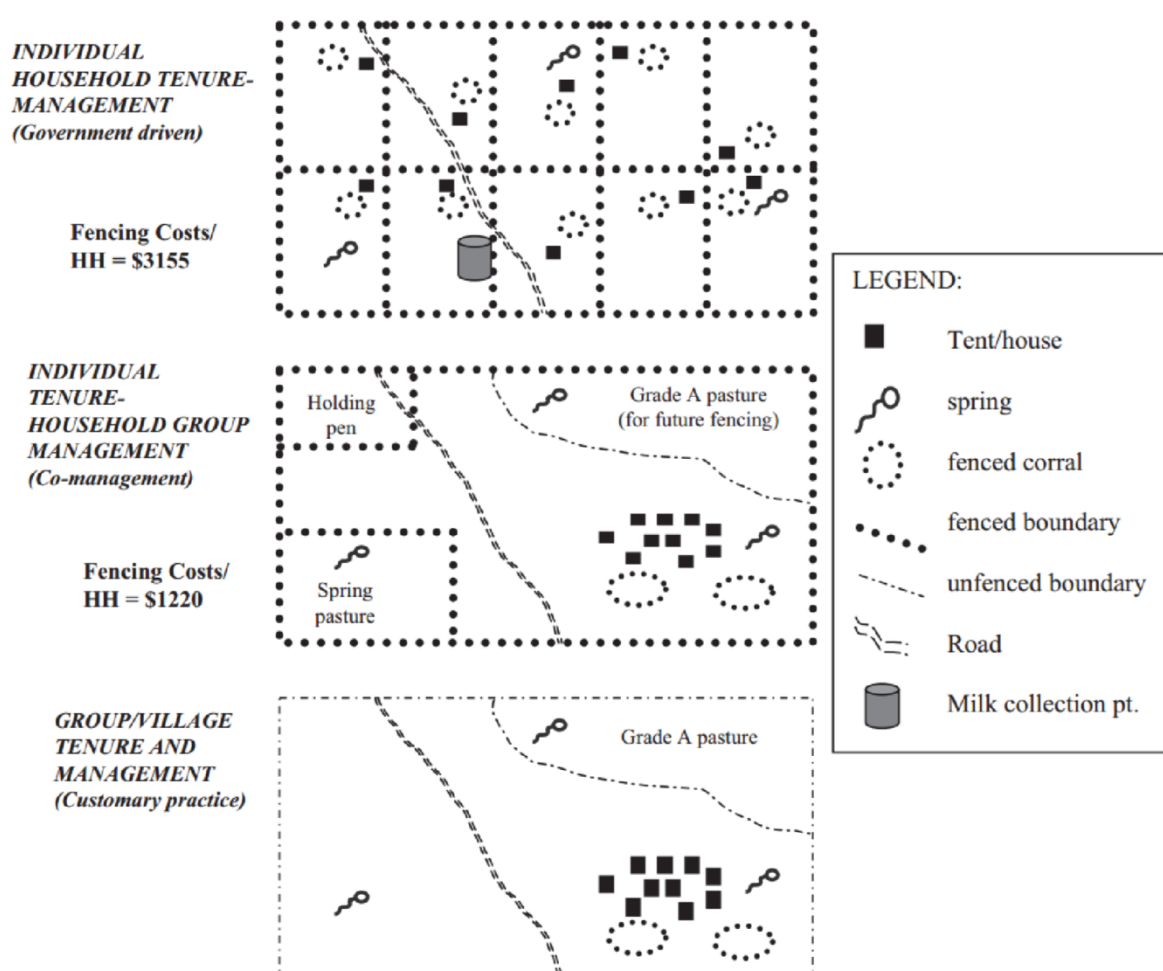


Figure 3: Different models of Household Contract Responsibility System, Source: Richard *et al.* (2006)

3.3.5 Ecological Construction Projects and Resettlement Policy

In 2000, Go West Policy started in China (Jun 2014). This policy is also known as West Development Strategy (Du 2012; Ptackova 2011). One should note here that Tibet is at the west of China. Ecological Construction Projects and Resettlement Policy started in early 2000s when

President Jiang Zemin formulated the revised Grassland Law (*Grassland Law* 2003; Li *et al.* 2014). The key concepts and actions that caused these two important policies came are located from third to sixth chapters (*Grassland Law* 2003). Carrying capacity, grassland degradation index, grazing ban, ecological construction were and sustainable development were key emerging conceptual framework in the revised law.

Ecological Construction and resettlement are two inherently linked concepts. Grasslands of highly degraded index were required to ban grazing, and in other cases where lush pastures were in and around wetland ecosystems, grazing activities were strictly prohibited in order to preserve grassland. Two main actions implemented under these two policies were *Tuigeng Huanlin* (converting farmland to pastures) and *Tuimu Huanco* (retire grassland to restore pasture), which concentrated construction and resettlement predominantly in areas where the then poor ethnic minorities in the grasslands of West were, i.e. in Tibet (Amdo/Qinghai province), east Mongolia, west Mongolia and Xinjiang (Du 2012; Jun 2014).

In Tibet, these policies were then intensively implemented in three river's region² in Qinghai province (Wang *et al.* 2010; Du 2012; Jun 2014). At first, pilot projects were carried out in November 2004, and then later in January 2005 a national reserve area was built, followed by Sanjiangyuan Ecosystem Protect and Rebuild program³ (Jun 2014). Xu Jun, who was a sustainable development expert in the pilot program along with a team of 7 experts, one photographer, one doctor, one documentary maker and investigators from his experience during the project concludes that under any circumstances even with their utmost effort, the ecoimmigrants were not able to completely leave from their pastures (Jun 2014). However, construction of artificial and semi-artificial grasslands along with resettlement and grazing ban were carried out causing have varying degrees of positive and negative impacts on different grassland and pastoral community (Shang and Long 2007; Du 2012; Li *et al.* 2014).

² Three rivers originating from this area are Yangtse, Mekong and Yellow river.

³ It ranks first as the highest and the most extensive wetland, and second in largest wetland reserve ecosystem in the world.

4 Analysis

4.1 Mao's march towards development

Before 1959, Tibet was ruled under political and spiritual leadership of Dalai Lamas. While the governance of Tibet with political and religious nature was held not only at the level of government, the latter played an integral attribute that influenced structural and fundamental foundation of culture, customs, livelihoods and ways of knowing. Nomadic pastoralism is undoubtedly a more complex way of human-animal-nature relationship that migrates

rhythmically to changing seasons with its culture and beliefs intact. Yet religion was considered as one of the main impediment to development by Mao Zedong, as he told the Dalai Lama during the latter's final visit to Beijing China, “ Religion is poison...First it reduces population because monks and nuns must stay celibate, and secondly because it neglects material progress ” (Knaus 2012, 106). Moreover, old habits, culture, ideas and customs were regarded as barriers in development (Snow 2013). Information of the State Council of The People's Republic of China (1992) states that class division under merciless feudal system of Dalai Lama's leadership oppressed Tibetan population with injustice. Hence, according to PRC, backward leadership was the fundamental drawback which did injustice to the people and development

(Information of the State Council of The People's Republic of China 1992, Knaus 2012, Snow 2013). Development of Tibet and injustice of Tibetans were huge concerns of PRC. This shows that Chinese State wanted to raise recognition and realize equality for Tibetans.

Development is perhaps one word that can possibly overarch all the claims that the Chinese Government had asserted in all its interests, intentions and interventions in its past policies and current governance towards Tibet, As much as development programs that swept across the grasslands of Tibet seems to be just pertaining to materialistic revolution and land reform, Kutkauskaitė (2012, 76) describes the agent of reform and revolution originating from deep seated

“... three elements — communism, nationalism and pragmatism — that are closely interlinked and make up a single ideological drive behind the Chinese state; the Maoist version of Communism contains a strong element of Chinese nationalism, and economic development, in its turn, is mostly subordinated to nationalist aims. Communism/Maoism is the official ideology of the state, yet Han nationalism and pragmatism (dedication to economic growth) stepped up as de facto ideologies after Deng Xiaoping’s reforms when it became too difficult to justify the state’s decisions with Communistic ideology.”

In addition, Hardin’s theory of *Tragedy of the common* influenced these ideas of economic development into formulating policies of grassland privatization (Yangzong 2006; Fox *et al.* 2008). The Chinese government claims repeatedly that extensive and irresponsible grazing by nomads caused overgrazing is the main culprit leading to overpopulation of livestock, causing degradation of grassland (Breivik 2007).

These profoundly ingrained ideological theories predominantly necessitated systematic changes that branched out to ‘liberate’ conflicting opinions from the people during its process.

Ideas grew into contradictions that clashed and cropped into suppression and protests. The sense of unity and nationalism amongst Tibetans perhaps grew manifold during this time of colonization as much as their fear entailed. However, development was seen as a needed change to alleviate Tibet's backwardness and poverty to reduce the economic inequity in order to plant

“social and political stability” (Ptackova 2012). These reasons, at least, led under the leadership of Chairman Mao marched Tibet towards a new road.

4.2 Peaceful Liberation- A road to development

On 23 May 1951, after Chamdo, the capital of Amdo or Qinghai province was invaded by PRC, the representatives of the Dalai Lama were sent to Beijing to resolve the issue, which however resulted in the signing of the 17-point agreement which marked the Democratic Reform of Tibet (DIIR 2011). The next fifty years marked radical changes in the history of Tibet that pervaded vast and deep in its grasslands and rivers. Half a century is no more than only a short time period from history's perspective, but 50 years long of a lifetime for an individual to change.

This brings in nomadic pastoralism: the relation of nomadic pastoralism to their grasslands, which is essentially a continuous and changing phenomenon in circular motion. Their relation can be described as being dependent on and depended upon by the grassland, which is found to run parallel in principle of interdependency of Buddhism. Their practice has been crucial in lending internal stability to the fundamental structure and function of their survival and ecosystem (Xu *et al* 2006). While the nomads were ignorant of modern science infrastructure,

they had inculcated strong survival strategies in adapting to the natural setting (Miller 1998; Miehe *et al.* 2009). This can be attributed to their knowledge of grassland which has been acquired and lived through acquaintance to grassland for generations. The development of their culture, customs were acquired by living on grassland simultaneously shaping landscape formation (Miehe *et al.* 2009; DIIR 2007)

Later when Chinese forces marched in to “liberate” Tibetan nomads and the like, abolishment of feudalism is marked. This is conceived as the beginning cornerstone of justice. However, Grasslands of area around 670 square kilometers in Amdo were forcibly converted and accordingly nomads had to suddenly live an estranged and new way of life of communal labor earning ‘work points’ (DIIR 2007). Therefore, it is paradoxical to possibly comprehend how sedentary lifestyle on *grassland* under enforced *cropland* production doing any justice to nomads, whose lives revolve around rhythm of changing seasons and mobile herds. From the beginning of the policies, traditional knowledge system of grassland conservation and animal husbandry techniques are not taken into consideration, even though due taxes of all Tibetans accumulated under feudal system were cancelled via collectivization.

4.3 Equity in distribution

Tibet is called *Xizang* in Chinese. It means western treasure house, as 126 mineral types were found to present underneath its permafrost soil (DIIR2007). Concurrently, the heterogeneous distribution of these minerals also determine the nature of grassland ecosystem and development projects. Factors affecting the nomads in one type of grassland in Amdo province may vary and hence does not have to necessarily apply to those from Tibet

Autonomous Region. But regardless of these factors, the consequences of these factors ultimately affect the equal distribution and access of grassland and livestock which are of paramount importance to every nomad's livelihood.

Under the feudal system, equal distribution is conceived and provided as a mix of seasonal pastures (Sheehy *et al.* 2006; DIIR 2007). This shows that their rationale of distribution was fundamentally based with primary importance to seasonal grassland productivity, then herds and nomads, for nomads ultimately depended for food and shelter on its livestock. Since grassland's productivity changed in response to season, elevation became a key criteria in distribution of seasonal pasture. Choedak-an exiled Tibetan nomad living abroad said,

“All of us nomads, grazed our herds together on a vast stretch of pasture. Our home is based in winter-pasture which is located at the lowest elevation. It is the least cold compared to colder pastures of summer and autumn.”

The naming of pasture shows an interesting reciprocity reflecting their adaptation strategies. Winter-pasture is characterized by lowest altitude and summer pasture is characterised by highest altitude. This survival strategy necessitated them and their herds' mobility. The designation of pasture with three names, as the nomads explained, are based on the different seasons which guides their mobility. Most importantly, it shows that the notion is fundamentally grounded in the knowledge that season distributes productivity in grassland. Consequently, grassland was managed collectively, even herds belonged to each family.

There had to be proportionate ratio of livestock that are sufficient in the “abilities” of the nomads to look after.

Choedak further explains that distributed herds were passed down from generations. Yet even if a family divided its livestock proportionately after their children got married and stayed in a separate household, the ownership of grassland was responsibility of collectively management.

On the formulation of revise Grassland law 2003, traditional ownership of grassland was appropriated and hence their traditional livestock distribution was unable to continue for a while. On the basis of carrying capacity, all of the individual households, collectives and resettled nomads were instilled with usufruct rights and responsibility to manage grasslands rationally under Household Contract Responsibility System. However HCRS was introduced due to its success in Chinese agricultural production. This implies that the State’s basis of understanding views the pastoral nomads’ grassland management and subsistence production strategies the same as Chinese agricultural model. Even if this system had worked in China, it does not reasonably dictate success on the plateau’s pastures (Richard *et al.* 2006). Moreover, in China this land reform approach was a voluntary achieving initiative of Chinese peasants, which was adopted all over China after legal approval from Chinese Government, as opposed to Tibet, where colonial top-down enforcement mechanism which did not have any clear-cut time duration, but for a long term (Yeh 2004). This shows that there was fundamental misunderstanding in recognition of traditional knowledge.

HCRS was implemented, under which nomads can be divided into two broad categories, viz. the nomads continuing their traditional practices in different degrees under three different types of grassland management models, viz. Individually owned and managed, Individual household owned/ but Group managed and Group or village owned and managed, and the resettled nomads (Richard *et al.* 2006). In both cases, the grasslands need to have enforced boundaries.

Individually owned and managed model is implemented the allocation of grassland as on the official paper and in reality are paradoxical. While it is described as being fairly and equally distributed in the official paper, some nomads receive good pastures whereas other don't.

Yangzong (2006) found that as opposed to government's claim of fair distribution, in reality people who had good connections with governors were allocated better grassland than others. Distribution was biased upon having relations with political authorities. Moreover, often the size of the pasture is small which contradicts with the nomads' understanding of herds' need and shelter. Choedak said, " *Nor* (meaning yaks) needs open and spacious grasslands to survive." Furthermore, distribution of water resource is poor in some areas, leading to competition amongst herds and river bank erosion around nearest source of water and increased social conflicts (Richard *et al.* 2006). Distribution of grassland had therefore failed to ensure equal distribution of water as found in Hongyuan county, Sichuan province and Changtang, Tibet Autonomous Region (Richard *et al.* 2006; Yangzong 2006). There has been recorded positive aspects of this model with increased provision of subsidies for fence, social, veterinary and government services compared to the next models (Richard *et al.* 2006). Yet in Changtang,

TAR unequal distribution of subsidies were found by Yangzong (2006). Case studies from Sichuan, Qinghai province and TAR has shown that allocation of grassland and water availability is neither fairly or equally distributed (Richard *et al.* 2006; Yangzong 2006).

The division of grasslands in this model therefore leads to poor grassland distribution which loosens the nomads' social cohesion and unity. This social division further changes the meaning of grasslands to the nomads. Grassland which previously meant a shared home now tends to have broken into properties that are distributed into "mine" and "yours". People who preferred this model chose it as a result of family security during management (Cao *et al.* 2011). This shows that governmental goal of grassland security were not immediate concerns to people under this model.

In the individually owned and collectively managed model, which is a middle ground between government and traditional model of grassland management, there are different levels of satisfaction with the allotment of grasslands from the nomads (Richard *et al.* 2006). Two or more households collectively pull in their labor in managing their grasslands, although the legal right is at the level of Individual household. Yet this model still not being a strict implementation of government's model, are provided with lesser subsidy for fence

construction. However, there is less need of fence due to flexibility in the livestock distribution which characterizes premobility. This model helps in more equitable sharing of biodiversity and water resources (Richard 2003). Also, mutual cooperation in this model generates more income benefits and less cost production due to shared labor strategy, while also lending sustainable techniques from nomads. It builds a more friendly and legitimized pastoral society and supports better completion of infrastructural developments, such as, water

and solar energy etc. (Cao *et al.* 2011). For example in Maqu county, Gansu province, which became a meat and butter production zone, there has been a uniform distribution of herd across the pasture to facilitate access to market (Richard *et al.* 2006). This model was also recommended by Gabriel Lafitte, Development policy consultant to Environment and Development Desk of Central Tibetan Administration. He argued,

“In the absence of meaningful comanagement of the grasslands, a new governmentality is now replacing the revolutionary productivist ethos. Now the pastoralist are expected to stand aside, forever sidelined, designated as payess for environmental services, so their land can be restored to an imaginary original pristing wilderness of wild grasses, as contribution to carbon capture and watershed protection.”

However, either of the first two household contracts which are officially recognized by the Grassland law hold an ambiguous standing. The Grassland Household Contract Responsibility system, which aimed to clarify the legal status of grassland ownership rights so as to “protect herders right to benefit”, is not trusted completely by some of the affected communities in terms of the security of the contract term (Richard *et al.* 2006; Yeh 2004; HRW 2013).

In the final model which represents traditional nomadic pastoralism, legal rights to ownership are bestowed upon the “administrative villages and natural villages” which are not contracted under the Grassland Law (Richard *et al.* 2006). Thence they are able to equally exercise traditionally distributed grassland with greater mobility and more social integrity. However,

this practice not being in compliance with the rules and regulations under the law, is not equipped with subsidies for fences. Hence they are in the most vulnerable status of being encroached.

Then again, there is the question of equity of distribution to resettled nomads. Their eviction from pastures are declared to be forced (HRW 2013; Schutter 2012). The local government explains these houses are of modern facility, infrastructure, electricity, water and more adapted to climate vulnerabilities while the testimonies from nomads expressed many challenges in receiving adequate compensation and subsidies for construction (HRW 2013). Tashi from Biru county in Nagchu Prefecture, Tibet Autonomous Region explains that the newly built house depict a very uniform and developed facility from the outside. However 50% of the construction fee had to be borne by themselves regardless of their economic status. Furthermore he noted,

“ Even if we moved to the newly built towns, which we don’t want to, these concrete towns are not where our herds are supposed to be. Still, we have to slaughter 30 percent of our livestock.”

For nomads, this order of slaughtering goes fundamentally against Tibetan nomads Buddhist belief of not harming others. It thus undermines their principles of virtue. The basic infrastructure of the house are not well built, which increases the chances of being prone to getting easily damaged. This causes them to renovate their houses under strict house guidelines which is too small for them and their livestock (HRW 2013). He further explains

that these socialist villages are where the Chinese migrants are housed, and for Tibetans it has become a resting place for old age and infants. Moreover, some of their traditional pasture being a rich mine reserve or close to water sources, are being utilized for mining operations and construction of hydroelectric dams without their knowledge and consent.

In the end, HCRS and RP create unequal access and distribution of grassland to varying degrees albeit at the cost of generating energy supply. Even if the government and academic literature had recorded nomads to be enjoying better housing, hygiene, subsidies and social services, the authenticity of these findings are unreliable since a lot of researches pointing out positive achievements are found to be concluded from secondary data, deductive reasoning and vague data sources (Li *et al.* 2014).

When these nomads are ultimately facing inequity in distribution by these activities, it raises the question of recognition of their opinions, concerns, diversity and ancestral knowledge, for “recognition and/or respect are inherent preconditions for distributive justice” (Schlosberg 2004, P519).

4.4 Recognition

The recognition of Tibetan nomads in the Chinese policies is three-fold which share pertinent relationships. Firstly, how were the Tibetan nomads recognized under the feudal system by the Chinese policies? Feudalism was conceived as a backward system under which the overall status of the Tibetans, apart from the nobles, aristocrats and landlords were captives to slavery

and injustice to the tax and land allocation system. Consequently, the generalized recognition of the Tibetans was of being economically poor. To change this, collectivization was introduced to create and recognize all the Tibetans to come on equal footing. Gradually under the HCRS, ECPs and RP, their degree of exercising traditional nomadic pastoralism which is conceived as overgrazing became moderated. This was because, and secondly, due to no official recognition of their ancestral knowledge of livestock distribution and seasonal pasture-dependent mobility in conservation of the grasslands. The nomads and their livestock had then become recognized as causes of grassland degradation due to their overgrazing activities. The State's narratives tend to be consistent in maintaining the backwardness of Tibetan livelihood, either at governmental or grassroots' level. The Chinese government had then went forward in extending state support in developing their livelihoods in their newly resettled socialist villages with provisions of fences, reserve forage, pens and drinking water facilities as listed in the Development chapter of Grassland law. In U-Tsang province, now called as Tibet Autonomous Region, this was known as Comfortable Housing policy which aimed to extend "eight connections to rural homes: water, electricity, natural gas, roads, telecommunications, state media broadcasting, postal services, and an exquisite environment" (HRW 2013, 40-41). Wang *et al.* (2010, 444) proclaims in its list of achievements during the voluntary ecological migration in Sanjiangyuan area that

"...efforts were made to retain folk customs and cultures. Folkways, customs, and cultural symbols of Tibetan ethnic groups were considered and respected".

However, recognition cannot just simply be distributed with services like housing support and construction subsidies: as Schlosberg (2007, 521) puts it,

“A state may set an example of recognizing a socially demeaned group, but recognition must happen as much in the social, cultural, and symbolic realm as in the institutional. The state may implement affirmative action, but social recognition for communities currently misrecognized and politically excluded is a broader issue.”

The policies tend to use distribution as a measure of recognition. This interlinks with the third dimension of recognition: that of nomads' expression to the grassland policies. In a lot of testimonies of Tibetan nomads, when they expressed reluctance towards being relocated or slaughtering their livestock, they faced political exclusion and were labelled as being engaging in separatist acts with Dalai clique. In a letter sent from Rebkong, Amdo Province to Dhomay Alliance for Freedom and Justice in Dharamsala, India, it raised issues of State's lack of recognition of their locally elected representatives and disrespect towards their faith and values (ICT 2012). Simultaneously, in independently conducted interviews, Choedak, a nomad from Amdo province and an anonymous anthropologist recognized their intention of development as a political and colonial tool.

Finally, in the wider realm of recognition in terms of their nationality, they have now become recognized as “ethnic minorities”. This is contested by Tibetans, scholars and activists in exile and abroad by asserting that Tibet has distinct religion, language, culture and political system

which should be recognized and given freedom. For Tibetan nomads, even if they are spread across the plateau share similar language, culture, practice and religious beliefs (Miller 1999). However, these adhesive aspects which constitute nationality is highly marginalized due to the population transfer from China mainland who come in search of employment opportunities in the developing and modernizing Tibet. Many Chinese scientist recognize their importance to grassland conservation and sympathize with their difficulties in adapting to new urban setting (Du 2012, Xu *et al.* 2008; Li *et al.* 2014). However, while Hao (2000) agrees on the evidence of population transfer inside Tibet, he clarifies that fallacy about population outstripping of

Tibet is based on misconception between political and ethnographic Tibet.

Regardless of whether these grassland policies and population transfer schemes are intended or not to marginalize the Tibetan nomads to the horizons of community, they ultimately create a state of fear which spurs the conscience of their identity to be recognized as a nation, nationality and nomad into becoming politicized. In the discourse of nomads' environmental justice, recognition then becomes a matter of political issue. Students for a Free Tibet, a non-profit pro-independence organization expounds that Tibetans are not "ethnic minorities" or "indigenous people", but they are a nationality who have a specific claim to a specific territory. They conceive that the Chinese State uses green politics to divert and confuse the people and ultimately enforce colonial policies. On the other hand Tibet Justice Network advocate Collins (2014) attempted to seek solution to the management of Tibet's environment by using law and politics to call for self-determination which is important in recognition, granting participation and political freedom of choice. Tashi expressed,

“I hope that the solution to this problem lies in using laws which the Chinese government had laid out, but isn’t being practiced honestly. I hope that when we are taken to the court, the law listens to us before accusing us of being political, when some small fights occur between Chinese and Tibetans. Otherwise, it is very hard.”

A comprehensive analysis of the GHCS, EC and RP in the academic and government literature conducted by a team of Tibetan and Chinese scientists found that all of these policies had adversely affected the pastoral society, culture and livelihood albeit, they have achieved in their goals of ecological protection (Li *et al.* 2014). Furthermore, for nomads, recognition of their own identity becomes challenging. Nomadic pastoralism is a life that they did not choose or decided for themselves or were bound to, but rather it is a life that they live. Without it they become unknown to the harmony of their existence, and resort to alcoholism, prostitution and waste scavenging. Choedak said,

“Living under such policies makes the younger ones want to look for jobs in the far away cities, which leaves alone their aging nomadic parents back home. The old ones cannot look after their few livestock. Therefore, sometimes they do not have any other choice than to sell their livestock.”

Tashi noted that half of the money for the construction of socialist house is borne by the government and the other half is borne by the family. In cases of poor families, they get further pushed into poverty. Therefore, the disappearing nomadic pastoralism is a profound

and personal challenge. It causes disintegration of the family and identity crisis amongst the younger ones. As a result, Schlosberg (2004, 523) wrote,

“to challenge a range of cultural, political, and structural obstacles constructed by cultural degradation, political oppression, and lack of political access, communities are coming to demand a voice and authentic participation” (Schlosberg 2004: 523).

4.5 Participation and Inclusiveness

The Chinese government claims, as is obvious from the name Tibet Autonomous Region, that they grant autonomy to the Tibetans under the one country, two system policy. This raises questions about their definition of autonomy, since the Central Tibetan Administration, India calls for meaningful dialogues with China seeking a “genuine autonomy” under Middle way Approach⁴ and not independence for Tibet. To analyze their practice of autonomy from environmental justice context, active participation of Tibetan nomads in the political process of grassland policy-making becomes the key criteria. However, participation and inclusiveness are closely linked with recognition, where the latter is the determining factor. The nomads, their knowledge and expression being recognized as backward and charged with political separatism had therefore been difficult in being granted participation and inclusiveness since the beginning of grassland policies.

⁴ Middle way approach is adopted by Central Tibetan Administration democratically.

Yangzong (2006) found from her research on Individual Household Contract Responsibility system in TAR that, the Chinese government organizes and trains employees from different departments about policy frameworks and technical skills necessary for grassland division in ten days. Other nomads testified that they came to know of the condition of participation in resettlement only after signing contract (HRW 2013). Hence, their participation is a result of access to incomplete information and lack of coalition for nomads' participation in grassland distribution's training projects. The co-management model of HCRS is encouraged highly by Development expert Gabriel Lafitte and Chinese scientists (Cao *et al.* 2011; Richard *et al.* 2006; Yan *et al.* 2005) as it ensures participatory and inclusive approach. This model includes their traditional knowledge and modern scientific methods into forming a more adaptive policy and pastoral society that participates in effective grassland conservation and production. The nomads link the grasslands' health to evolution of human-nature interaction in addition to precipitation, climate, and grazing pattern of different types of livestock (Du 2012). However, Ngawang Yeshe explains that his home base being located very close to Mount Everest is now highly vulnerable to precipitation changes and glacial meltdown due to global warming.

Additionally, a breaking research on Tibetan Plateau's climate reported that average annual temperature has increased by 0.31 °C every ten years between 1961 to 2013, and would continue to rise by 1.96°C from 2011 to 2100 marked by extreme summer, winter temperatures and precipitation (Xinhua 2014). When asked about Choedak's (a nomad from Amdo Province) opinion on development, he said that if the world is developing, they have to accordingly step together. He suggested that the young nomadic children who can learn modern education will help develop, whereas others who don't want to go to formal school

can still learn from them in developing their traditional practice. This shows that nomads would possibly be willing to cooperate with development policies, if the State cooperates and listens to what they have to say about their concerns, questions and recommendations about current grassland status from their experience. It is also important to think of a scenario of development in Tibet if PRC had not occupied Tibet. Nomadic pastoralism would have changed and adapted in new ways of livelihood.

With regard to resettlement, majority of nomads asserted that their participation in resettlement is not an option but a given decision from the local government to which they have no choice to disagree lest their subsidy will be cancelled. Tenzin Lhundrup, Professor of Sociology at

China Tibetology Research Center, Beijing also mentioned in an interview conducted by Tsechu Dolma that nomads were not consulted in policy-making since the government employed scientists know the best solution for environmental protection from their research (Dolma 2011). There is no prior consultation or discussion in a lot of nomadic villages before policies implementation (HRW 2013). This is because under the Grassland Law, participation of nomads in the procedural justice stops at the local representatives' level. In accordance with rule of law, Tibetans have participated in electing their local representatives in Rebkong county, Amdo province, but only to be least recognized and respected (ICT 2012). In Rebkong, while nine Tibetans self-immolated within three weeks in 2012, Tenzin Sherab, after being forcibly relocated, self-immolated on 27th May, 2013 in protest against Chinese invasion, resettlement and land reform policies (TCHRD 2012; VOA 2013). Since 2008, more than 13 Tibetan nomads have self-immolated. While some have shouted for freedom and Dalai Lama's return, others have protested against the resettlement policy. Yet, self-

immolation is perceived and claimed as being politically motivated by PRC, is punished by termination of development funds and projects in the entire village within three years (TCHRD 2012). In the end, perceived political recognition and participation of nomads reduce distribution.

Many nomads who have then resettled and participated in their new villages to access other income sources by digging caterpillar fungus, weaving blankets, working in restaurants, construction and driving taxis etc. (Du 2012). However due to their illiteracy, insufficient subsidies, poor formal job training and Mandarin Chinese speaking skills, their livelihood security faced profound challenges in adapting and integrating to new or urban life, albeit some aspects of transportation, education and health care services improved (Jun 2014; Du 2012). Tashi noted that there has been no improvement on animal husbandry knowledge in his village under modernization. Consequently, some nomads then turn again to grazing which then becomes illegal under Grassland Law. Such desperate activities will thus add another element to their recognition, of being criminals, which will hamper distributional equity.

The analysis of literature on grassland policies shows that participation of nomads is seen only in the realm of the results of the policies' implementation and not in process of policy-design or making. The list of the literature clearly show very little research done in the political process of grassland policy making, and hence emerging number of scientists recommend the need of rethinking policies' rationale . Almost all the published researches are analysis about the efficacy of the policies' framework and results of their implementation. Furthermore, a comprehensive report on the Comfortable Housing Project published in 2006 by TAR

government had participation of only one Tibetan amongst 26 Chinese authors, and no account of participating with nomads during policy development process (HRW 2013)..

Independent interviews conducted with Tibetan environmentalist Tenzin Norbu and two other anonymous anthropologists explicitly clarified that causes for grassland degradation in Tibet is highly complex, but that nomadic pastoralism can help solve it with their knowledge of grazing history. Likewise, the complexity of causes for current state of grassland degradation is multidimensional and highly complicated that it is questionable as to how the nomads will be able to survive all the causal factors only via traditional grassland management model. Therefore, in such a drastic stage of climate change, continuity of their traditional practice becomes difficult without State's assistance with modern contingency supports. Collective strategies to build up resilience, protection, sustainable production and conservation of grassland ecosystem are need of the hour.

5 Conclusion and Recommendations

5.1 Conclusion

Environmental Justice as a term itself was rarely encountered in the analysis of literature of nomadic pastoralism. The grassland policies that were implemented emerged predominantly after the formulation of Grassland Law. Especially under the revised Grassland Law 2003, fundamental conceptual framework guiding nomad's use of grassland were formed. Carrying capacity, resettlement, construction of man-made grassland and sustainable development were raised. Analysis of environmental justice in grassland policies found that the most prominent component raised in Grassland Law was found to be that of distribution. However, although State and its laws had outlined sustainable plan, the overall status of distributional justice was found to be poor in Household Contract Responsibility System, Ecological Construction Projects and Resettlement Policy. Furthermore, distribution of political power and responsibility of grassland economy was also found to be a crucial factor in environmental justice. State Council had the biggest political power which was hierarchically distributed to Provincial, County, township and local representative group. However, in the end the biggest responsibility of land use economy was narrowed down to nomads in households.

Secondly, recognition and respect of nomadic pastoralism's culture, faith and values were not genuinely carried out. In the key grassland policies, nomads were recognized as culprits of grassland degradation. Their knowledge system was considered as irresponsible and backward. Their protest for freedom and justice as a Tibetan nationality was recognized as

political separatism. Furthermore, their grazing activities on banned grassland would also add a criminal recognition to their lives.

Finally, active participation of nomads in the political procedures of grassland-related decision making was found to be absent due to disconnected political power distribution at local representative's level. Inclusiveness of knowledge system of nomadic pastoralism was found in the co-management model of HCRS.

Therefore, Environmental justice was found to be poorly incorporated in grassland policies. The grassland policies were flawed in their ideological framework of methodological approach. Consequently, nomadic pastoralism had experienced profound challenges in its integration with modern socio-economic development; while trying to maintain its cultural values and Tibetan nomadic identity intact, by accessing and adapting to new ways of understanding and living life that are distributed to them

5.2 Recommendations

Grassland policies have changed over the years. However, it is questionable as to how nomadic pastoralism's knowledge was used in providing recommendations. The following recommendations were derived from interviews with nomads.

- Freedom of choice should be given to nomads during resettlement.

- Development need not eradicate nomadic pastoralism. But it should provide unbiased education for nomadic children.
- Tibetan language should be preserved in the schools.
- Dispute settling administrative bodies should unbiasedly listen to Tibetan first instead of calling them straightaway as political separatist.

Based on Environmental Justice Framework, recommendations are as following:

- Recognition and respect of culture, faith, values and traditional knowledge system of nomadic pastoralism
- Participation of nomads via qualitative and quantitative representation
- Dissemination of unbiased information related to ECPs
- Equal distribution of social, educational, environmental and financial supports and services
- Reformulation of revised Grassland Law 2003 to include co-management model

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- Gabriel Lafitte, Policy consultant to Environment and Development Desk, Central Tibetan Administration. Formal Interview. Budapest, 15 July, 2014.
- Tenzin Norbu, Head of Environment and Development Desk, Central Tibetan Administration. Formal Interview. Budapest, 15 July, 2014.

The real names of the interviewed nomads were kept anonymous for their families' safety in Tibet. Choedak and Tashi are used instead.

Two anthropologists were kept anonymous as requested.