

SOCIAL IMPACTS OF INCORRECT DECISION FROM EARTHQUAKE FORECASTING

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ABSTRACT :

Earthquake is the top in all of nature disasters. It can bring a series of social or psychological or mentality and economic heavy impacts. Human being tries to seek a way for earthquake forecasting. On present situation of research, earthquake forecasting just likes a sword that has a double side blade. Successful earthquake forecasting can bring a positive effect. However, false earthquake forecasting or correct earthquake forecasting but a wrong decision can bring a negative effect. Successful earthquake forecasting is our target that we don't need to discuss. False earthquake forecasting attributes to the development of science, which also don't need to discuss on this paper. Here, we focus on discussion of negative effect by correct earthquake forecasting but a wrong decision. And how can we reduce negative effect by incorrect decision from earthquake forecasting. In this paper, we give an analysis of case about negative effect by correct earthquake forecasting but a wrong decision. That is earthquake panic event (meanwhile, pollution of Songhua River, flu of birds and beasts) in Harbin, Nov, 2005. One million citizens of Harbin escape. We find the key of the case. (1) Unprofessional director and professional researcher. (2) Director makes arbitrary decisions. (3) Frail psychological or mentality of the public need improve and spread earthquake knowledge and science. To solve those problems need to do: (1) GIS dealing with calm down the public; (2) Monitoring flow focus point of Internet information and frequently key word; (3) Construction of modernizations decision making system.

KEYWORDS:

Earthquake forecasting, Social impacts, Incorrect decision, Negative effect

1. INTRODUCTIONS

Earthquake disasters are the most severe natural disaster among all natural disasters. We still cannot make an accurate earthquake's forecast. Earthquakes can bring a series of social or psychological or mentality and economic heavy impacts. Human being tries to seeking for a way of earthquake forecasting.

But earthquake forecasting is a puzzle in this world. So, on present situation of research, earthquake forecasting just likes a sword that has a double side blade. Successful earthquake forecasting can bring a positive effect. False earthquake forecasting or correct earthquake forecasting but a wrong decision can bring a negative effect.

Successful earthquake forecasting is our target that we don't need to discuss. False earthquake forecasting is attributing to development of science. We also don't need to discuss on this paper. Here, we focus on the discussion of negative effect by correct earthquake forecasting but a wrong decision. And how can we reduce negative effect by incorrect decision from earthquake forecasting.

2. THE SOCIAL IMPACTS OF IGNORING IMPORTANCE OF EARTHQUAKE FORECASTING

The important of earthquake forecast is usually unconscious desalination. The reasons are as follows: (1)

Earthquake is a little probability event. For the danger of earthquake, nearly everybody is no experience in practice;(2)Some undestroyed earthquake give them a despised custom.(3)The secondary disaster is often be ignore before disaster happen.(4)The accuracy of earthquake forecast is suspected. There is a main trend viewpoint that earthquake cannot be prediction in this world. (5)No prediction, no responsibility; Incorrect prediction will be punish; Meanwhile, it has a large probability of incorrect prediction.

2.1. Chief of the Prediction Delegates Scrimshank for Earthquake Prediction

There is a phenomenon when some technical persons are given professors. Revolution is successful. So, weapon is in the warehouse. The war horse is bridle at the side of mountain. They will not study and work hard anymore. Often in this time, they are named in chief of the prediction delegates. They are snobs. They are never to deal with data of earthquake observatory. No calculation, no analysis, but many nonsense, misleading officers and public.

Many times, precursory abnormality can be grasped by observatory.

But, complex phenomenon disturbs our judgment. Specially, the consciousness of liability is desalted. In subjectivity, not pay attention in the question of earthquake prediction.

For example, the chief of the prediction delegates in Heilongjiang Provincial Seismological Bureau (short write: HPSB).

2.2. Administrator Scrimshank for Earthquake Prediction

The administrator doesn't seem to attach any importance to the question of earthquake forecasting. The director ignores the opinion of correct forecasting. In the end, they lost the best chance to announce the government. We give an analysis of case about negative effect by correct earthquake forecasting but a wrong decision.

On March 18, 2005, it happened a 3.8 magnitude earthquake at Fuyu county in Heilongjiang province. The earthquake located in Daxingan up well (Nenjiang Fault) geological construction zone.

The characteristics are an isolated earthquake. Not only there is no preceding earthquake, but also there is no aftershock. Look at the figure 1.

So, on March 22, 2005, it was defined signal earthquake in geophysics. According to the characteristics and other earthquake precursory phenomena evidence, the department of earthquake analysis and prediction in Heilongjiang Provincial Seismological Bureau (short write: HPSB) gave a predict opinion that there will be a 5.0 magnitude earthquake in south or north direction of Daxingan up well (Nenjiang Fault) geological construction zone, distance about 150KM from Fuyu county earthquake hypocenter, that is Gannan county or Lindian county, 3 to 4 month later.

The director doesn't seem to attach any importance to the opinion of this predict opinion.

May 18, 2005, there was a premonitory phenomenon that geomagnetism low point position be changed in observatory. According to this evidence, the department of earthquake analysis and prediction in HPSB insisted this predict opinion again. Meanwhile, they ask the director of HPSB to order that monitoring instrument and team should be mission two team at south point Daqing city and north point Qiqihar city. This time, the director of HPSB sent a team to north point Gannan county near the Qiqihar City. There are only one seismograph and one employee at Gannan county in Qiqihar city.

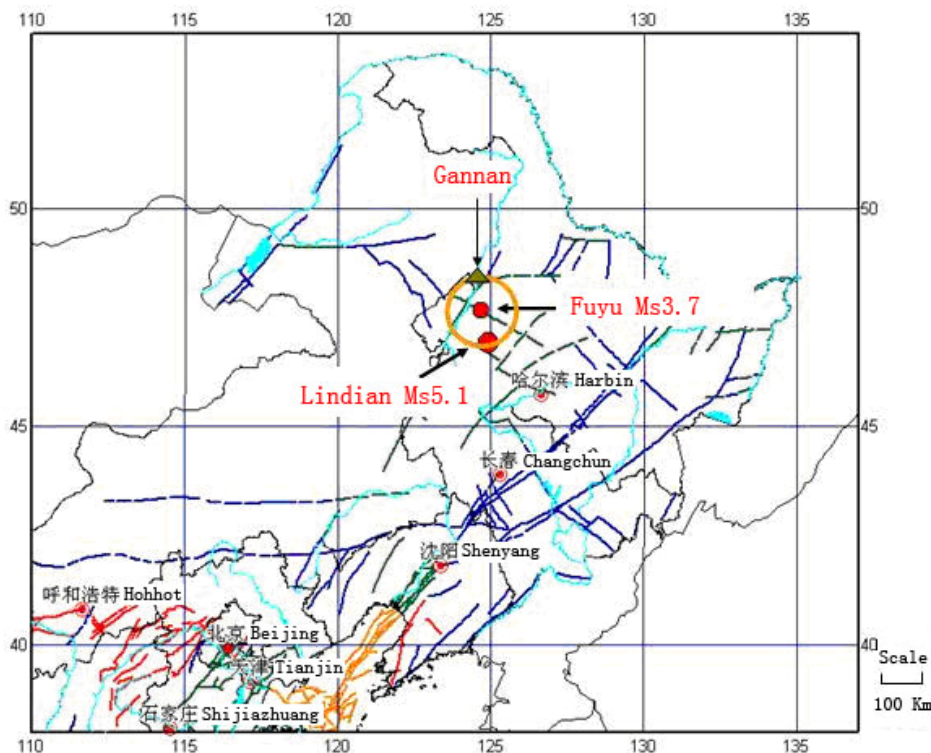


Figure 1 Lindian earthquake prediction sketch map

June 23, 2005, the department of earthquake analysis and prediction in HPSB insisted this prediction opinion again at Suihua meeting. It was denied by HPSB also.

July 2, 2005, the director of HPSB asked the department of earthquake analysis and prediction in HPSB: "Where is the earthquake? You are nonsense. You are waste money! Give me back the seismograph and one employee at Gannan county in Qiqihar city."

At the end, July 25, 2005, in fact it happened at Lindian county in Daqing city.

Magnitude is 5.5. It is very lucky. If hypocenter move 10KM to the south, Magnitude add 0.1, it will be a fire ocean because there is the Daqing petroleum chemical plant. After this event, it was checked in this Daqing petroleum chemical plant. Some key embolisms have been opened. But, the director of HPSB didn't carefully cop out on after this practice. Instead, he goes to the other side.

This case demonstrates that leader ignores importance of earthquake forecasting will bring to the heavy social impacts.

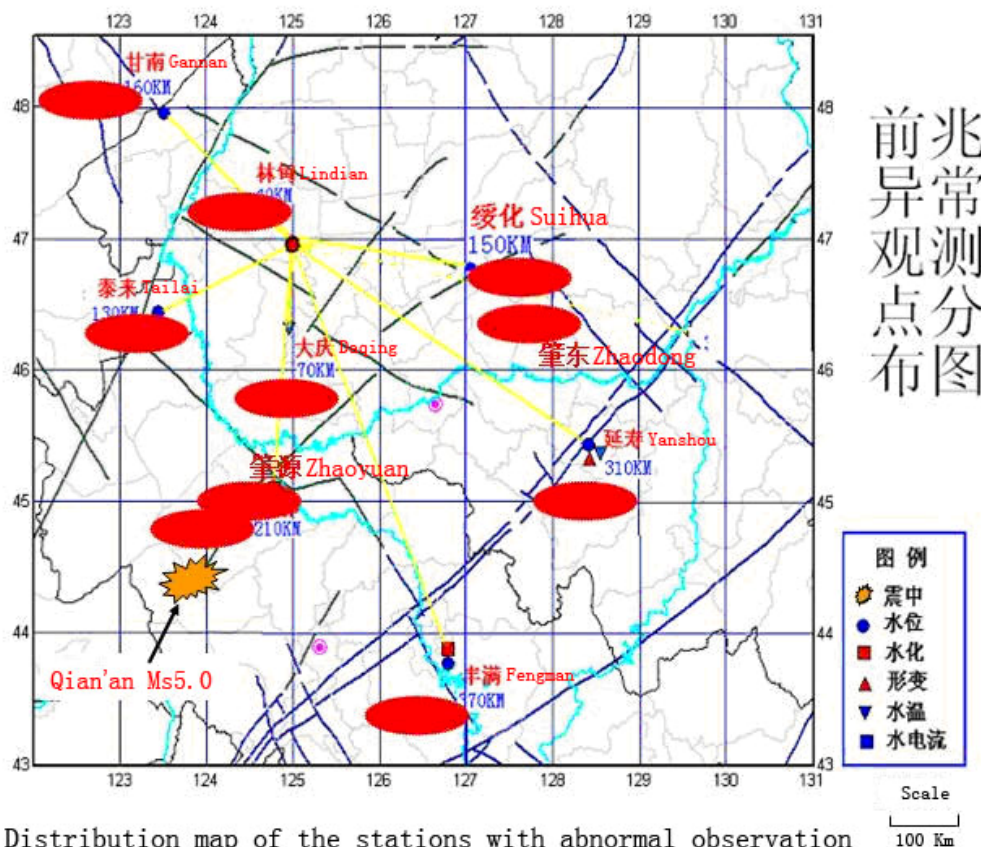
3. THE SOCIAL IMPACTS OF INCORRECT DECISION FROM LEADER'S UTILITARIANISM

The wrong decisions always give the stupid direction. Wrong information always shown by the incorrect ways, negative images is the main criteria infecting the public minds faster than bacteria.

3.1. Presume Spread Prediction Opinion to Plan on Rob Credit

After Lindian earthquake, the director of HPSB is repentant that he individually lost a chance to be commended and be promoted in government. So, he make a decision to grasp an earthquake prediction to make up this lost.

Nov 18, 2005, the department of earthquake analysis and prediction in HPSB find a lot of earthquakes precursory phenomena in Heilongjiang province and abutted south part in Jilin province. Meanwhile, geomagnetism low point position was changed in observatory again. After verified, a new prediction opinion is produced that there is a 5.0 earthquake about 10 days to 4 month at range of Zhaoyuan county in Heilongjiang province to abutted Songyuan county in Jilin province. This prediction opinion was identified by prediction committee of HPSB. Look at the figure 2.



Distribution map of the stations with abnormal observation
 Figure 2 Qian'an earthquake prediction sketch map

This night, the researcher of department of earthquake analysis and prediction in HPSB and others together with China Earthquake Bureau (short write: CEB) went to Beijing for seminar about this prediction opinion.

When they were discussing at this seminar in Beijing, earthquake panic event happened in Harbin.

Red headline formal document with red stamp of Harbin City Committee and Government announced citizen that recently there will be a 5 magnitude earthquake and pollution of Songhua river, flu of birds and beasts.

The director of HPSB is the classmate of Harbin City Committee Secretary (in philosophy department of Heilongjiang University).

The director of HPSB wants to be commended and be promoted in government. He had dialed the number of Harbin City Committee Secretary (The First Chief of Party and Administration) in this night. This action is deregulation.

First, this is a personal and individual behavior, not a government conduct.

Second, HPSB belongs to Heilongjiang Province Government, prediction opinion should be submission

Heilongjiang Province Committee and Government, not in Harbin City Committee and Government.

Third, prediction opinion did not include Harbin city. So, there is no necessary to announce the Harbin City Committee and Government.

One million citizens of Harbin escape. Army and troop deal with first class campaign state. Train garage in Harbin was been moved in other place. Traffic jam was formed. If no pollution of Songhua river, flu of birds and beasts take part in same time, nobody will respond this matter. Incorrect decision from leader's utilitarianism let widely citizen expend.

3.2. To Shift off Duty Prefer Lose Prediction Rather Than Wrong Prediction

The directors of Seismological Bureau of Sichuan Province (short write: SBSP) are extreme type.

Exmple1: Xicang wrong prediction in 1995

In Xicang region, a lot of precursory phenomena happened, including a swarm of small earthquakes, crust deformation, geo-electromagnetism, gravity, macroscopical abnormity-animals and plants. So, SBSP give a prediction opinion that a 7 magnitude strong earthquake will happen in Xicang region within 10 days. But, this prediction is wrong. Economic lose is about 0.8 billion Yuan. The experience and lesson is disastrous. The crust deformation can produce precursory phenomena. But, the crust does not fracture, no earthquake. When crust deformation is critical, energy possibly will be transfer.

Exmple2: Wenchuan lose prediction in 2008

The experience and lesson of Xicang wrong prediction bring on the leader of SBSP to the other side of event. He often tells the people making prediction that don't ask for trouble. So, a big trouble is happen at Wenchuan lose prediction in 2008.

These cases demonstrate that leader's utilitarianism can bring an artificial disaster.

4. THE SOCIAL IMPACTS BY PUBLIC AND MEDIA AND LEADER'S IGNORANT

4.1. The Harm from Media Delegated Government Misleading

One side, leader's emptiness is the key of earthquake panic event.

Here, we give an analysis of case about the earthquake panic event in Harbin, Nov, 2005. The director of HPSB wants to be escape responsibility. So, the conversation on TV adapts the police of both sides blocking up. Further, it resulted in and pricked up public panic and society confusion. Both there is a background happening middle strong earthquake, and there is no risk about earthquake. So, there is every kind of suspiciously rumor in public.

This case demonstrates that leader's emptiness together with public and media can make confusion of the order of society.

4.2. The Harm from Public Media Special Internet Misleading

Another side, propaganda of public and media cannot hold extent and degree. It generally exaggerates. In the

flag of responding all society, in fact they blaspheme this profession. Media include broadcast and newspaper and TV station and Internet misleading citizen. Meanwhile, psychological or mentality of the public are very frail. The public need be improving and popularizing the earthquake knowledge and science.

Typical case is the behavior of Chongqing TV station during the Wenchuan 8.0 earthquake. In pursuit of receiving high watching, Chongqing TV station makes false news about aftershocks prediction. Making front-page, pressman gave a new concept—key word: earthquake year. This is a typical misleading public case. We cannot help but admire the creation of pressman. What's word can be more lure than “earthquake year”?

5. CONCLUSION AND DISCUSSION

We find the key of the case. (1) Unprofessional director and professional researcher. (2) Director makes arbitrary decisions. (3) Frail psychological or mentality of the public need improve and spread earthquake knowledge and science.

To solve those problems need to do: (1) GIS dealing with calm down the public; (2) Monitoring flow focus point of in internet information and frequently key word; (3) construction of modernizations making decision system. Our general secretary Hu Jintao pointed out on the meeting of academic and engineering academician: we must farther grasp prediction and forecast of nature disaster and mitigate and defend nature disaster as an important work connecting economy development.

- (1) Improve research about nature disaster mechanism;
- (2) Improve monitoring and prejudge system;
- (3) Improve research about between each disaster and economic development, risk evaluation;
- (4) Improve multi-integration about RS, GIS, GPS, network communication engineering and Hi-tech of mitigate and defend nature disaster. Build up an information share platform reducing and mitigating disaster;
- (5) Conformity every kind of science and technology resource, popularized knowledge to mitigate and defend nature disaster.

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