

An Empirical Survey on the Risk Perceptions Among Mongolia's Laypeople

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ABSTRACT

Mongolia has been rapidly and dramatically changed after democratization in the beginning of 1990s in diverse aspects including their life-style. While a part of Mongolians have accepted a favor from economic growth during the 25 years, environmental and social problems, air pollution, economic gap, poverty and deterioration of public order, for example, are seriously sweeping this country and more and more Mongolian people tend to express incredulity at the government's plans and policy implementation.

For the above background, we decided to conduct empirical research in the purpose of providing ideas of risk perceptions among locals in Mongolia and employ our survey result in policy decision. According to our questionnaire survey, what locals most concerned were air and water pollution and corruption of government or bribery. It was also clarified that most of people were worrying about the present situation in Mongolia and they were subject to expect the Mongolian next generation and government for measures and directions for future. Although our tentative work has just begun, this results can lead to provide a tip-off for proper and effective policy decision for Mongolia.

Keywords: Mongolia, risk perception, laypeople, present and future

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1. BACKGROUND: WHY RISKS IN MONGOLIA?

The aim of our study is to enrich the understanding of the responses of Mongolia's laypeople to risks. There are several valid grounds for conducting basic and comprehensive research on risks in Mongolia and these need to be explored and studied.

First, Mongolia has become more developed and fast moving since the 1990s, after its democratization. Most Mongolian people and a number of research assert that Mongolia has changed a lot in the aspects of globalization, industrialization, marketing, religious return (conversion, transformations), liberalization of movement of people, and lifestyle. We also agree with these views and it is thus necessary to understand what issues people are confronting at the present and how they recognize these from within and from a whole national and dramatic transformation afterwards.

Second, the instability and its tendency towards changes are significant factors that make Mongolia susceptible to be more unstable, and worse, unprepared to face or handle problems such as global warming, economic and policy unrest, poverty, air pollution in cities, population density, mining activities, food contamination, unemployment and violence, and others unrest in the society. We define these issues as "risks" in this research, because most of these problems either directly or indirectly affect or threaten human security and environmental sustainability. These, we can claim, can seriously affect and influence the future of Mongolia. For example, according to the United Nations Convention to Combat Desertification (UNCCD) in 1994, a quarter of the land of Mongolia is already under desertification and a total of 850 lakes and 2000 rivers are completely dry. Its nomadic culture has been already endangered by the environmental changes and yet, at present, there are still no exact identified factors and fundamental resolutions. In other words, environmental sustainability itself has now become a risk. However, this is only one instance among the many. Thus, we suggest, first of all, to identify and establish the most pressing problem based on the results of thorough inquiries and research instead of resorting to expressions of discontent, grumbling or buck-passing.

Third, in Mongolia, the practical and proposal-based research is becoming increasingly in demand, which can contribute to solve or improve the current situation within the context of these complex status and risks accumulation. We first started our research on environmental protection and promotion of the interactive environmental education programs in Mongolia, mainly in the Ongii valley in Uvurkhangai Prefecture since 2007. These projects are supported by grants from the Japan International Cooperation Agency, Grants-in-Aid for Scientific Research of Japan Society for the Promotion of Science from the environmental programs of the Resona Foundation for Asia and Oceania, and of the Global Collaboration Center of Osaka University. We also collaborated with local people, local NGO and association laboratory of cultural anthropology in the National University of Mongolia and Japan research office in Mongolian Science Academy. Within our ten-year activities and through our interaction with the people of Mongolia, the most urgent and striking problem that we discovered is the shortness of water supply. Water, in the Mongolian society and culture is considered to be sacred. Religiously and traditionally, it is regarded, since the olden times, as most valuable. The Ongii River has become dry and become contaminated. The lake located in the end of the river has disappeared also. From this saddening situation, no one can identify the primary causes and the immediate solutions but instead laypeople can only speculate on the causes of this problem. They attribute this to famine, desertification and contamination of the region as a result of global warming, mining activities or moral degeneration. Others regard this as the "reality". With this situation, it is therefore imperative that a new and practical perspective and research method is needed to understand the risks which the local people are facing and at the same time, to analyze their perceptions towards this problem.

It is because of the above reasons that the researchers decided to conduct a questionnaire survey using psychometric method as a starting point of the analysis of risks that Mongolia is facing.

2. RESEARCH METHOD

To begin with, we sought to undertake this research using questionnaire survey based on psychometric paradigm to study the risk perceptions of the laypeople of Mongolia. The questionnaire design was formulated to estimate, based on our eight- year field research and interviews or daily conversations, the risks which have great importance or impact to Mongolians. . Twenty-five (25) risks were identified. These are unstable economy, unemployment, lack of money, corruption of government or bribery, foreign governments and companies, incomplete or disrupted urban infrastructure, lack of energy, terrorism and crime, internet failure, disaster related to information, decrease or increase of population, income difference, ethnic discrimination, nuclear power, traffic accident, global warming, *zud*³, air pollution, water pollution, soil pollution, natural resources depletion, lack of food, food contamination, disease, alcoholism, and smoking.

The questionnaire is basically consist of two main questions and also asks optionally the respondent's profiles such as name, phone number, age, occupation, academic background, family members, and residence.

The first question asks the respondents to choose 5 risk items which will cause a serious effect on their lives and environment, and rank the five risks based on the degree of fear that is elicited from the respondents. The second question asks the opinions of the respondents on the present and future situation of Mongolia. This question provides data on the understanding and different perspectives of the risk perception level. The respondents evaluated the Mongolian situation on a scale of one to five, including "don't know", and provide reasons for the first question.

As shown in the appendix, the questionnaire was simplified. The number of questions is also limited so as to decrease the respondents' burden, fatigue or inability to complete the survey. This was also done to achieve a high response rate much as possible because most of Mongolians are not used to answering surveys and thus they tend to give up without completing it. No time limit was also set for the respondents to complete the survey.

The questionnaire, which was originally written in Japanese, was translated to Mongolian language by a Mongolian translator who has excellent Japanese language skills. Fifty (50) questionnaires were distributed with the assistance from our Mongolian acquaintances to Mongolian people who live in Ulaanbaatar and Arvaikheer (the capital of Uvurkhangai prefecture) and its rural area in August 2015. Respondents completed and answered the questionnaires on unpaid and voluntary basis. Forty-eight (48) completed questionnaires were returned; 29 of the respondents were men while 15 were women. Four (4) respondents did not indicate their gender. The age of respondents range from 16 to 60 years old. Among the respondents, 28 live in Ulaanbaatar, 13 in Uvurkhangai and seven (7) did not provide their residence. All of the respondents are considered locals or laypersons and their occupations were varied: the respondents were either students, nomads, researchers, accountants, lawyers, engineers, while others were unemployed. Their educational background varied as well.

³ *Zud* is a kind of "natural disaster", characterized by damage brought by cold climate and drought. However, *zud* is not only a natural phenomenon but according to the Mongolian nomadic culture, it is part of the natural cycle and related with traditional religious beliefs.

3. RESULTS

Table 1 below shows the answers/results of the first questions:

Table 1 Frequency of risks considered to be important or having the most impact that were chosen (multiple answers allowed)

Risk items	Total respondents
air pollution	35
corruption of government or bribery	29
water pollution	26
unstable economy	20
Unemployment	19
Alcoholism	18
soil pollution	17
income difference	15
Disease	14
lack of money	13
Zud	11
traffic accident	10
incomplete or disrupted urban infrastructure	9
food pollution	9
global warming	8
Smoking	5
natural resources depletion	4
terrorism and crime	3
foreign governments and companies	1
decrease or increase of population	1 (population decrease)
ethnic discrimination	1
nuclear power	1
lack of food	1
lack of energy	0
internet failure, disaster related to information	0

As shown in Table 1, respondents mentioned “air pollution” (35), “corruption of government or bribery” (29), “water pollution” (26), “unstable economy” (20) and “unemployment” (19) in decreasing order (the number in parentheses indicates the frequency of the answers) as the risks which they considered as having the most impact or significance to their daily lives. It can be noted that among the risks,

more than two-thirds of the total number of respondents considered air pollution as having detrimental effect to their lives. On the other hand, “lack of energy” and “internet failure, and disaster related to information” were not checked at all. This result reveals that although Mongolian society increasingly needs energy and internet access because of the impact of industrialization and globalization, people are more apprehensive and fearful when it comes to environmental, political and economic problems rather than on energy or information crisis.

“Air pollution” and “corruption of government or bribery” (8), “unstable economy” (6) and “unemployment” (6) were ranked accordingly as to what the respondents consider as serious risks. The answers suggest the gravity or seriousness of environmental and governmental contamination. (Pollution as a risk, particularly in Ulaanbaatar will be discussed in the later part of the paper.)

Choices such “gap between rich and poor”, “inconsistency of work and salary”, “population density”, “salary decrease”, “lack of information”, “environmental contamination”, “natural disaster” and “drought” and they were chosen once. Taking into consideration the current status of Mongolia, the choices “gap between rich and poor” and “inconsistency of work and salary” as “can be interpreted as income difference”, “salary decrease” as “unstable economy” and “natural disaster” and “drought” as “zud”. “Population density”, can be considered as “urbanization” while “lack of information” can be interpreted as Mongolia’s, as “incomplete social system”.

Charts 1 and 2 show the results of the answers to the second question which is related to the perception of the respondents towards the present and future status of Mongolia.

Chart 1

What do you think of the current situation of Mongolia? (Respondents can select/choose the answer to this question)

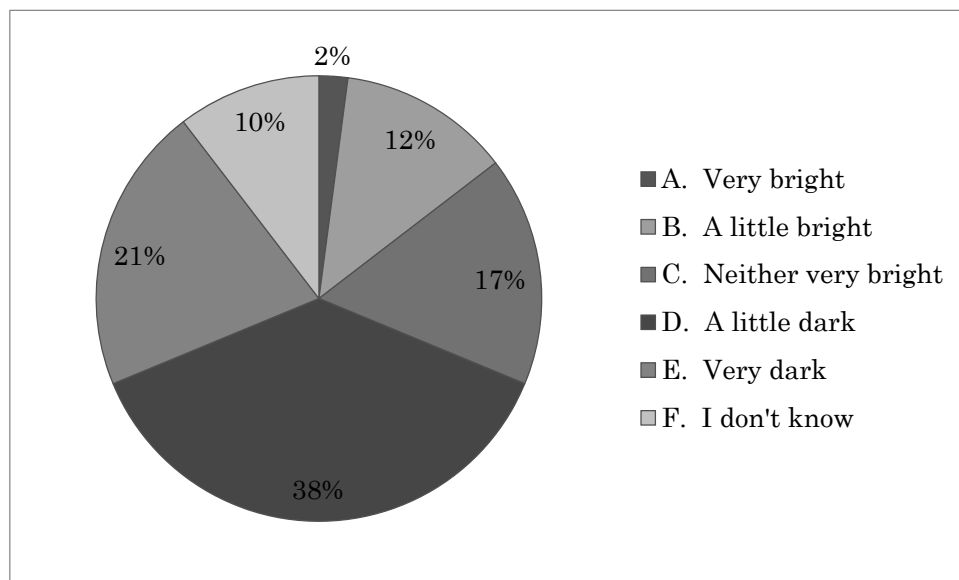
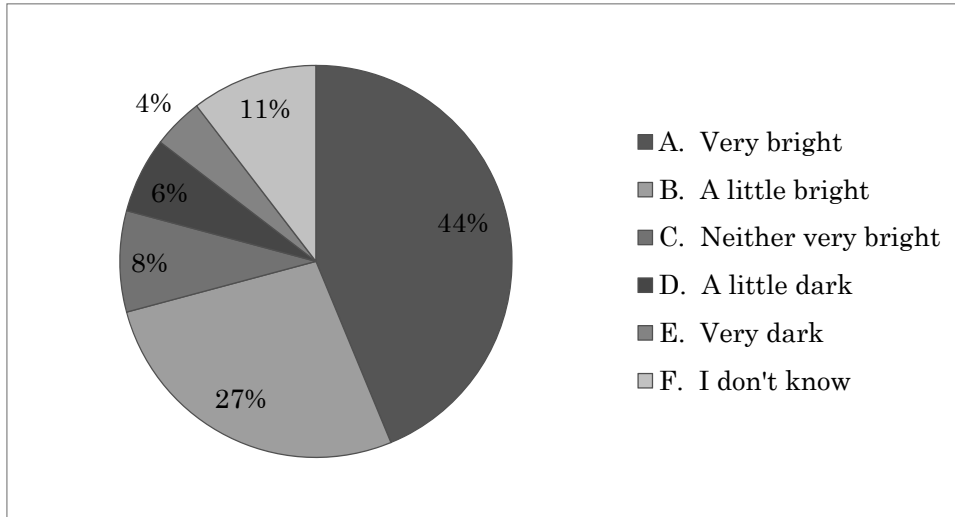


Chart 2

What do you think of the future situation of Mongolia? (Respondents can select/choose the answer to this question)



As shown by Charts 1 and 2, there is a significant difference between the current and future perspectives of the respondents regarding the situation of Mongolia. More than 60 % of the respondents presuppose that the Mongolian current situation is “a little dark” or “very dark, whereas around 70 % of respondents tend to think that Mongolia’s future situation is “a little bright” or “very bright”.

The reasons for the results were listed and categorized as shown on Tables 2 and 3.

Table 2. Evaluation and reasons for the perspective on the current situation in Mongolia (descriptive answer type question)

Answer	Reason
A: Very bright	Rich in natural resources
B: A little bright	Gradual development
	Proverb and belief “The mouth foresees the future”.
	Attempts to produce and create working chances
	Increased number of highly educated young people
	Boom of building rush
C: Neither very bright	Financial problem but common in the world
	No problem regarding climate and human spirit
	development on the way; development at a glance
	Need to radically change their (reference???)way of thinking
	Normal life in countryside.
	Increase of unemployed people and alcoholism
D: A little dark	Unstable political conditions
	Unemployment

	Government corruption
	Unstable economic conditions ex. Prices are up.
	Poverty such district expansion, low living standard
	Individualism
	Lack of proper economic and social welfare policies
	Alcoholism
	Insufficient development in pasturage production and processing stage
	Crime
	Environmental contamination
	Traffic accidents
	Spread of disease
	Small population
	Family problem ex. lack of affection and enough support from parents
E: Very dark	Government corruption
	Lack of proper policies
	Poverty
	Unstable economic conditions
	Alcoholism
	Dependency on mass media
	Unemployment
	Individualism and neglect
F: I don't know	Leading environmental problem, loss of my home land and residence due to
	Government corruption
	Lack of proper policies
	Unstable economic conditions
	Poverty

It can be seen from Table 2, for example that even though some respondents answered that the current situation in Mongolia is “very bright” or “a little bright”, it is based largely on economic, industrial and educational development, nature and beliefs or mental conditions peculiar to Mongolia. However, most of respondents tend to perceive that the political, economic and social phenomena happening are the most serious problems which Mongolia is facing. Furthermore, they indicated that these effects have strong associations their lives such as it could lead to unemployment and lower living standard. It is also important to note that only one respondent mentioned environmental damage because of mining caused the loss of home land.

Table 3. Evaluation and reasons for the future situation in Mongolia
(descriptive answer type question)

Answer	Reason
A: Very bright	Increase of highly educated young people
	large size of the country
	Abundance of natural resources and domestic animals
	Getting developed
	Mining development
	Characteristics of Mongolian people: intelligence
	Role expectation from the government
	Proverb and belief: "The mouth foresees the future".
	Hope to live in a society without class distinction or exploitation of its
	Various chances to develop
	Rising public awareness
B: A little bright	Rising public awareness: work and production.
	Increase of highly educated young people
	Potentialities for new industries to become self-sufficient: applicability of
	Safety of the country
	Large country
	Vast wilderness areas
	Development of infrastructure in Ulaanbaatar
	Election in 2016
	Dependency on stable party, government and economic conditions
C: Neither very bright	Unemployment
	Inequality of chances
	Beliefs: Time will change everything.
D: A little dark	Irresponsibility of young people and undesirable way of bringing them up
	Dependency on human characters (characteristics?)
E: Very dark	Unstable politics
	Dependency on stable party, government and economic conditions
F: I don't know	Hard to explain (difficulty of explanations)
	Social dislocations
	Dependency on stable party, government and economic conditions
	Increase rate of poverty and crime

On the other hand, it is interesting to note the difference between the perceptions of the respondents on the current and future state of Mongolia. As indicated in Chart 2, most of respondents believe that the hereafter would be rather positive while they perceive the present condition as "a little dark" and even "very dark". The majority of respondents anchored this optimistic perception on the

presupposition that the young with their superior academic background will develop. They also expect their policy makers to make the “right” or “proper” decision when it comes to the future of Mongolia. At the same time, it can be implied from the results, as indicated at the end part of Table 3, that some of the respondents had psychological confusion after democratization and this rapid social change made it difficult for them even to foresee or predict their future.

4. DISCUSSION

The people’s perceptions which were revealed in this exploratory survey provided a number of bases on how to understand and deal with the risks in Mongolia.

First, the result of the survey on psychological perceptions of the respondents reveal that a big number of the locals are apprehensive of the environmental, political and economic risks. Moreover, it was implied that air pollution and government corruption, are ranked high as public concerns, and therefore it is necessary to conduct a number of surveys in order to study these two risks in a more in depth approach.

Air pollution is one of the risks factors that respondents perceived to be a serious threat to their lives, health and environment. Ulaanbaatar, the capital of Mongolia, after all, is assessed and reported by the World Health Organization (WHO) as having “the worst level in the world” of air pollution in 2013. The problem of air pollution in Ulaanbaatar was discussed and researched seriously after the 2010’s. Measures were also taken on how to control air pollution at the same time.

The provisions for these risks are basically classified according to national and family/individual level. It can be noted, for example, that in the national level, countermeasures that are generally granted financial or technical support by foreign governments or international organization are concerned mostly with housing development in ger district and the building of houses without coal stove. The sale of “clean stove” which is seen to be feasible to reduce the emission of air pollutant, the prohibition of the use of unprocessed coal, the forfeiture of payment to companies are also priority projects. Projects which aim to fine people who are not able to attain the emission standard of the level of air pollutant and development of applications which can recognize the level of air pollution are also likely to get funding. Furthermore, the introduction of electronic cars, the promotion of kitchen greening of parks and tree-planting campaign (what is called, the “green revolution” in Mongolia) and national production of filtered-surgical masks are also considered as priority projects in the national level. On family or individual scale, people follow these concrete measures: wearing of mask or tying of scarfs around the neck, , avoiding going outdoors unless necessary especially among pregnant women and children and children, using cars to move instead of walking outside, stopping ventilation, bringing plants inside the home or in working places, using foreign eyewash medicines for sore throat, moving to live in the suburbs of Ulaanbaatar, staying in a foreign country during winter, and avoiding meat which is produced in Ulaanbaatar.

Although a number of measurements are being taken to counter the seriousness of air pollution, still no basic resolution was reached by the national government. This can be one of the reasons why people consider air pollution as a serious threat to their lives and why it arouses such fear from them.

Secondly, what can be predicted, based on the results of the survey regarding the public’s perception on risks, the question on whether Mongolia prevents, relieves and resolves not only the air pollution but also the other kinds of risks strongly depends on the decision of policy-makers. In other words, it can be said that the public expects that it is the government which can change the situation

of Mongolia. When it comes to the question on present and future of Mongolia, publicly- perceived risks are accompanied by suggestions for what can be done in the future such as the possibility of starting new industry deeply that are rooted in nomadic culture. As shown in the results, Mongolia has a vast land, wild nature, and wealth of in minerals. It can be said that these are the significant advantages in achieving industrial and economic growth, but consideration for the balance between development, environment and religion based on natural worship must also be explored and discussed. Otherwise, risks in Mongolia will continue to heighten and spread.

In addition to policy-makers, the young are also expected highly to lead the next generation. Therefore, based on the local people's perception, communication between the locals and decision makers should be emphasized; the young generation is expected to understand the risks in Mongolia and can manage and improve the current situation of the country.

Finally, international cooperation must also be considered. Mongolia must interact with the other parts of the world. Thus, if the country's policy and economy suddenly and rapidly become unstable, it is quite difficult to remedy this by relying only on national policies. Without global framework and perspective, it can be difficult to analyze or understand the risks in Mongolia.

Mongolia is generally regarded as "developing" country and has been greatly benefited from international support. It cannot be denied that the question on how to deal with risks and what kind of proposals offered by the developed and advanced countries can possibly influence the future of Mongolia.

This research, which was conducted in 2015, still aims to continuously improve its research design. It is hoped that this research provides a reference point in the understanding of risks in a local context, in promoting communication between the local and ordinary people and policy makers in the approach of understanding risks and the threats that they bring to the social, cultural and political situation of Mongolia.

APPENDIX: QUESTIONNAIRE ANSWER SHEET

Date : Year/ Month/ Day

Name :

Phone number :

Age :

Occupation :

Academic background :

Family members :

Address:

1.

First, please read the following 25 items and choose five items which you consider as a threat to your life or the environment. Then, rank these items according to the degree/level of how these arouse fear from you. If there are other fears which are not on the list, please indicate them on the "others" column.

Unstable economy/Unemployment/Lack of money/Corruption of government or bribery/Foreign governments and companies/Incomplete or disrupted urban infrastructure/Lack of energy/Terrorism and crime/Internet failure, disaster related to information/Decrease or increase of population/ Income difference/Ethnic discrimination/Nuclear power/Traffic accident/Global warming/Zud/Air pollution/Water pollution/Soil pollution/Natural resources depletion/Lack of food/Food contamination/Disease/Alcoholism/Smoking/

1.

2.

3.

4.

5.

<Others>

2.

I would like to ask you about the current and future situation in Mongolia.

2-1.

What do you think of the current situation in Mongolia? Please circle the nearest answer of your perceived opinion.

- A Very bright
- B A little bright
- C Neither very bright
- D A little dark
- E Very dark
- F I don't know

2-2.

Why do you think so? Please write down the reason/s.

2-3. What do you think of the future of Mongolia? Please circle the nearest answer of your perceived opinion.

- A Very bright
- B A little bright
- C Neither very bright
- D A little dark
- E Very dark
- F I don't know

2-4.

Why do you think so? Please write down the reason/s.