

RELATIONSHIP BETWEEN RURAL TO URBAN MIGRATION AND DZUD DISASTER IMPACT

Solongo Alгаа (Ph.D),

Professor, Population Teaching and Research Center, School of Science, National University of Mongolia

Email: algaasolongo@yahoo.com

Хураангуй

Хөдөөнөөс хот руу шилжих хөдөлгөөн ба байгалийн гамшигт үзэгдэл Зудын нөлөөллийн хоорондын хамаарлыг шалгах зорилгоор энэ дүн шинжилгээг хийсэн. Дүн шинжилгээнд ҮСХ-ноос гаргадаг макро түвшний хоёрдогч мэдээллийн эх үүсвэрүүд болон баримтын судлалын аргыг ашигласан.

Өнгөрсөн 30 жилийн хугацаанд шилжигчдийн дийлэнх нь Улаанбаатар хот руу чиглэж, нийслэлийн хүн амын гуравны нэгийг шилжин ирэгчид бүрдүүлэх боллоо. Энэ нь Улаанбаатарын хүн амын өндөр өсөлтийг мөн Монголын “хотжилт дахь ядуурал”-ыг бий болгож байна.

Хөдөөнөөс гадагш шилжих хөдөлгөөн ба алдсан малын тоо хоорондын хамаарлыг шугаман регрессийн загвараа шалгав. Орон нутгаас гадагш шилжих хөдөлгөөн нь алдсан малын тоотой эерэг хамааралтай байв ($p=0.004$). Өөрөөр хэлбэл, зуднаар малаа алдах буюу цөөн малтай үлдэж буй байдал нь малчдын хөдөөнөөс хот руу шилжин нүүх түлхэх хүчин зүйл болж байна. Түүнчлэн, хөдөө орон нутагт ажлын байр хомс байгаа нь шилжин явах гол шалтгаан болж байна. Өдөр тутмын хэрэглээгээ хангахын тулд хөдөөд орлогогүй, ажилгүй байснаас хот руу ирж хүнд хүчир ямар ч хамаагүй ажил олж хийх боломж илүү байна.

Хөгжлийн үр шимээс хүртэх, ажил эрхлэх, орлого олох, өрхийн амьжиргаа тогтвортой байх боломжууд хөдөө орон нутагт бага байна. Эмзэг болон тэгш бус байдлыг бууруулах явдал Монгол улсын хөгжлийн гол шаардлага болж байна. Амьжиргааны аюулгүй байдал, эмзэг байдалд Монгол улсын хүн амын томоохон хэсэг бүлэг үлдсэн хэвээр байна. Иймд хөдөөгийн амьжиргаанд дэмжлэг үзүүлэх, орлогыг олон эх үүсвэртэй болгох явдал амьжиргааны эмзэг байдлыг бууруулах, хөдөө нутагт хүн амаа байршуулах хөгжлийн бодлогын гол гарц болж байна.

Түлхүүр үгс: Зудын гамшиг, эмзэг байдал, малчдын амьжиргаа, малаа алдах, орлогын олон талт байдал, шилжин явалт.

Abstract

This paper examined the relationship between rural to urban migration and natural disaster *Dzud* impact in Mongolia. Secondary data at macro level from the National Statistical Office of Mongolia was used for the analysis. Existing studies underlie as the literature review.

From the last three decades, most of the movement has been towards Ulaanbaatar, with one-third of the inhabitants of the city being in-migrants, which continues to increase the share of the urban population and leads to the “*urbanization of poverty*” in Mongolia.

The analysis was undertaken to test the relationship between rural out-migration and lost livestock by applying a linear regression model. The out-migration has had a positive association with lost livestock ($p=0.004$). Lost livestock or survival with few numbers of

livestock was one of the pushing factors from remote rural to urban areas for herders. Lack of workplaces in rural areas becomes the main cause of out-migration. Job opportunities were more abundant in urban areas instead of being jobless and without income in the countryside, it was better to deal with any works, even a difficult one, to afford for their daily consumption.

The view it as an advantage compared to being jobless in the countryside, since employment opportunities enable variety of benefits from development, earning chances, and sustained livelihood of the family. Reducing vulnerability and disparity is a key developmental challenge in Mongolia. Larger segments of Mongolia's population remain as vulnerable with insecure livelihoods. Therefore, supporting rural livelihood and income diversification is one of the ways to reverse this situation through the reduction of livelihood vulnerability and retain people on the land.

Key words: Dzud disaster, vulnerability, herders' livelihood, livestock loss, income diversification and out-migration.

1. Justification

The migration was under strict control before 1990s during the socialist period in Mongolia. Since 1992, the new Constitution of Mongolia declares the “*freedom of movement*” within the territory of Mongolia; this and other reasons including socio-economic structural changes and disparity in regional development increased the internal migration.

Rural-urban disparities have deepened, significantly contributing to the internal migration and emigration of the population due to the lack of Regional development and Demographic policy in Mongolia. In the last three decades, urbanization has increased rapidly. According to the population and housing inter-census in 2015, 68 per cent of Mongolians live in urban areas. In total, 45 per cent of total population is living in the capital city of Ulaanbaatar³⁸, increase by 1.4 percentage points (or 16.6%) in the last 5 years (NSO, 2016). Most of the movement is towards Ulaanbaatar, with one-third of the inhabitants of the city being in-migrants, which continues to increase its share of the urban population and leads to the “*urbanization of poverty*” in Mongolia. In-migration has a huge on poverty and environmental problem in Ulaanbaatar. Migrants are poorer than non-migrants in terms of the consumption expenditure, access to services and their social inclusion (PTRC & UNDP, 2004).

Many people and families have moved from rural areas to cities and from cities to abroad in search of better opportunities, education and better-paid jobs. Although internal migration has eased social pressure in rural areas, it has consequently been accompanied by some adverse consequences including a shortage of qualified staff in rural areas, increased social burdens on cities and deterioration in the quality of and access to social services.

Objective of the study

This paper aims to examine the relationship between rural to urban migration and *Dzud* impact.

Hypothesis:

H₁: Rural to urban migration of herders' increases after livestock loss because of *Dzud* impact.

³⁸ Ulaanbaatar is located on 0.3% of the total territory of Mongolia.

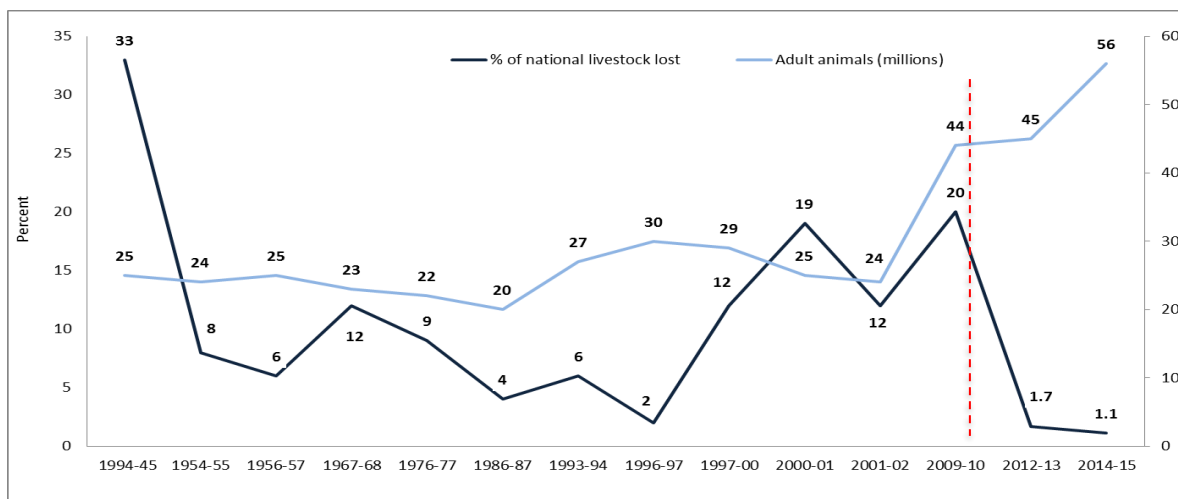
2. NATURAL DISASTER “DZUD” AND ITS AFFECT

Mongolia faces a number of problems such as global and regional climate changes, frequent natural disasters, rapid growth of livestock numbers, mining-oriented economic development, over concentration of population, and rapid urbanization. Vulnerability exists at individual as well as national levels and a substantial part of population belongs to a vulnerable group due to the exposure to natural disasters. Especially rural residents and herder households are more susceptible to disasters due to climatic changes and a number of environmental factors.

Dzud was considered as the most common disaster in Mongolia. In most cases, due to the drought in summer pasture shortage emerges and because of severe winter and snowfall, the livestock dies in extensive numbers leading to the loss of a livelihood income or declined livelihood. In rare cases, *dzud* covers the total country or the whole territory of an *aimag*, but in the past years, such occasions took place frequently.

There have been twelve *dzuds* since 1944 in Mongolia (*Figure 1*). During the last biggest *dzud* in 2009-2010, almost 20 per cent of the national livestock was dead and approximately one third of herders lost at least half their livestock being deprived of their major source of income.

Figure 1: Livestock numbers and Losses 1945-2015



Source: *Dzud 2010 ER Project Document UNDP 03 p11 NSO, 2016b*

Vulnerability of local residents to *dzud* depends on causes such as the reliance on livestock breeding as the only livelihood source, few numbers of livestock for many households, inexperienced young herders yet with abundant livestock, increasing water shortage, desertification, and soil deterioration, susceptibility of herders to depression, failure in or poor preparedness of individuals and local areas for *dzud*. Capacity to fight and overcome *dzud* is determined as moving away from the areas exposed to the *dzud*, sale of a certain percentage of livestock, preparation of hay and fodder, exchange of livestock for moveable and immovable property, coverage with an indexed livestock insurance, and the livestock risk insurance, establishment of an *aimag*, *soum* fodder and livestock protection reserve fund. As for methods of overcoming *dzud*, herders use methods including the selling of their assets to buy livestock, moving to settlements to seek for other work, to find other sources of livelihood, look for part or full-time jobs, waste collection, engagement in mining or logging or use of other natural resources, participation in re-stocking projects and programs (IFRCRCS, MRCS, 2014).

Due to *dzud* some herders completely refused to engage further in pastoral livestock breeding; thus most of them have moved to urban areas to seek for other sources of livelihood. As a result, they joined the ranks of the poor urban residents in Ulaanbaatar, Orkhon and Darkhan, replacing one problem with another, adding an extra burden to pressing issues of urban *ger* districts with limited electricity and water supply, centralized heating and waste management system.

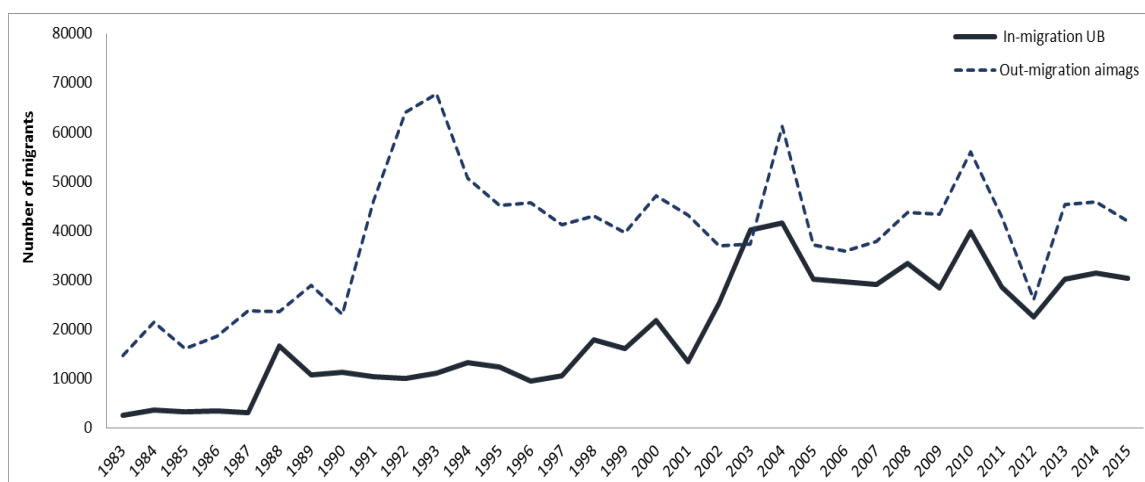
Negative consequences of *dzud* affect livelihood and well-being of herder households. Households affected by *dzud* experience the lack of income, food shortage, diseases and chronic diseases, their children dropping out of school. Herders often feel depressed and cases of suicide attempts have been evident.

On the other hand, declining livelihood of herders, their diminishing incomes affect indirectly the other economic sectors. The trade turnover goes down, the supply of meat, milk and other agricultural products decreases, their prices grow and furthermore, these impinge the inflation at the macroeconomic level. Soaring prices of common household goods, including meat had a great impact on changes in inflation level in Mongolia in the past few years.

3. RURAL TO URBAN MIGRATION AND ITS IMPACT

Dzud has resulted in some herders abandoning nomadic (or rotational) pastoralism entirely and accordingly many have migrated to urban areas in search of alternative livelihood opportunities.

Figure 2: Number of migrants 1983-2015



Source: NSO, 2016b

The largest outflow during the last two decades spans from Western region to others regions, mainly to Ulaanbaatar and to the Central region, which received most of number of migrants. Financial security, well-being or socio-economic progresses, access to information and social services are ranked as main causes of migration.

The result is often that they exchange one problem for another joining the slum dwellers of Ulaanbaatar, thereby exacerbating both their own personal problems as well as adding to the growing problem of the 'Ger District' of Ulaanbaatar with limited access to electricity and no running water, sewage or central heating. In the aspect of infrastructure, the overpopulation in Ulaanbaatar has a negative impact for decreasing quality and accessibility of public services, and increasing air and soil pollution.

4. RELATIONSHIP BETWEEN RURAL OUT-MIGRATION AND DZUD IMPACT

The analysis was undertaken to test the relationship between rural out-migration (per 1000 population) and lost livestock (percent in total livestock) by applying a linear regression model.

The outmigration had a positive association with lost livestock ($p=0.004$). The lost livestock increased by one percentage point while rural out-migration per 1000 population is increasing by 0.23 persons (Figure 3).

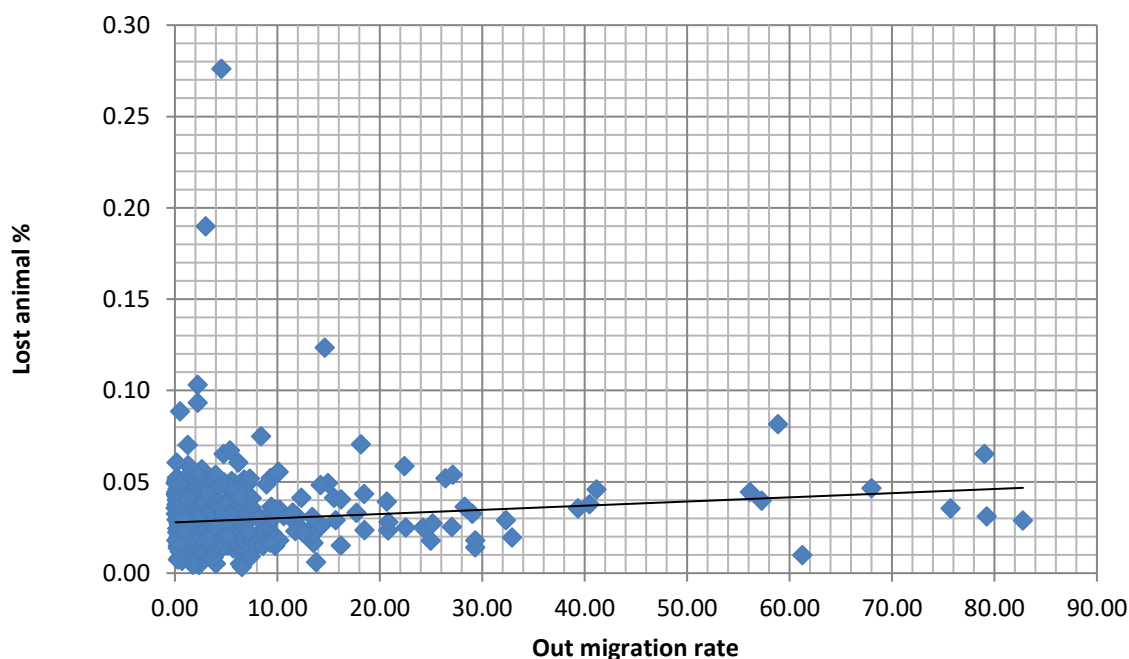
$$Y_t = 27.787 + 0.229\beta_1$$

Herein,

Y_t – Out migration rate (per 1000 population as per aimag)

β_1 – Lost livestock (percent of total livestock)

Figure 3: Relationship between rural outmigration and lost livestock, Mongolia³⁹



The other intentions of herders' migration from rural to urban areas

Nearly 2000s, the leading causes for rural to urban migration were getting closer to the market, planning on children's future, improvements in livelihood and working conditions, getting closer to relatives. However, in the recent years, the preference includes the access of benefits of development, seeking opportunities, getting closer to development the main causes of migration (PTRC, MoSWL & UNFPA, 2009). Lost livestock or few numbers of livestock were one of the pushing factors from remote rural to urban areas for herders.

Job opportunities: In rural areas where only limited diversification is evident in the economy, the income-generating opportunities are less and pastoral herding is the main source of

³⁹ Estimation was based on statistical data for period of 1990-2015 from NSO.

income. Almost 70 per cent of all herders are considered as poor and except for few government officers in the *soums* most people lack job opportunities to enable stable income.

Job opportunities were more abundant in urban areas, instead of being jobless and without income in the countryside it was better to do any work, even a difficult one, to earn for their daily consumption. The view it as an advantage compared to being jobless in the countryside, because having a job is main way to benefit from development, to earn income, to sustain livelihood of the family.

Social services: In the social aspect, many of rural families are forced to out-migrate due to the lack of social and economic development in rural area.

In Ulaanbaatar and Central region, the access to education, its quality indicators and quality of healthcare services are relatively better compared to the rural areas and regions. Children's education such as to provide children with good basic and professional education was one of the main causes of out-migration. Rural migrants benefit more on education. According to the in-migration survey⁴⁰, positives changes in lives of rural migrant, the highest percentage was taken by reported of an improvement in child's education issue and following finding job and increased income.

5. CONCLUSION

Due to *dzud* number of herders completely refused to engage further in pastoral livestock breeding and most of them have moved to urban areas to find other sources of livelihood.

Reducing vulnerability and disparity is a key developmental challenge in Mongolia. Large segments of Mongolia's population remain vulnerable with insecure livelihoods. Therefore, supporting rural livelihood and income diversification is one of the ways to reverse this situation by reducing livelihoods vulnerability and keeping people on the land. Lack of workplace and poor quality of social services in rural areas becomes the main cause of out-migration.

The rural outmigration had a positive association with lost livestock. A migration of herders will decrease if livestock loss due to *dzud* is reduced and herders' income is increased due to its diversification of income sources.

References

- Alгаа Solongo (2012). "*Internal migration consequences and its changes*", 2nd Conference of Asian Population Association, Thailand, Bangkok, 26-29, August, 2012
- Alгаа Solongo (2016). "*Climate change adaptation strategy*", working paper, unpublished, September, 2016

⁴⁰ PTRC, MoSWL and UNFPA (2009). *Mongolia: Internal Migration Dynamics and Its Consequences, survey report*, Population Teaching and Research Center, Ministry of Social Welfare and Labor and United Nations Population Fund, Ulaanbaatar, Mongolia

- IFRCRCS, MRCS (2014). *The vulnerability and Capacity assessment study, 2014*, International Federation of Red Cross and Red Crescent Societies, Mongolian Red Cross Society, Ulaanbaatar Mongolia
- NSO (2016a). *Population and housing inter-census in 2015*, National Statistical Office, Ulaanbaatar, Soyombo printing company
- NSO (2016b), *Statistical Yearbook 2015*, National Statistical Office, Ulaanbaatar
- PTRC, UNDP (2004). *Urban poverty and in-migration, survey report*, Population Teaching and Research Center, NUM and UNDP, Ulaanbaatar
- PTRC, MoSWL and UNFPA (2009). *Mongolia: Internal Migration Dynamics and Its Consequences, survey report*, Population Teaching and Research Center, Ministry of Social Welfare and Labor and United Nations Population Fund, Ulaanbaatar, Mongolia