

Environmental Change and Migration
in Inner Mongolia of China
- A Case Study from Erenhot Area

Qian Zhang

Stockholm University

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Outlines

A decorative graphic consisting of six circles arranged in a horizontal line. The first circle is solid light purple and contains the word 'Outlines'. The second circle is hollow with a light purple outline. The third circle is solid light purple. The fourth circle is hollow with a light purple outline. The fifth circle is solid light purple. The sixth circle is solid light purple.

- Background
- Ecological resettlement program
- Case study area
- Environmental problems
- Specific ecological resettlement programs
- Methodology
- Preliminary findings
- Some insights
- Future scenarios

Background

- Inner Mongolia Autonomous Region, bordering to the north with Mongolia and Russia, is the widest province in China. It is the third largest province (over 1.1 million square kilometers) with about 24 million inhabitants including many ethnic groups.
- Climate in Inner Mongolia varies a lot throughout the year. Usually summer is short and warm but winter is cold and can be very long, with frequent blizzards. The climate changes from arid to semi-humid from west to east, and to humid in the northeast. The annual rainfall ranges from 80 to 450 millimeters from west to east.



Background (cont)



- It is a vast steppe historically occupied by different minority groups who were all involved in pastoralism. Although big-scale immigration of Han peasants and reclamation of rangelands since the end of 19th century have fundamentally transformed both the demographic feature and landscape in this area, there is still around 78.8 million ha natural grassland, which is around 68.8% of the total area, and 171,500 people in pastoral area, which is around 13.6% of rural population and 7.2% of the total population, rely on herding animals as the main kind of livelihood.
- Rangelands have been contracted to each household since 1980s for a period of 30 years and most pastoralists herd animals just in their contracted pasture. Some households built up fences along the boundaries but in less populated area, over-boundary herding activities are generally acceptable among neighbors.

Background (cont)



- The fact that more frequent and stronger dust storms heating Beijing and even Eastern Asian region since the end of 1990s directed both official and public's attention to Inner Mongolia, this assumed source area. It is thought to be a manifest of land degradation and desertification.
- Desertification in this area is caused by a complex combination of historical, social and political factors as it is in other dry areas of the world, but a prevalent discourse of desertification in China puts human activities in the centre. Ecological resettlement, which involves resettling peasants and pastoralists out of the severely degraded areas, was carried out in this background.

Ecological resettlement program

- Peasants and pastoralists were encouraged, organized and subsidized to stop using their household contracted lands and to resettle in small towns or urban areas, sometimes in a newly constructed neighborhood. In this way, the degraded lands are expected to regenerate without cultivation or grazing activities. The resettled people are also expected to get better-off in their destinations.
- Being started in 1998 and accelerated in 2001, more than 6000 people have been removed out of environmentally vulnerable areas. It was planned that altogether around 650,000 should be migrated between 2002 and 2008 within the province, with the governmental budget of more than RMB100 million.



Research question

- Whether and to what extent did environmental change affect an individual or a family's decision to migrate?

Targeted groups of ecological resettlement programs generally have the rights to choose whether to move or to stay but those who choose to stay are subjected to stricter rules in resource use.

Case study area - Erenhot area

- Border city. It grew rapidly in the past fifteen years because of cross-border trade with Mongolia and Russia.
- Population increased from 8,000 in 1992 to 100,000 in 2007, half of which are floating population. The majority are Han migrants.
- Very low and fluctuated precipitation and shortage of underground water.
- The city is surrounded by a pastoral sumu (township), which is a typical temperate desert steppe.
- The sumu is composed of four gachas (village), with 519 households and 1,543 persons. The great majority are Mongols.





Case study area (cont)

- To locate the study in a previously nomadic society setting may give an inspiring insight into how people adapt to environmental change through migration. On one hand, pastoralists used to utilize migration as the main way of avoiding or recovering from natural hazards, and mobility is in their blood. On the other hand, in the present context, they have got another form of migration, saying rural-urban migration.



Environmental problems

- Pastures located in this arid, are typically with little precipitation, intensive evaporation, water shortage, strong wind and sandstorm as well as fragile ecological condition.
- The prime natural hazard in this area is drought. The average precipitation in Erenhot is around 140mm and its distribution is very imbalanced over years. Severe droughts happened in 1989, 2001 and 2005. Since 2000, the fluctuation of annual rainfall becomes even stronger.
- Dust storm occurs very often in the spring and autumn.
- Grasshopper disaster is also possible to happen after a continuous drought with high temperature
- Snow disaster seldom happens in Erenhot area, which is very exceptional, but when it comes, a bigger loss is involved. The most recent one happened in 1999.



Environmental problems (cont)

- Underground water scarcity and poor water quality are also problems in some pastoral area.
- Development activities, including road construction, petrol exploration, mining and expansion of urban area have created and have more potential to produce conflicts in terms of land use and pollution.

Specific ecological resettlement programs

- Two resettlement programs have been launched retrospectively in 2001 and 2006.
- The first program organized pastoralists to raise milk cows in a newly built village near Qiha town.
- The second one subsidized pastoralists to move to Erenhot city.



Specific ecological resettlement programs (cont)

Milk cow village

- Five years' contract with grazing ban
- Ownership of a semi-attached house and a warm shed
- Subsidy of 0.80 *yuan* per *mu* per year in the second round contract since 2006
- Subsidized loans to buy milk cows
- 20 *mu* land per household for planting silage
- Technical training for raising milk cows
- Initial free silage

Urban area

- Five years' contract with grazing ban
- An apartment
- Subsidy of 0.80 *yuan* per *mu* per year (1.20 if not live in the apartment)
- Professional training
- Facilitating in job seeking
- Exemption of fees in starting own business
- Exemption of school fees of migrant children

Methods

- Semi-structured interviews with 10 experts
- Semi-structured interviews based on questionnaires

	Gender		Age			Present locations		
	Male	Female	<30	31-40	>41	Rural	Small town	Urban
Migrants	6	9	1	3	11	15	0	0
Non-migrants	9	6	2	9	4	2	4	9

Locations of non-migrants



Preliminary Findings



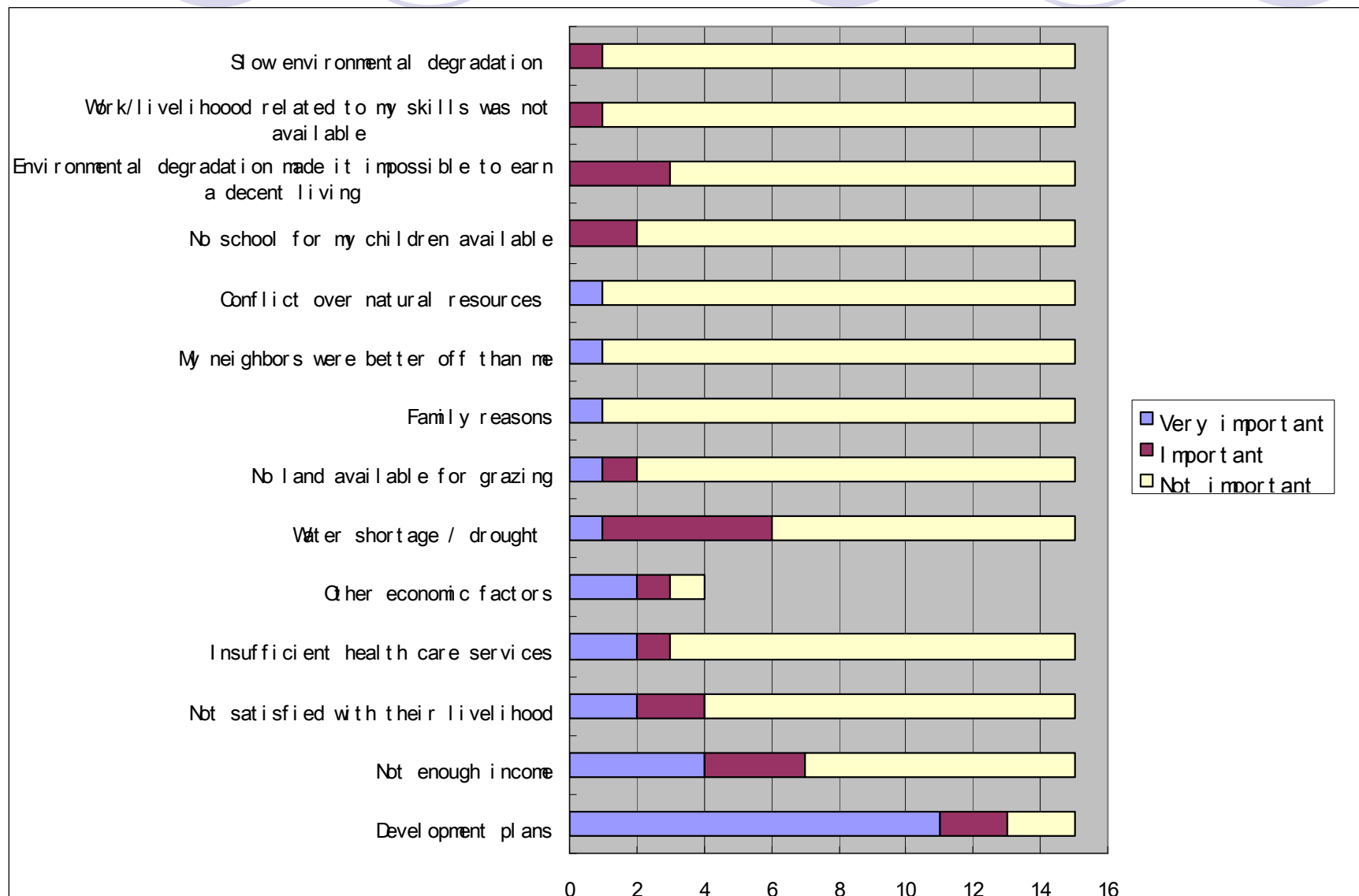
- In- and out- migrations are few in this area except those who go to schools in urban area and those through marriage.
- Ecological resettlement triggered an unprecedented scale of migration in the pastoral area but self-initiated migrations also appeared just before the first resettlement program launched. They happened just after the severe snow disaster in 1999 and drought in 2000.

Preliminary findings (cont)

- So far there are 180 households with 580 persons who signed the contract with grazing ban, of which 30 households with 86 persons move to the resettlement district in Erenhot, 96 households with 312 persons move to Erenhot or other places, 39 households with 134 persons in the milk-cow-raising villages and 15 households with 48 persons move as “second and third industry migrants”. Grazing ban has been applied to 47% of the total contracted rangeland area. However, there are still 339 pastoral households, around 65.3% of the total who use their rangelands, with population of 963 persons, about 62.5%.
- **Milk-cow-raising village:** the number of households in the has dropped from nearly 158 households, 526 persons to 94 households pastoral households with 71 raising milk cows and 28 households only for staying at present. Only 39 out of 94 pastoral households have renewed their contracts after the first five years. Besides, around 95% pastoralists still have animals in the pastoral area.
- **Urban community:** the plan is to accommodate 196 households, while so far only 30 households move in. Most migrant pastoralists choose to rent small rooms or apartments in private housing.

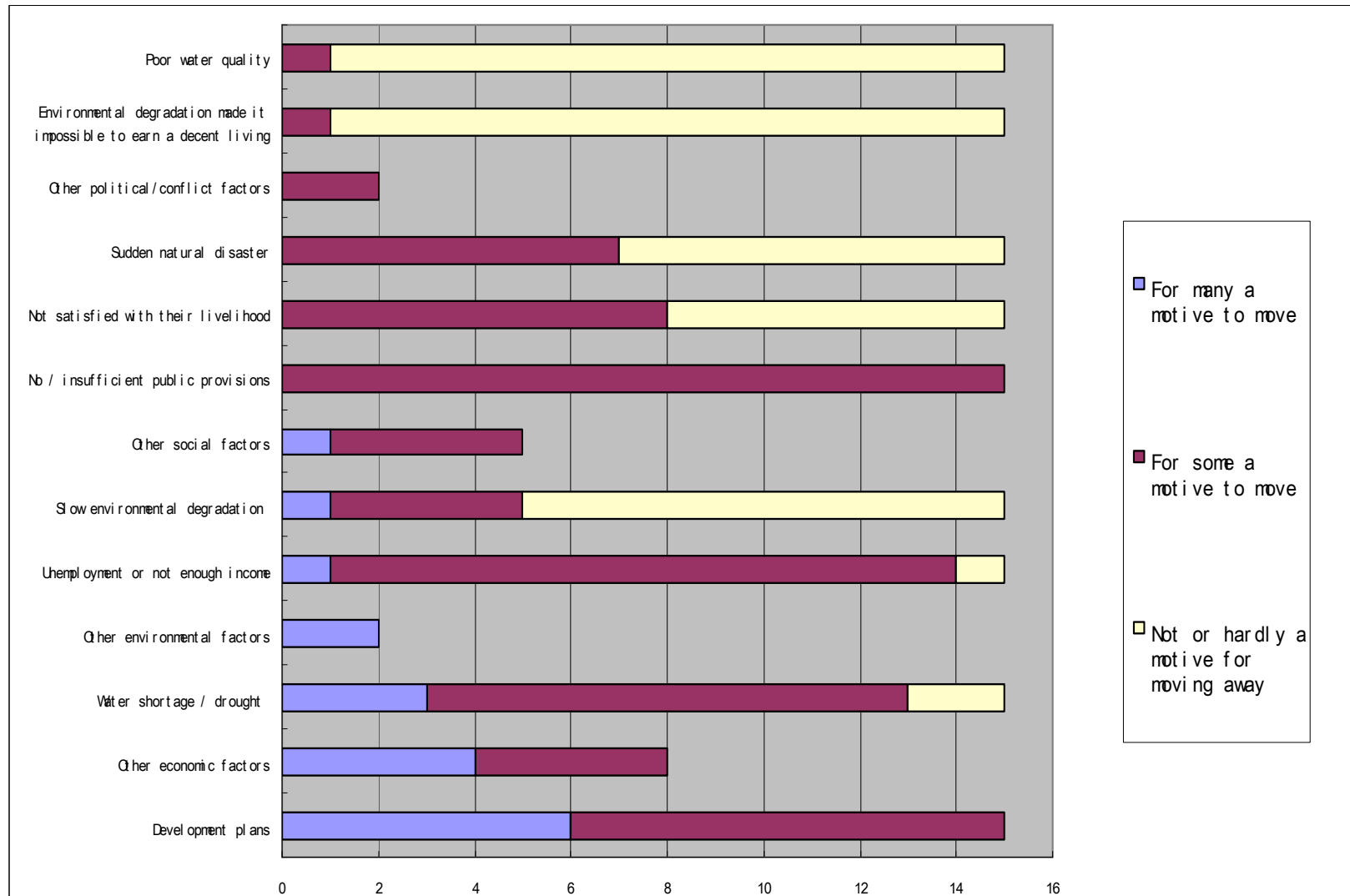
Preliminary findings (cont)

Important things in a migrant's original migration decision



Preliminary findings (cont)

Non-migrants' perceptions of main motives in migrants' migration decisions

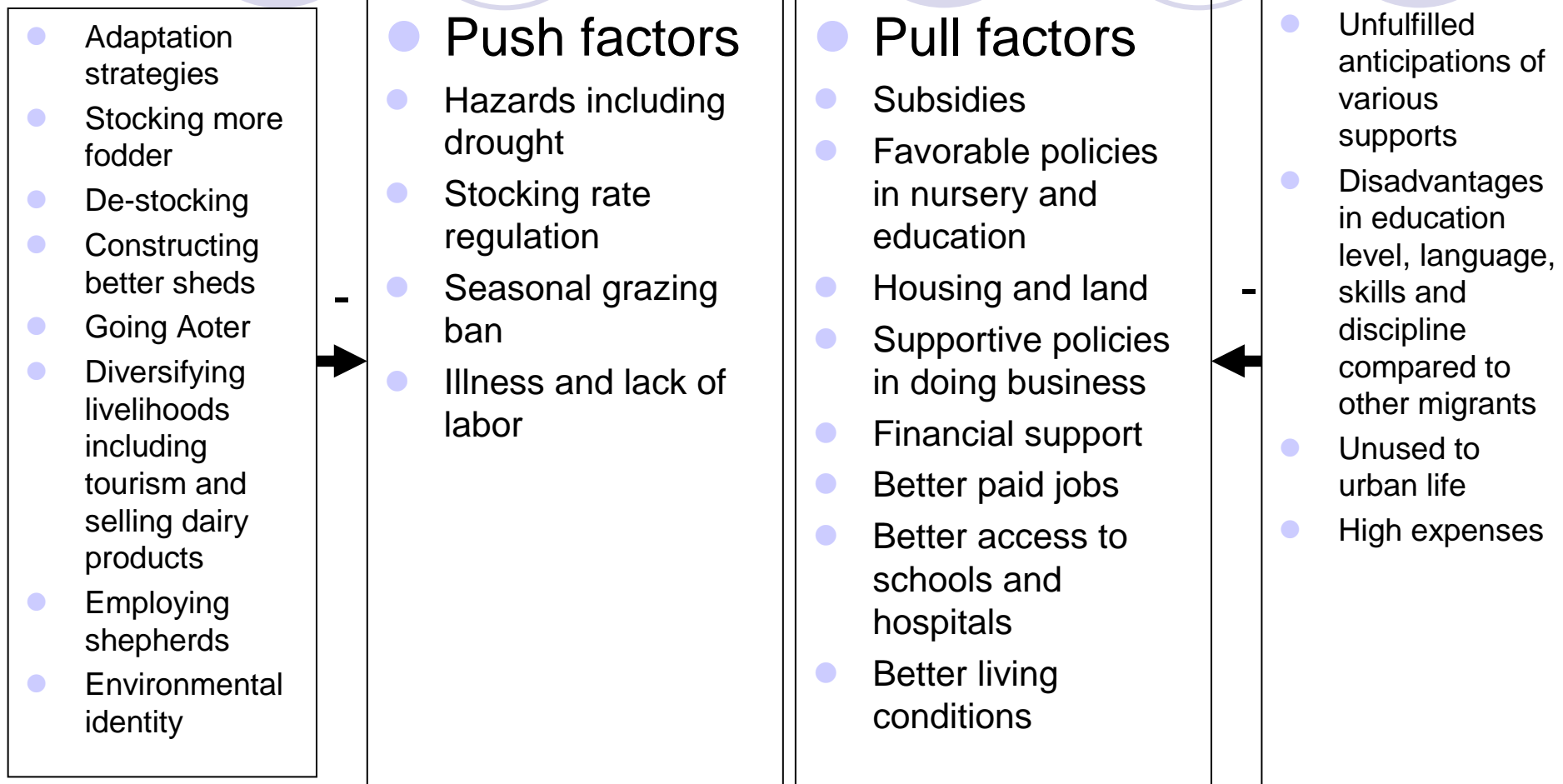




Preliminary findings (cont)

- Environmental factors (esp. development programs) are most important for people to move away, economic factors are very important, social factors are important and political factors are few.
- Resettlement programs enable and disable push and pull factors, which are very important in pastoralists' migration decisions.

Preliminary findings (cont)





Preliminary findings (cont)

- Environmental identity

Many respondents think coping with hazards is an important part of a pastoralist's life.

“We have more animals in good years and lose some in bad years. It has always been like this”.

“We are very used to disasters but I can not really tell what techniques we have to copy with. During snow storm or drought years, we lost some animals, but that is normal. If we can prepare better ahead, it is alright”.

- Blurry definition of migration

The tradition of “going Aoter”

- Gender perspective: different responsibilities and opportunities in the pastoral and urban areas
- The role of social network is complex both in the home and destination area
- A constant reflection upon how the others are takes a role in the future migration decisions.

Some insights

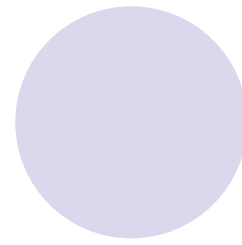
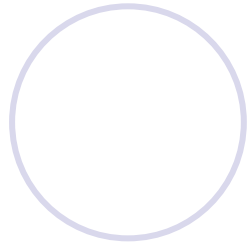
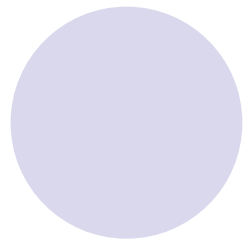


- Although environmental degradation rarely in and of itself causes migration, it indirectly contributes to most migration decisions for economic reasons.
- Migration is used as a coping strategy with environmental degradation much more by the government than by individuals.
- Resettlement programs set up a basic structure in the region and they affect pastoralists' matrix of push and pull factors upon the migration decisions through enable and disable things.
- Return migration are expected to become a typical pattern. Unfulfilled expectation of pull factors and better income by herding animals in recent good years are very important in changing the migration pattern.

Future Scenarios



- Resettlement programs promote the connection between rural and urban area and self-organized migration has a tendency to increase. Age-transition also plays a role in this change.
- Man-made environmental problems are expected to increase with the speed up of urbanization.
- Most migrants are still involved in resource use in the pastoral area.
- Several experts think that to project the future scenario of migration in Inner Mongolia, we should first of all consider the government strategic planning, which makes ecological resettlement program integrate other functions such as poverty-alleviation and urbanization.



The end

