

Climate migration and the politics of causal attribution: a case study in Mongolia

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Migration is always multi-causal. Ascribing a specific cause to migration, such as through the concept of “climate migration,” participates consequently to a political exercise – a play of shade and light where attention is focused on the responsibilities of certain actors rather than others. This is the case, this article argues, regarding internal migration in Mongolia, whereby, during the last two decades, nomadic or semi-nomadic herders as well as inhabitants from small urban centres come to settle in insalubrious suburbs of the capital, Ulaanbaatar. The Mongolian authorities are keen to highlight changing environmental conditions that can be traced to climate change: a change in precipitation patterns and an increase of average temperatures contribute to cause large loss of livestock during harsh winters (*dzud*). Yet, a multitude of other factors concurrently influence the migratory behaviour of Mongolia’s nomads: unregulated and unsustainable pastoral practices, the insufficient provision of basic and support services in the countryside, or, more generally, the lack of public support to the agricultural sector. Identifying concurring causes of migration suggests alternative response measures, and this article argues that Mongolia should urgently rectify its development policies to provide a room for each of its citizens.

Keywords: climate change, migration, development, Mongolia.

1. Introduction

“Man’s mind cannot grasp the causes of events in their completeness, but the desire to find those causes is implanted in man’s soul. And without considering the multiplicity and complexity of the conditions any one of which taken separately may seem to be the cause, he snatches at the first approximation to a cause that seems to him intelligible and says: ‘This is the cause!’”

Leo Tolstoy¹

*“The law of causality, I believe, like much that passes muster among philosophers, is a relic of a bygone age, surviving, like the monarchy, only because it is erroneously supposed to do no harm.”*²

Bertrand Russell

In philosophy and history like in law, accounts of causation have led to endless theoretical debates (Hart & Honoré, 1985; Hitchcock, 2008, p. 235). Yet, politically-relevant narratives are inescapably based on causal statements. Causation matters, from an advocacy or governance perspective, because identifying a cause allows us to address its consequences: relevant policy levers are defined on the ground of causation. Thus, constructing causation participates in justifying specific policies and rejecting others as irrelevant or inefficient. Successive concepts of “economic,” “environmental” or “climate” “refugees,” which often referred quite interchangeably to similar populations of forced migrants – essentially those whom Alexander Betts recently proposed to call “survival migrants” (Betts, 2013) – shed light on different issues areas by attributing migration to different causes, respectively global inequalities, environmental disturbances, and climate change.

Based on a case study of internal migration in Mongolia, this article highlights the political consequences of ascribing migration to climate change rather than to a broader set of causes. The case study focuses on a massive internal migration flow of former herders and dwellers of small urban centres toward the capital Ulaanbaatar since the mid-1990s. This study was mostly conducted through desk research, supplemented by a visit of the country in March and April 2013 to discuss (with a Mongolian translator when necessary) with about fifty stakeholders – local or national decision-

¹ *War and Peace* (1869, Louise and Aylmer Maude trans. 1952), book thirteen, chapter 1

² On the Notion of Cause. (1912) *Proceedings of the Aristotelian Society*, 13, 1–26, p. 1.

makers, civil servants, politicians, members of non-profit organizations, researchers, diplomats, employees of international organizations, as well as migrants and herders, in Ulaanbaatar, Erdenet and Mandalgovi and their surroundings. The case of Mongolia was selected because of the existence of a clear migration pattern which has been relatively intensely documented over the last two decades, allowing the author to rely on secondary literature in English, and the existence of clearly distinguishable environmental and political factors. The dominant domestic narrative attributes this migration to the perceived acceleration of *dzud*, a complex meteorological phenomenon that results from the combination of a dry summer and a harsh winter, as a consequence of climate change. Yet, other factors are certainly at play, in a country that has undergone a brutal capitalist transition in the early 1990s, and where the government and its international partners have massively disinvested from the agricultural sector and rural development more generally.

The rest of the article is structured as follows. Section 2 presents the factual basis relating to the internal migration flows in Mongolia since the mid-1990s. Section 3 explores the dominant causal narrative, attributing this migration flow to the acceleration of *dzud* in the context of climate change. Section 4 develops an alternative causal narrative, attributing the same migration phenomenon to structural political, economic and ideological changes. Finally, section 5 compares the utility of the two narratives in an advocacy and governance perspective and questions the relevance of the concept of climate migration.

2. A massive internal migration from the countryside to Ulaanbaatar

Mongolia has witnessed important migration flows since the mid-1990s. In a country of three million inhabitants, about 30.000 newcomers are registered each year in Ulaanbaatar, capital and only large city (with 1.3 million inhabitants) in a country of

immense grasslands. Once in Ulaanbaatar, these migrants settle in the periphery of the city, places that are locally known as “*ger* districts” by reference to the traditional tent (also known, outside of Mongolia, as “yurt”) that some migrants bring with them when they cannot afford a solid structure.

The *ger* districts extend far in the hilly areas of the North of Ulaanbaatar; they represent about half the city’s population. The centre of Ulaanbaatar is in many respects similar to many modern towns with a few high-rises and cosy cafes and restaurants; buildings are connected to a reliable electrical network, water and sewage systems as well as municipal heating, and their inhabitants have access to basic services. In contrast, *ger* districts do not always have access to electrical, water and sewage systems. Most *ger*-dwellers use stoves as a form of heating during the winter, which results in severe air pollution in Ulaanbaatar’s valley. Public services such as education and health care are rarely available. Some families try to settle irregularly in flood-prone areas to have access to such services, despite the risk of flash-floods (Dagvadorj, 2010, p. 100): two hundred households were resettled from flood-prone areas of Ulaanbaatar in 2012.³ Foreign NGOs have often come to replace the state in providing access to basic services to the *ger*-dwellers. *Ger*-dwellers rarely gain access to formal employment: many make ends meet as unlicensed taxi drivers, or any temporary work available.

Migrants often identify unemployment as the reason for their migration. Some of them are herder families who lost their flock, while others were inhabitants of small urban centres (*aimag* centres or *sum* centres, by reference to the two levels of local

³ Interview of T. Chimidbaldir, officer in charge of meteorology, National Emergency Management Agency (10 April 2013).

government). Many went back and forth from herding to temporary settlement in the margin of small urban centres but were unable to find a stable livelihood. Other families always lived in small urban centres, where they lost their jobs. Migrants also mention the better availability of basic services in Ulaanbaatar, in particular health care and education for their children.⁴

Urbanization is neither a new phenomenon in post-communist Mongolia, nor is it a phenomenon peculiar to Mongolia (see e.g. Spencer, 2014). Mongolia was for the most a rural country until the creation of Mongolia's People Republic in 1924, but nomadic pastoral husbandry always relied on the existence of small urban settlement which were once organized around hundreds of rural Buddhist monasteries (e.g. Bawden, 1968, p. 181; Sneath, 2003, p. 445). Some destitute herders would settle in these urban centres until they could re-invest in a flock, resulting in a constant, coinciding phenomenon of sedentarisation and nomadisation as an individual coping strategy (1978, p. 121). The socialist state encouraged industrial and administrative reforms that resulted in a rapid urbanisation (e.g. W.A. Douglas Jackson, 1962, p. 83). Yet, as the socialist government did not recognize the freedom of internal displacement (Bawden, 1968, p. 408), urbanization, although rapid (see **Error! Reference source not found.**), remained under control, while massive subsidies from the USSR diminished the migration incentives by supporting light industry in remote urban centres. As a result, throughout the 1970s and 1980s, the population of small urban centres was growing more rapidly than the population of Ulaanbaatar (see **Error! Reference source not found.**). *Ger* districts existed around Ulaanbaatar and other urban centres

⁴ Interviews with several migrants in a ger district of Ulaanbaatar (31 March 2013).

(Humphrey, 1978, p. 142), although they were significantly smaller than they now are around Ulaanbaatar.

Since the 1990s, however, the pace of demographic growth in Ulaanbaatar has fastened (see **Error! Reference source not found.**). Ulaanbaatar's population grew by 3,700 per year in the 1930s and 1940s, by 12,000 per year in the 1950s to 1980s (fostered by industrial and administrative growth), and 24,000 per year in the 1990s, and by 39,000 per year in the first decade of the 21st century,⁵ largely because of large internal migration flows. Several factors explain, at first sight, the sharp acceleration of internal migration since the 1990s. On the one hand, the new Mongolian constitution recognized the freedom of movement.⁶ On the other hand, the new political regime adopted a "resolute urban prioritization" (Bruun, 2006, p. 162), which was, for the most, limited to Ulaanbaatar. While the socialist government had understood the necessity of small urban centres for a balanced geographic development, the "Age of the Market" (an expression used by Mongols to depict the post-socialist era) created no economic opportunities in urban centres outside Ulaanbaatar, leading to a growing geographical and social divide (Campi, 2006, p. 50). Consequently, urban demographic growth has overwhelmingly been concentrated in Ulaanbaatar during the last two decades (see **Error! Reference source not found.**).

Beside the migration toward Ulaanbaatar that is the focus of this article, two concomitant migration trends deserve to be mentioned briefly here, if only because they

⁵ According to the demographic data by province of the National Statistical Office (2013). These data do not distinguish the impact of internal and international migration from the impact of demographic growth.

⁶ Constitution of Mongolia (13 January 1992), article 16(18).

partly respond to similar causes. One is the migration of tens of thousands of artisanal miners, often in the vicinity of industrial mines. Artisanal mining tends to attract less public attention than rural-to-urban migration, perhaps because of the remote location where it takes place, despite dreadful conditions. The other concomitant migration trend is a migration of herders, with their flock, to more central provinces (e.g. Central and Khangai *aimags*) or closer to small urban centres, accompanied by a tendency to sedentarisation (Lkhagvadorj et al. ,2013, p. 85). Many herders thus gain access to markets and to public services.

3. The dominant causal narrative: blaming the nature and the international community

A causal narrative that tends to dominate in Mongolia explains the migration toward Ulaanbaatar in connection to a meteorological phenomenon, the *dzud*, and often relates the acceleration of migration in the last two decades to the consequences of climate change. This section reconstitutes this argument by first explaining the influence of *dzuds* on migration, and then the influence of climate change on *dzuds*.

3.1. *Dzud* and migration

Ask any Mongol why people migrate to Ulaanbaatar, and it is likely that they will mention a specific local meteorological event: the *dzud*. A *dzud* is a compound event. First, dry summer conditions impede the growth of grass and weaken the livestock. Then, extreme winter conditions result in the death of large proportion of livestock. These winter conditions can consist of extremely cold temperatures or late Spring (*khuiten* or “cold *dzud*”), of heavy snowfall covering the pasture (*tsagaan* or “white *dzud*”), of a layer of ice created by the re-freezing of melted snow that prevents the livestock from grazing (*tumur* or “iron *dzud*”), of a shortage of water (*khar* or “black *dzud*”), or of several of these phenomena (*khavsarsan* or “combined *dzud*”) (e.g. Field

& IPCC, 2012, p. 500; Templer, Swift, & Payne, 1993, p. 107). While some *dzud* affect only small portions of Mongolia's immense territory, the whole of its territory can also be affected.

Dzud is not a new phenomenon. Plenty of historical sources describe it at different historical periods, in Mongolia and elsewhere in Central Asia (e.g. Lansdell 1885 p. 318, Khazanov 1978 p. 121). The Book of the Later Han recounts that, in 45 CE, the Xiongnu people living in today's Mongolia suffered from repeated droughts as a consequence of which "[t]wo thirds of its people and domestic animals died of hunger and illness" (cited in Fang & Liu, 1992, p. 151). The 1945 *dzud* remains the worst in contemporary memory: it led to the death of one third of the national livestock (Z. Batjargal, 2001, p. 41).

Many report that *dzud* has become more frequent and more severe over the last decades. In 2000, 2001, 2002, and again in 2010, most of the territory was hit by severe *dzuds* (see **Error! Reference source not found.**). The difficulty with this observation, however, is that, because of the complexity of the phenomenon (the combination of several variables in non-linear ways), there is no objective indicator of the existence or the severity of a *dzud*. Whereas the intensity of a cyclone can be estimated by the strength of the winds, the severity of a *dzud* is only measured by its effects on human societies and, more specifically, by the loss of livestock. Yet, the loss of livestock depends not only from environmental factors, but also from social vulnerability to these factors. Therefore, it is not clear, on the basis of table 1, whether the physical factors conducive to *dzuds* are strengthening, or whether social vulnerability to these factors is increasing.

In any case, such sudden and structural loss of national livestock have tremendous social consequences. At least 75,000 households lost more than half of their

livestock in 2010 (Troy Sternberg, 2010). Many more encountered a situation of great economic distress: “[t]he most critical consequences of *dzud* are increased poverty and mass migration from rural to urban and from remote to central regions” (Field & IPCC, 2012, p. 502). More frequent *dzud* result in severe loss of incomes; the necessity of larger movements with an impact on health, education, and life expectancy; and labour and human trafficking issues for the destitute desperately seeking new forms of livelihood (UNDP, 2011, p. 2).

Historical studies show that *dzud* has often affected the migratory behaviour of the Mongols. The Xiongnu of 45 CE resettled in Yunyang, in today’s Chongqing municipality, central China (Fang & Liu, 1992, p. 151). On a long historical perspective, Southward migration flows toward China are correlated with drought and extreme winter conditions (Zhang, Zhang, Lee, & He, 2007, p. 405). It was even suggested that a slight climatic variation in the 13th Century precipitated Genghis Khan’s conquest of the world (Huntington, 1924, p. 391; Hvistendahl, 2012; Jenkins, 1974; Lamb, 1995, pp. 166–168).

Despite the paucity of data, there is some evidence of a statistical impact of *dzud* on migration toward Ulaanbaatar. Following the 2010 *dzud*, the registration office of Ulaanbaatar noted an increase of the annual inflow of migrants from the country to Ulaanbaatar by 40%, representing 10,000 additional migrants (see **Error! Reference source not found.**). But beside this peak effect, it is likely that successive *dzuds* have also had a diffuse effect through the pauperisation of the countryside, which may contribute to explain the high average migration rate.

3.2. Climate change and *dzuds*

Although Mongolia’s own greenhouse gas emissions have a marginal effect on the global climate, the country is severely affected by the consequences of climate change

on precipitation patterns and average temperatures. On the one hand, even though existing observations do not show a significant change in overall amount of precipitations, they show an evolution in their seasonal patterns. Mongolia has an arid climate, with an annual mean precipitation of 300-400mm per year. Most of these precipitations occur in July and August. Rainfall in the late spring and early summer are essential for vegetation growth. Yet, several studies show that winter precipitations have increased, while spring and summer precipitation decreased, and that precipitations occurred also more often through sudden and intense showers (Batima, Natsagdorj, Gombluudev, & Erdenetsetseg, 2005, p. 20; Dagvadorj, 2010, p. 99). These changes, although of a small magnitude, have an important impact on the pasture and on its ability to regenerate. Snowfall, which used to be exceptional despite the harsh and long winter, may in particular have a disastrous impact on the survival of the livestock (Zamba Batjargal & Enkhjargal, 2013, p. 299; Marin, 2010, p. 162).

On the other hand, the average temperature in Mongolia has increased three times faster than the global average over the last 70 years, by 2.1°C compared with a global average of 0.7°C (Dagvadorj, 2010, p. 98; Dulamsuren, Hauck, & Leuschner, 2010, p. 3028). It is estimated that warming increases the potential evapotranspiration (the sum of evaporation and plant transpiration) by 7 to 12% (Tsogtbaatar, 2013, p. 90). As a result, observations confirm that droughts are becoming more frequent (Troy Sternberg, Thomas, & Middleton, 2011, p. 1828). Rivers and lakes dry up, desertification and land degradation progress, and dust and sand storms occur more often (Dagvadorj, 2010, pp. 61–65).⁷ Climate change may also have beneficial effects,

⁷ Interview with T. Munkhbayar, President of the board of director, United Movement of Mongolian Rivers and Lakes (27 March 2013).

in particular through the lengthening of the growing season, but these advantages rarely balance the constraint of water shortage (Dagvadorj, 2010, p. 179; Marin, 2010, p. 166). In most places, by exacerbating the risks of drought and decreasing the yield of the grassland, climate change significantly increases the frequency and the severity of *dzuds*. In some relatively limited areas of the extreme West of the country, however, increase runoff has been observed because of the melting of Mongolia's few glaciers, possibly for the benefit of a small population of herders (Marin, 2010, p. 166; Mongolia, 2009, p. 179).

The increase frequency and severity of *dzuds* in most of the country took place and was understood on the background of a growing international movement calling for a protection of "climate refugees." The climate-migration nexus had mostly been discussed by reference to "sinking" island states such as the Maldives, Kiribati and Tuvalu, or overpopulated coastal areas, for instance in Bangladesh, Vietnam or Nigeria (see generally Piguet & Laczko, 2014). If drought could be an issue, it was mostly in hot countries such as the African Sahel or the horn of Africa. Mongolia was quite the opposite: a cold and dry country, where, at first sight, a bit of warming should not have been a bad thing – except for the increasing water stress. Yet, in 2010, the government of Mongolia held a public cabinet meeting in the Gobi desert, echoing the communication strategy of the government of the Maldives that, the previous year, had organized a highly-mediatised under-water cabinet meeting to highlight the risk that the Maldives may be submerged by sea-level rise.⁸ In its statement, the government of Mongolia called "the attention of the world community to the fact that Mongolia's traditional nomadic civilization based on pastoral animal husbandry [was] likely to be at

⁸ "Maldives Cabinet makes a Splash" BBC (17 October 2009).

risk by mid of 21st century” as a consequence of climate change (Dagvadorj, 2010, p. 90).

For a country that continues to receive large funds as aid to development and is highly interested in the opportunities offered by international climate finance, using a rhetoric of “climate migration” participated to a fund-seeking strategy (see by analogy: Florémont, 2012). This rhetoric also serves to absolve Mongolia’s government from its responsibility by pointing to extraneous causes. Yet, one of the important flaws of the concept of climate migration is that it ignores the fact that migration is always a multi-causal phenomenon: climate change does not cause migration in abstract circumstances, but only, at most, in a set of particular social, political, economic, demographic and cultural settings (See e.g. Mayer, Boas, Ewing, Baillat, & Das, 2013). The consequences of any *dzuds*, or of the increasing frequency and severity of *dzuds* caused by climate change, are contingent to the social vulnerability of the population exposed to them. Even once a *dzud* has occurred, causing a dramatic loss of livestock, the prevailing settings in a particular society at a particular time determine the ability of destitute herders to reconstitute a flock and resume their activity, or their inclination to abandon their traditional livelihood and to settle, not temporarily to the closest small urban centre as they have done in such circumstances for centuries, but rather permanently, in the insalubrious suburbs of the capital city. In other words, the incapacity of nomadic animal husbandry to cope with *dzuds* in the context of climate change reveals the failure of a socio-political system just as much as it results from increasingly challenging environmental conditions.

4. An alternative causal narrative: unsustainable development in Minegolia

This section exposes an alternative causal narrative, highlighting the influence of development policies adopted since the early 1990s, following the brutal transition from

a socialist regime. It first highlights the political causes of overgrazing that increases the vulnerability of herders to *dzuds*, and then discusses the general political disinvestment from policies that support a geographically-balanced national development and its ideological roots.

4.1. Overgrazing and migration

In 1990, following the dissolution of the USSR, Mongolia turned suddenly from a state-control economy to a capitalist one, and from a regime of strict control to one of individual freedoms. The massive aid that USSR had offered to Mongolia, partly as a way to ensure the forthright support of Mongolia as a stronghold at the border of China, represented about a third of its GDP. The sudden interruption of this aid and the loss of market of Mongolia's exports made Mongolia's economy havoc (e.g. Lkhagvadorj et al., 2013, p. 83), bringing the country in several years of severe economic recession (see **Error! Reference source not found.**).

Hundreds of thousands of urbanites, in particular those living in the small urban centres outside Ulaanbaatar, suddenly lost their job in public administration or light industries that largely relied on the financial support of the USSR. During the early 1990s, many of these jobless urbanites tried to take advantage of the on-going privatisation of the livestock to make a living as herders (Sneath, 2006, p. 154). From a third in 1989, the agriculture represented half of the national labour at the end of the 1990s (Griffin, 2001b, p. 81). While some had grown up as herders, many did not have the experience necessary to face harsher winters, all the more as the winters of the 1990s appear to have been relatively mild; lack of experience was an additional factor of vulnerability for new herders during the disastrous *dzud* of 2000 (Z. Batjargal, 2001, p. 10; Janzen, 2005, p. 80).

For the agricultural sector more than any other, the regime change brought a “radical break with the past” (Sneath, 2012, p. 461). Mongolia’s nomadic livestock husbandry is all but a random wandering. For long, a feudal regime organized the ownership of the livestock, but also grazing rights (Fernández-Giménez, 1999; Natsagdorj, 1967; Sneath, 2003). After the complete failure of a first attempt in the 1930s (Bradsher, 1972), the socialist regime re-organized the national agricultural system through a progressive collectivisation in the 1950s and 1960s, with the creation of *negdel* (pastoral collectives) that comprised mobile brigades and sedentary groups living in small urban centres (Sneath, 2003, p. 443). A complex but resilient structure was achieved in the 1970s to 1980s to provide for a nation-wide pooling of risks, guaranteeing not only a regular salary to everyone in spite of weather hazards (in particular *dzuds*), but also for the production and distribution of fodder, including contingency stocks to be used in case of *dzud*, and an insurance system covering *negdels* against substantial losses (e.g. Humphrey, 1978; Sneath, 2003). As a result, relatively few animals were lost despite several difficult winters, in particular in 1977 (3% loss) (Farkas & Kempf, 2002).

The sudden regime change of the 1990s put an end to this tightly organised system. It led to a collapse of the crop and fodder production system, from the high levels achieved in the 1980s to virtually nothing (see **Error! Reference source not found.**), thus removing a safety net for herders when a summer drought reduced the yield of certain pastures (Konagaya & Maekawa, 2013, p. 19). The distribution of the remaining fodder production could not be insured because of the disengagement of the state, all the more as the price of fuels was soaring. Overall, for the first time in Mongolia’s history, in contrast to the socialist state-led economy but also to the previous feudal regime, herders were left alone, “self-employed freelance individual

proprietors, ... 'free' herders in the market economy" (Maekawa, 2013, p. 235).

Nomadic husbandry requires regulation, but, while the new Mongolian constitution excludes a private ownership of the pasture,⁹ no alternative regulatory framework has been adopted to regulate agricultural practices, despite long discussions on a regulation of the usage of pastureland and numerous recent "experimental" regimes (M. Fernandez-Gimenez, Kamimura, & Batjav, 2008; Kamimura, 2013; Konagaya & Maekawa, 2013; Myadar, 2009; Ojima & Chuluun, 2008).

These new circumstances led to three important transformations in the practice of nomadic animal husbandry in the "Age of the Market," which made it environmentally unsustainable. Firstly, the number of livestock soared, from a regulated population of around 22 to 25 million animals in the last socialist era, to reach absolute historical records of 33 million animals in 1999 and 44 million animals in 2009 (see **Error! Reference source not found.**). Only partly explained by the temporary presence of new herders in the 1990s, this transformation is largely due to an increase in the size of individual flocks, driven by a politico-economic regime encouraging production without regulating the use of natural resources (Saizen, 2013, p. 215), as well as, partly, in a growing sense of economic insecurity in the context of rapid inflation where, despite the significant risks of systemic loss, livestock became a form of capitalisation (Lkhagvadorj et al., 2013, p. 83).

Secondly, the composition of the livestock underwent important changes. Mongolian flocks are traditionally composed mostly of muttons, goats and cattle, with a small proportion of camels and horses used mostly for domestic needs such as transportation. As Mongolia lost its previous commercial partnerships and opened to

⁹ Constitution of Mongolia (13 January 1992), article 6(3).

international markets, cashmere became seen as an easy source of much-needed source of international currency (Lkhagvadorj et al., 2013, p. 86; Maekawa, 2013, p. 236). Compared with other livestock products, cashmere could easily be transported over long distances in spite of poor infrastructures as it is non-perishable (compared with dairy products) and has a high value/weight ratio (compared with wool) (Mori, 2013, p. 248). As a consequence, the proportion of goats soared from 19% of the livestock in the 1980s, to around 45% since 2004; absolute numbers quadrupled (see **Error! Reference source not found.**).

Thirdly, the political and economic dynamics at play in the last two decades have also accelerated a process of sedentarisation (e.g. Campi, 2006, p. 24). Because the land use rights are not well protected, some herders are reluctant to move, as their pastureland might be used or grabbed by other herders. In addition, the interruption of many services adapted to nomadic life – from mobile health brigade to boarding schools – and the increase of the price of oil pushed many herders to settle close to small urban centres all year-long. Lkhagvadorj et al. estimate that two thirds of the herders stopped or significantly reduced their seasonal displacement (Lkhagvadorj et al., 2013, p. 85). To access to the market, many herders moved to central regions of the country.

Remarkably, none of these changes – the increase of the size of the livestock, the concentration on cashmere production and sedentarisation of herders – resulted from conscious political orientations, but rather from the lack of a political vision. Their combination led to a severe overgrazing of Mongolia's pastureland (Yamamura, 2013, p. 4), which significantly increased the vulnerability of herders to *dzuds*. It makes no doubt that the present size of the national livestock exceeds the capacity of the Mongolian pastureland to support extensive animal rearing on the basis of the existing agricultural practices (Maasri & Gelhaus, 2011; T. Sternberg, 2008). Goats have a

greater impact than sheep or cattle on the grassland because they eat the roots of graze, which impedes its regeneration, and their sharp hooves damage the pasture (e.g. Maekawa, 2013, p. 177). Likewise, prolonged stay in areas of settlement, in particular close from small urban centres and in central regions, results in locally severe overgrazing (Fujita & Amartuvshin, 2013, p. 26). Overgrazing is far from being an issue specific to Mongolia: similar dynamics – increase in the size and change in the structure of the livestock and settlement of the herders – have led to pasture degradation in most countries of the region, in particular in similar contexts of political reforms (Humphrey & Sneath, 1999).

This transformation of the livestock husbandry can be interpreted by reference to the theory of the “Tragedy of the Commons,” according to which unregulated rational individual strategies result in the depletion of common resources (Hardin, 1968). The settlement of herders during the last two decades, for instance, may result from a lack of cooperation as the costs of displacements are born by the household whereas advantages such as the regeneration of the winter pastureland benefit the community (Lkhagvadorj et al., 2013, p. 83; Mearns, 1993, p. 75). Yet, private ownership is not necessarily the best way to avoid a Tragedy of the Commons. Nomadic herders are nomads because they need a flexibility in the use of pasture, in particular in time of *dzud*, and private ownership would be unable to fulfil this need for flexibility. A more complex regulation is needed, which may for instance consist in a regime of rangeland co-management or a regulation of herders’ seasonal movements (M. E. Fernandez-Gimenez, 2002).

Overgrazing can be analyzed as the consequence of the collapse of the regulatory and support system upon which nomadic livestock husbandry relied during the socialist era and before (Barfield, 1993, p. 214; Natsagdorj, 1967).

Overgrazing made the herders much more vulnerable to *dzud*, all the more because of the sudden disruption of the national system of production and distribution of fodder. Whereas Mongolia witnessed no severe *dzud* affecting its whole territory during the 1990s, the *dzuds* of 2000, 2001 and 2002 were brutal wake-up calls that showed the unsustainability of the new (dis)organisation of the agricultural sector. Even where climate change had a positive impact, namely in a few mountainous areas in the extreme West of the country where earlier snow melting and increased flow of water from the glaciers improved the yield of the pasture, Lkhagvadorj et al. (2013, p. 88) report that the permanent settlement of many herders in their summer pasture to avoid land-grabbing had progressively led to severe overgrazing.

4.2. The political disinvestment for geographically-balanced national development and the new urban ideology

Mongolia has received large amounts of official development aid, representing roughly 15% of its GDP in the 1990s and 10% in the 2000s¹⁰: this is a lesser proportion than what it used to receive from the USSR (up to a third of its GDP), but still a fair level of international support for a lower middle income country. Yet, just like international investments, international development aid has largely concentrated in either the mining sector (e.g. infrastructure development, vocational training) or in Ulaanbaatar (e.g. environmental protection, energy production, health) (Bruun, 2006, p. 171). McKinley estimates that no more than a twentieth of official development assistance received in Mongolia was directed to agricultural development during the 1990s: “rural development was not a priority because, in part, poverty reduction was not a priority” (2001, p. 181). Inequalities soared as a consequence of such policy orientations. The

¹⁰ Statistics of the World Bank, 2013.

GINI index (a reflection of income inequalities) seems to have increased from 30 in 1998 to 37 in 2008 (UNDP, 2011, p. 18).¹¹

In this context, there are two complementary analyses of the incentive to displacement, putting emphasis respectively on the “push” or “pull” factors of migration. On the one hand, some argue that migration follows from the paucity of jobs in the countryside and the lack of basic services. Indeed, significant quantitative and qualitative evidence shows the deterioration of basic services in the countryside, especially services that respond to the specific needs of herders, from schools boarding (Sneath, 2006, p. 155) to mobile health brigades (Tanya Medvedeva, 1996, p. 182) and even law enforcement (Bruun, 2006, p. 174). In addition, transportation costs have significantly increased due to rising oil prices, high inflation, and scarcity of vehicles, making access to services or market to sell agricultural products more difficult (Griffin, 2001a, p. 64; Mori, 2013, p. 248). As explained above, these factors pushed herders to concentrate and settle near small urban centres and in central regions, causing overgrazing (Lkhagvadorj et al., 2013, p. 88), just as much as it pushed other herders to abandon livestock husbandry altogether and to move to Ulaanbaatar.

On the other hand, other observers – in particular those who are more prone to defend Mongolia’s development policies – rather put forward the economic attraction of Ulaanbaatar (e.g. Badarch, Batsukh, & Batmunkh, 2003, p. 10).¹² The conjunction of a massive support to development in the capital city and the mining boom of the first decade of the century have led to a rapid growth of the national income, with a record of

¹¹ Statistics of the World Bank, 2013.

¹² Interview with a senior officer in the local office of a multilateral development bank in Ulaanbaatar (9 April 2013).

17.5% growth of the gross domestic product in 2011 (see **Error! Reference source not found.**). Since 2004, the mining industry represents a greater share of the GDP than agriculture; mines now account for more than a third and will soon represent half of the national income.¹³ Yet, this growth has seemingly benefited to a urban elite of Ulaanbaatar much more than to the population living in the countryside, and only marginally to those living in *ger* districts surrounding Ulaanbaatar. For others, absent substantial redistribution, the mining boom meant little good, as it came with high inflation and, by appreciating the currency on international markets, decreased the international competitiveness of agricultural exports, in particular cashmere. Consequently, the “pull” factor toward Ulaanbaatar is largely correlated to the “push” factor from the countryside: both result from a political orientation in support of the development of Ulaanbaatar rather than a more geographically-balanced development.

While the growth of the extractive industry benefitted to the development of Ulaanbaatar, it also impeded rural development in several direct ways (generally: Suzuki, 2013, pp. 279–285).¹⁴ Mines and herders are sometimes in direct competition for land use, which raises important justice concerns regarding the expropriation of herders whose tenure is not clearly recognized. This, however, only concerns relatively few herders. More often, herders are affected by the environmental impact of mines. Extraction uses significant quantities of water, a resource essential to herders. There are disputes about the compliance of some extraction companies with their obligations to use exclusively deep-ground water as opposed to surface runoffs and regarding their actual impact on the quality of surface water. Moreover, mining operations and the

¹³ Statistics of the National Statistical Office (2013).

¹⁴ Interview with D. Sukhgerel, Executive Director, Oyu Tolgoi Watch (8 April 2013).

transportation of the minerals by trucks result in damage to the pasture and in significant emissions of dust. For lack of road or because of their poor maintenance, thousands of trucks drive on the steppes every day. Some large mines have built private roads with heavy tolls that truck drivers from other companies usually do not want to pay. Extraction may also result in chemical pollution, which is particularly problematic given that most of Mongolia's territory is constituted by endorheic basins (closed drainage basins that do not allow any outflow of water to oceans, where chemical pollutants are not naturally "flushed" away from the ecosystem). Chemical pollution results in particular from the frequent use of mercury and arsenic in artisanal gold mining, despite some recent efforts by national authorities to regulate such practices.

More fundamentally, the migration of herders toward Ulaanbaatar also relates to deep-rooted ideological forces. For most Mongols, including at least the young generations of herders, the modern life of Ulaanbaatar exerts a strong cultural attraction as the *ville lumière*, the symbol of modernity. In the countryside, since the 1990s, the youngsters learn urban values and wear "modern" clothing at school. The dominant credo is that, as Bawden already put it in 1968, "[i]f ... the Mongols are to integrate themselves in a world whose uniform culture demands factories, farms and cities, then nomadism will have to disappear" (1968, p. 387; also Salzman, 2004, p. 33). The new herders of the early 1990s reportedly brought with them some of the perks of urban life: satellite dishes, cell phones, etc. (Campi, 2006, p. 49). Today, successful herders buy a truck and a TV and plug the latter to a system of solar panels and batteries. TV programs, however, promote an urban way of life at odds with the experience of herders. Bruun notes that "attitudes have changed along with the continued denigration of rural life since independence" (2006, p. 177), and herders do not resist the urban aspirations of their children as strongly as previous generations did. It might be that

herders themselves are losing confidence in the relevance of their mode of life. They observe the degradation of the pasture and may have little hope of significant improvements (Lkhagvadorj et al., 2013; Raleigh, 2010). Alcoholism is progressing in rural areas (Morris & Bruun, 2005, p. 169) and the herders' stewardship of their land has diminished: waste, overhunting and accidental bush fires are becoming serious issues.

A similar modernist culture dominates among the elites of Ulaanbaatar, largely converted to a strong neoliberal ideology fostered by a revanchist reaction to the socialist regime. The city's accelerated development in the 2000s has deepened the gap between nomads and urbanites by providing a "relatively modern technically-oriented ... populace of bureaucrats and administrators with little industrial base and almost no agricultural resources" (Campi, 2006, p. 50), while new trade partners (in particular South Korea, Japan, the United States) cajoled a supportive urban elite to facilitate the negotiation of large mining contracts. In the centre of Ulaanbatar, it seems to be a common view that the dwellers of *ger* districts are unwilling to work, that, as a high-ranking officer in a public planning agency explained, "working represents too much burden for them,"¹⁵ or that these migrants were simply "waiting for the mining wealth to somehow spill over them."¹⁶ Individual responsibility in a free market economy is put forward to mask the political responsibilities for the economic exclusion of the migrants. Many are in favour of a tax on arrival as a disincentive against migration that,

¹⁵ Interview with C. Khashchuluun, former Chairman of National Development and Innovation Committee of Mongolia (15 April 2013).

¹⁶ L. Sumati, cited in D. Levin, "Wealth Rises in Mongolia, as Does Worry" *New York Times* (15 July 2012).

they believe, would be compatible with the constitutional provision on the freedom of movement and with their own belief in individual freedoms.

Migration, in itself, is not a social issue. All societies comprise migrants; migration is an essential social adjustment strategy to changing circumstances. The uncontrolled flow of internal migrants raises social issues such as unemployment and an increased stress on limited social resources in Ulaanbaatar, but it also reflects graver social issues at the place of origin, a fruit of the massive disinvestment from rural development (Bruun, 2006, p. 174; Sneath, 2006, p. 156). For the great many Mongols who do not benefit from the mining boom, either the herders, the dwellers of *ger* districts or those who live in the centre of Ulaanbaatar but are heavily affected by rising prices and degrading public services, the transition to the “Age of the Market” only affirmed civil and political liberties at the expense of economic and social entitlements. If nomadism is bound to disappear, alternative livelihood must be provided for the nomads. By failing to create an environment conducive to sustainable agricultural development while also failing to offer economic opportunities to migrants within the capital’s thriving economy, the government of Mongolia provides no place for destitute herders. If Ulaanbaatar cannot integrate so many migrants so quickly, then other options exist, including some support to what Campi describes as a “smarter nomadism” (2006, p. 50) or the development of light industry in small urban centres, at least as ways to slow down internal migration.

5. Climate change-induced or regime change-induced migration: causal attribution and political consequences

Are the migration flows observed in Mongolia, from the countryside to Ulaanbaatar, induced by climate change or by regime change? A literary and somewhat simple interpretation of the concept of climate migration would suggest that the two narratives

presented in the previous sections – a climate migration narrative and an alternative narrative emphasizing the responsibilities of unsustainable development policies – are incompatible. This, of course, is not the case. Migration always results from multiple simultaneous circumstances. Neither climate change alone, nor regime change alone suffices to determine whether and how migration unfolds. Although the concept of climate change highlights the relevance of diverse effects of climate change on migration, this concept is also partly fallacious, as it suggests that climate change can be *the* cause to migration, or at least main cause, the cause that needs to be taken into consideration while other causes (e.g. political circumstances) can be omitted without major analytical loss. Such claims come, most of the time, without any attempt at justifying them. The proponents of the concept of climate migration highlight that climate change has an influence on migration, but they neglect to justify why this influence matters more than any other factor.

Russell, in the epigraph of this article, highlights that causality may cause harm. As Calum Nicholson recently admonished, “potentially more is lost than gained when discussion and debate in both academic and policy contexts fail to begin by reflexively interrogating the specific forms of causal reasoning that are implicit in any attempt to substantively analyse the impact of climate change on any particular ... societal variable” (Nicholson, 2014). What is lost in the simple causal narrative suggested by the concept of climate migration, on a descriptive perspective, is an account of other, concomitant causes. By blinding us, narrowing our attention to one specific cause of migration, the concept of climate migration obstructs mental paths toward a more complete engagement with the simultaneous circumstances under which migration happens.

From a governance perspective, at the most basic level, it matters to identify “problems” and “solutions” to address them (Kingdon, 1995, p. 87). Yet, the concept of climate migration misidentifies both the problem and the solution. On the one hand, migration is not a problem as such: it is, to the contrary, a normal social process, present in all societies at all times, and whereby individuals and communities adjust to changing circumstances or pursue their natural Wanderlust. The problem that the concept of climate migration seems to highlight, in the case of Mongolia, is the existence of a set of circumstances as a result of which a certain population is so to say caught between a rock and a hard surface, with its fundamental rights and inherent dignity being protected neither in the place of origin, nor in the place of destination. It is inherently the problem of a widening social gap and of a lack of redistribution policies (or, to some extent, of distribution of the revenues of the extractive industry), a problem that climate change exacerbates as it affects herders more than urbanites, resulting in a situation whereby the sheer fact of being born in the countryside results in a deprivation of the protection guaranteed to the population living in the centre of Ulaanbaatar.

On the other hand, once the problem is rightly defined, presumably the lack of protection for potential and actual migrants, one needs to characterize the best entry points for possible solutions with regard to political feasibility as well as efficiency. The simple causality suggested by the concept of climate migration leads to an impasse because climate change policies, at least from the point of view of the Mongolian government, is unlikely to offer any realistic and efficient solution. A drastic limitation of greenhouse gas emissions or development of large carbon sinks within Mongolia would have very little global effects, and the government of Mongolia is not a critical player able to decisively influence the mitigation policies conducted in other states. In fact, even an immediate and drastic decrease in global greenhouse gas emissions would

have little immediate consequences on environmental conditions in Mongolia because climate change results from the stock of greenhouse gas emitted in the past. At most, by highlighting the causal relation between certain harms suffered by its population and the failure of other states to prevent excessive greenhouse gas emissions within their territory, the climate migration narrative calls for a form of compensation, or at least of international financial transfers destined to facilitate adaptation. Yet, the concept of adaptation says little as to what possible solutions should be followed to protect the vulnerable populations concerned, while the state of Mongolia, making substantial gains from the mining boom, has the financial capacities to take action without immediate international support (see, regarding the economic growth of the last decade, **Error! Reference source not found.**).

Identifying the negative consequences of climate change and the duty of developed states to compensate developing ones is an important aspect of international policies. Yet, state responsibility only pleads for an inter-state compensation mechanism (Mayer, 2014). Responsibility does not provide specific solutions to the vulnerability of a population of potential or actual migrants: it is not the right solution to the vulnerability of potential or actual migrants.

Other causal accounts offer alternative entry points for response measures. For instance, the alternative narrative highlighting the causal relation between migration and unsustainable development policies suggests a number of paths that the government of Mongolia and its development partners could explore in order to offer a better protection to vulnerable populations. For instance, one path would be to better regulate the use of the pasture in order to reduce overgrazing. Another path would be to reinforce basic services in the countryside and to encourage light industry in small urban centres in order to retain potential migrants. Yet another possible path would be

to provide better protection to newcomers in Ulaanbaatar. Each of these paths faces difficulties, but none of them is clearly and absolutely unfeasible, especially given the growing financial capacities of Mongolia. It is likely that these different paths should be followed concurrently rather than alternatively, as none of them may provide a sufficient response to the protection need of a relatively vast population. Addressing national unsustainable development policies and practices could offer a number of obvious policy levers that the government of Mongolia could use to reduce the vulnerability of a population of potential or actual migrants.

Mongolia is perhaps an example where both environmental and policy factors can easily be isolated. Yet, in no case does migration result directly from environmental factors that may relate to climate change. Beyond physical exposure, the consequence of any environmental phenomenon on a population depends on its vulnerability and resilience, so that climate change may only “serve to exacerbate existing problems, functioning as a threat multiplier or one factor in a complex process of causation” (Rayfuse & Scott, 2012, p. 9). In each conceivable case, climate change is only one of the possible entry points for response measures, along with a multitude of other factors ranging from domestic development priorities to law enforcement and from economic redistribution to population control – and climate change is not necessarily the most efficient or politically feasible entry point for reform.

6. Conclusion

This case study of internal rural-to-urban migration in Mongolia highlights some of the inherent limitations of the causal claim inherent in the concept of climate migration. From a purely analytical perspective, it shows the arbitrariness of attributing migration only to climate change. In the case studied, unsustainable development policies were shown to amplify incentives to migration. In other cases, other political, economic,

demographic and cultural factors similarly influence individual decisions to migrate in one way or another, and such factors have an impact on the vulnerability of both potential and actual migrants.

These analytical limitations of the concept of climate migration impact on the conception of possible policy changes by obstructing many alternative paths for possible response measures. In the case under scrutiny, it does not appear that associating migration with climate change leads to any new insight as to possible “solutions” (beside the need for a compensation of developing states affected by climate change), whereas an alternative causal narrative suggests more feasible and efficient responses through a reform of unsustainable development policies. Likewise, for many governments, the climate migration narrative may in fact appear as a political expedient allowing for the continuation of short-sighted domestic policies.

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Table 1: Loss of livestock (compared with previous year) in years of large dzud, 1972-2012. Data from the Mongolian National Statistical Office, 2013.

Year	Evolution of the national livestock
1976	-3%
1977	-3%
1983	-5%
1984	-4%
2000	-10%
2001	-14%
2002	-8%
2010	-26%

Figure 1: Population of Ulaanbaatar, 1930-2010 (in thousands). Data from National Statistical Office, 2013.

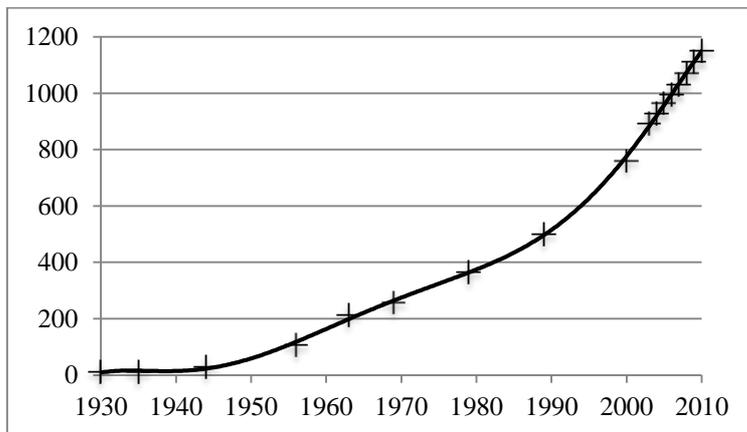


Figure 2: Repartition of the population growth, during and after the democratic transition. Data from National Statistical Office, 2013.

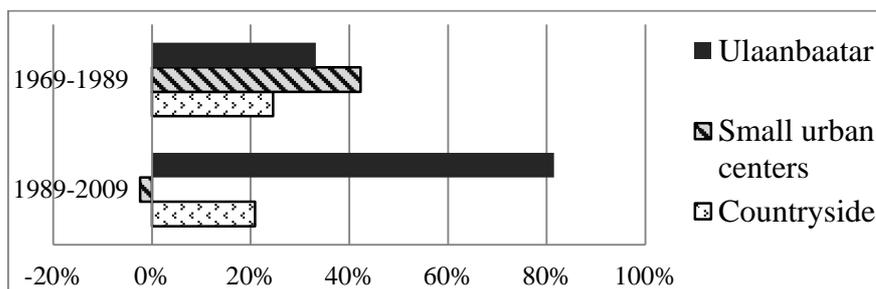


Figure 3: Registration of individual newcomers from the countryside in Ulaanbaatar (in thousands), 2005-2011, reflecting an increase following the dzud of 2010. Data from Ulaanbaatar registration office, 3 April 2013.

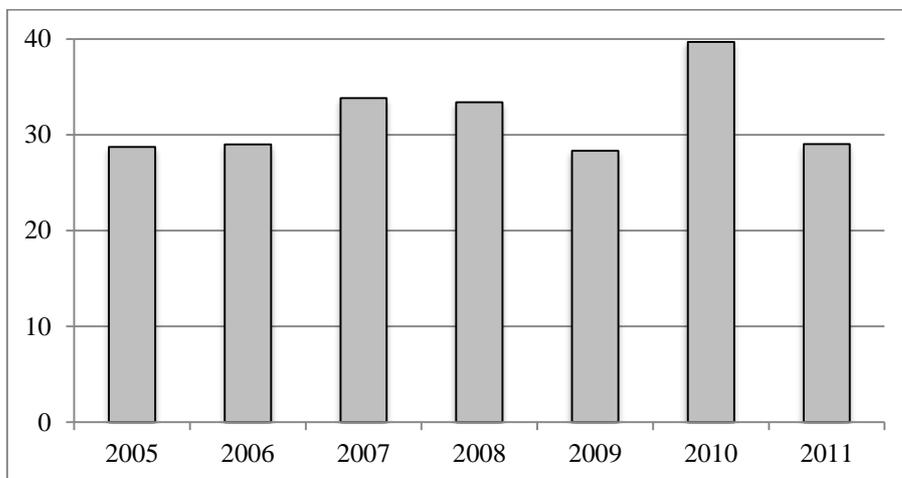


Figure 4: Mongolia's annual GDP growth, 1982-2012. Data from the World Bank, 2014.

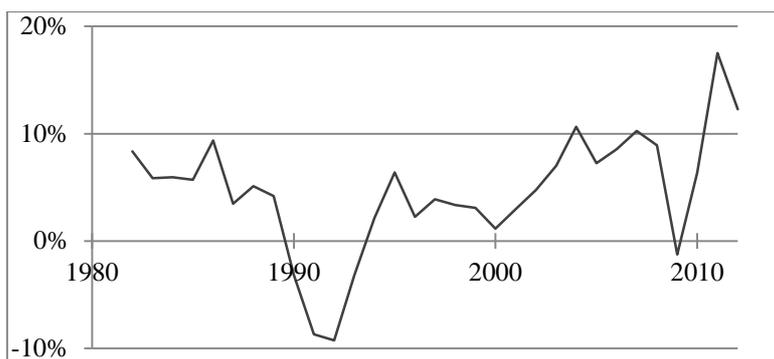


Figure 5: Evolution of annual fodder crop production, 1962-2012 (thousands tonnes).

Data from National Statistical Office, 2013.

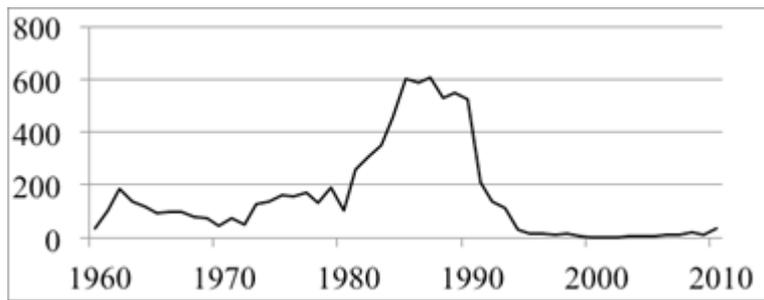


Figure 6: Evolution of the Mongolian livestock, 1970-2012 (millions of animals). Data from National Statistical Office, 2013.

