

Natural Disaster Reduction, Aid Ability Construction Research—Based on analysis of Hubei province

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Abstract

Hubei province is natural disasters occurrence areas, the ability to withstand natural disasters is very weak in rural areas, basic undefended. This paper sets up the disaster prevention and mitigation and disaster emergency assistance in Hubei province as the starting point, summarizes rural disaster emergency aid practice of Hubei province in recent years, explore the optimization way of rural natural disaster relief ability construction in central China of local government. Puts forward policy advices of rural disaster prevention and mitigation disaster emergency assistance .

Keywords: Natural Disaster, Aid Ability, Sustainable Livelihood

1. Introduction

Hubei province is located in the middle area of Yangtze river, Yangtze river and Hanjiang river go through the whole province, and there are many rivers and lakes, known as "the province of thousands lakes", "the flood corridor". In the background of global climate change, the chance of extreme weather events increases, flood, drought, high temperature, low temperature freezing rain and snow heat increase which are result in precipitation uneven distribution, the temperature changes. Heavy rainfall lead to severe geological disasters such as landslides triggered, landslide and debris flow. Along with the change of motion of the earth's crust, the risk of earthquake disaster is rising, global climate change, abnormal sexual weather increase. At the same time, because of the acceleration of

urbanization process, human activities on the environment of the intervention is not reasonable increase, although natural disaster reduction of relief is increasing, the frequency of natural disasters shows a trend of increase for the past ten years, so as the disaster loss.

The flood disasters of Yangtze river in 1998. Because of El Niño and La Niña weather, the climate is unusual, the Yangtze river happened a whole basin flood since 1954, the upper Yangtze river successively appeared 8 times flood peak. The high level and high frequency of flood peak, the long time of high water level are all unprecedented. It affected 73 counties, 1357 towns, 14 cities. 2.32 million people are trapped, 2.42 million people are emergency transferred, 528 people are killed, 504100 houses are collapsed; 14616 enterprises are stopped production and production; one railroad is broken for 2 hours; 1217 highway are interrupted.

2011 is the year of all kinds of disasters. Hubei province has suffered from freeze at a low temperature, drought, floods, Feng Bao, landslides, earthquake etc. All kinds of disasters affected 29.2605 million people, 63 people are died because of the plague, 17 people are missing, emergency shelters for displaced 476400 people; 2.57334 million hectares crops are affected of which 224680 hectares crops; 41400 rooms are poured, 164000 houses are damaged; 1.8 million people once appear difficulties water; by Direct economic loss of 22.858 billion yuan.

Disaster name	Affect people	Population of died & missing	Population of emergency transferred	Area of affected crops	Agricultural crops area	Houses collapsed	Damaged houses	Economic loss
Total	2926.06	63	47.69	2573.34	224.69	11488	164036	228.59
Drought	1701.19	0	0.36	1300.46	44.41	0	0	87.75
Flood	1038.87	48	43.98	948.28	124.96	34868	94279	115.02
Wind&hai	267.46	12	1.38	236.8	36.55	3698	57852	12.95
Earthquak	8.35	0	0.92	0	0	251	10397	1.72
snowstorm	372.2	0	0.96	194.09	17.68	2336	6375	9.63
Landslides	0.33	0	0.07	0.42	0.25	195	174	1.12
Others	16.5	3	0.02	16.77	1.78	140	2279	0.39

Table1: Different kinds of disaster statistics in 2011 of whole province

The above analysis shows that the occurrence of natural disasters frequency increases, the influence of the population will

focus on rural areas, the farmer's house, crop loss is bigger. The task of natural disaster reduction in rural areas is difficult.

2. The analysis of reasons and capacity building of disaster mitigation and relief in the rural areas in Hubei province

It is a comprehensive skill of the government to do with the disaster mitigation and relief in the rural areas. With the hope of more happy life , people demand the government to develop the ability of management and service level, in the rural areas, there are some weak parts of doing with the disaster mitigation and relief in the rural areas, so there are some space for the government's ability to develop.

2.1.Value relief more than reduce nature disaster

Governments at different levels all think that it's more important to relief disaster than to decrease the disaster; and the press often concentrate on the urgency of assisting with few press about the work of avoiding the disaster in the common life, so the government often invest much money on the giving disaster relief than reducing natural disasters. During the plan of eleventh five, Jiayu county in Hubei province has recived 23.64 million RMB without money specializing on avoiding and reducing natural disaster.

2.2. Pay attention to plan despise drill

As so far, the government have complete the system of preventing plans for counties 、country towns and villages. However, there are some problems in the publicizing and rehearsing. Excepting lacking efforts on the publicizing and rehearsing,the installtions of hardware are not enough and the installtions at the emergency place are not enough and the marks are not clear,necessary emergency supplies are not enough.

2.3. Emphsising the construction of the proffesional disaster urgent team, ignoring the mobilization of the private aid groups

It has'nt thoroughly called up for the urgent natural disaster troops .what they can do is to deal with some normal natural disasters for the department of functions like local police, firemen, millitary police, etc. However, it is far more enough to meet the demand of dealing with heavy natural disasters, especially for heavy serious disasters. because of lacking the necessary rescue knowledge ,many people like reserve service unit ,basic level militia,community voluteers, Women Federation,T he Youth League, they cannot function well,on the other hands, the people can't meet the urgency because of the lack of traing.

2.4. Depending on the experience too much, Ignoring the effect of technology.

The monitoring and warning of the possible disasters largely depends on the experience of the disaster prevention personnel. It may not reach the expected result, if ignoring the effect of technology, on the contrary, just depending on the experience.

2.5. The standard of disaster relief cannot meet the demands of the actual needs of the victims.

The problem displays the these aspects: the non-coordinate of the disaster relief standard and the rising price; the large difference of the disaster relief standard in different regions, or in the same areas but not the same years; the relief fund cannot cover all the victims from all of their demands; some relief standard just don't adjust to the developing society; besides, some unfair phenomena in the rescuing occurs; the relief funds cannot issue timely, etc.

3 Enhancing the ability of prevention, reduction and deliverance of natural disaster in rural area with regional characteristics

The prevention, reduction and deliverance of natural disaster in rural area is a complex system engineering, and it put forward an important challenge to the local government's management ability. Local government is not only the guide and driver of local economic construction, political change and social management, but also the planners, leaders, managers and actors of natural disaster's prevention, reduction and salvation. The government ability is the summation of energy and power to effectively manage the society, owned by some government organizations with public powers, in order to maintain the stability and further development of the organization and complete the tasks and goals of the organization. The construction of Natural disaster emergency rescue ability contains the material input, system construction, organization activity and continuous personnel training, all these can improve the abilities to resist the natural disaster of the government, organizations, individuals and society. as for the government, the construction of natural disaster emergency rescue ability is to improve disaster authentication, information communication, emergency response, the mobilization and organization ability, strategic foresight, system construction, disaster

reconstruction, recovery capability, funds and material reserve capacity.

3.1 Improving local government's disaster authentication and communication ability

3.1.1 Unity caliber of disaster report, construction of share platform of disaster information

For the semi natural half man-made fire, give relief fund grant. it is found that, from the Enshi state research, due to custom culture, eating habits and harsh weather, together with the civil construction of the house, the majority of ethnic minority area especially the mountainous area, the residents in the home fire, bacon is extremely easy to cause fire. Fire has become poverty important factors of rural households, especially the civil housing structure, brick-wood structure, structure difficult family housing collapse, destroying, tolls, and tolls returning.

Establish accurate, rapid disaster information transmission platform. Change informational segmentation and congestion. use modern means of communication and computer management system, establish natural disaster relief short message service platform, the information mobile phone number to be included in the county of natural disaster relief disaster information short message service platform, requirement member 24 hours mobile phone contact flow.

3.1.2 Training of Professional disaster information team members

Accelerate the disaster information occupation skill training process, to ensure the province, city, state, county, township and village's professionals construction at all levels. Ensure that the provincial advanced disaster information division (country occupation qualification level), disaster information division (country occupation qualification level two), municipal advanced disaster information (country occupation qualification level three); state, county intermediate disaster information (country occupation qualification level Four); Township, village has a primary hazard information technician (country occupation qualification level five) of the five levels of knowledge, skills in architecture. Through scientific online examination platform (see Figure 9), overall planning, co-ordination, integrating and optimizing personnel structure, then realize the coordinate

development of disaster rescue and relief personnel and experts team.

Sequence number	area	Appraisal station and the construction of the unit	Total correspondents	The number of Appraiser and holder				evaluation staff	teachers
				2009	2010	2011	total		
17	Hubei	Civil administration occupation skill appraisal station twenty-eighth (Wuhan Vocational College of Civil Administration)	31092	17	83	1412	1512	6	1

Table 2: the basic information of Hubei provincial civil affairs system's disaster information occupation skill training and identification work

(Source: the People's Republic of China Ministry of civil affairs <http://www.mca.gov.cn/>)

3.1.3 Constructed information network from central to local disaster

Establish government shared information database at all levels up and down through. Change the lag of information management system to improve the current situation, meteorological disasters, geological disasters forecast level. Establish real time disaster across agencies reported linkage system, break the barriers of information. Integrate various types of emergency processing system in order to realize the sharing of information.

Develop computer simulation training system for natural disasters. The development of multi-level distributed modular training information platform, reconstruct disaster scene, with different disaster scale, environment, disaster evolution simulation conditions, sequential development and participation in membership, joint training as to strengthen the commander 's ability of judgment, and through the systematic operation and experience learning mechanism, complete experience collection, classification, value added, diffusion, in order to achieve the accumulation of experience, inheritance and training.

3.2. Enhancing the government's mobilization and derive resource capacity of disaster alleviation

The theory of social capital is considered by the western countries' making circles as new ideas to solve social contradictions, even

referred to as" the third road". Social capital refers to the social personal connections of relationship between social network and the resulting mutual benefit and mutual trust norms. The classical theory of social capital gives us important enlightenment.

3.2.1 Militia, Women's federations and Youth League play roles in traditional rural organization

The militia, Communist Youth League, women's Federation of traditional rural cooperative organization is the valuable capital in rural disaster relief organization, relative to the local common people, they have higher consciousness, effectiveness, they can be the first team to the disaster scene; at the same time, they can avoid the strangeness of the field organizations and volunteers, with strong regional comparative advantage.

3.2.2. Innovating social organization relief system, to mobilize social forces to participate in disaster prevention and reduction

Sound relief donation system and emergency rescue system of requisition compensation, standard receive , management and use of donated funds, carry forward the Chinese glorious tradition" party hard, help comes from all quarters" , and give full play to the role of social organizations, develop the disaster relief volunteer service, enhance the linkage among enterprises, social organizations, volunteers and disaster reduction work .To the units and individuals with outstanding contributions in the flood relief work, county Party committee

and government shall award a certificate, and their deeds shall be recorded in the annals of history, in order to realize the implementation of standardized, scientific management of social organizations.

3.2.3 Construct "disaster Prevention community"; improve community's disaster relief capability

Combined with the community construction, put the "disaster prevention community" construction into the construction plan, arrange reasonably for the layout of the building, and build synchronous program, synchronous process, synchronous development with community construction; give full play to community party (Group) , establish community disaster emergency mechanism, make the party member the backbone in serving the construction of the "disaster prevention community" and mitigation the resilience; organize regularly the masses of the people in community Village (house) to join disaster reduction activity and exercise plans, support community mass organizations, non-governmental organizations etc, to conduct disaster prevention knowledge publicity, give full play of their impact on their disaster prevention, emergency rescue, medical assistance, health protection, restoration and reconstruction, post-disaster psychological support .

3.3. Local government's ability of decreasing and extinguishing the disaster

3.3.1 The systematism of education of disaster preparedness and response

Propagate the knowledge of disaster preparedness and response in a wide way, enhance idea education of disaster preparedness and response, enhance the conscious education of disaster preparedness and response, enhance the longterm education of disaster preparedness and response. Let people know disaster, keep a watchful eye on disaster, discuss disaster and increase the awareness of disaster in order to build the reliable social basis of disaster preparedness and response.

3.3.2. Bring the work of disaster preparedness and response into the towns building management system

Disaster preparedness and response is a main part of town management, it should be bought into the management system. In the cycle of town's program and the planning, prospecting,

devising and construction of town's building program, pay attention to disaster preparedness and response skill and management service. After the disaster, people should assess it and if it exists anthropic factors such as site selection and planning, those responsible should be called to account.

3.3.3 Innovate the mechanism of law of disaster preparedness and response

Enhancing legal consciousness, salvage work of disaster should be perfected according to the law which including the preparation, emergency response, salvation and setting, rebuilding, relief materials management and social donation.. The whole disaster preparedness and response should be done in a legal way.

3.4. Local government's ability on reconstructing and recovering rural area from natural disaster

"Farmers living" is a plan that the United Nations food and agriculture organization launched aims to narrow the digital divide, its core is to reduce poverty through narrow the digital divide , its tenet is the human-oriented, multilevel and sustainable, dynamic way to reduce poverty. At present, Hubei province grassroots's post-disaster reconstruction funds basically use the "a three point foremost and one point as complementary" way. the provincial room relief subsidy funds help to solve a little bit, and mutual help a little bit, labor neighborhood the rest; now the disaster relief standard 5000-10000 yuan can only scratch the surface, the most important is to improve the farmers' self-raised funds ability . Therefore, this paper puts forward a farmer sustainable livelihood framework, to break severe poverty.

3.4.1 The government level: innovating means and smoothly getting through the specific work of reconstructing the destroyed houses after the disaster

The research place which was located in Jiayu County, Hubei Province, was implementing a mechanism of 3 level responsibility system for guarantee and multi-sectoral linkage. During the process of helping the people who had suffered this disaster rebuilding their home, the government stuck to the unified leadership, the unified deployment and the unified implementation. They carried out the responsibility system for guarantee leveled on county, town and village and reached down to every destroyed house owner, besides,

ensuring the completion before deadline and the quality up to grade, created a social atmosphere as “one in trouble, all will help”.

3.4.2 Rural disaster prevention and take off deficient to become rich with Research of Hubei province Ezhou

City District to take" five do not loosen" method to solve the problem. One is the coordination between departments, implement the responsibility not to relax; two is a multi-party financing, helping measures do not lock; three is the flexible distribution, capital reaches the designated position does not relax; four is the quality and quantity, supervision does not relax; five is to grasp the progress, helping the focus does not relax

3.4.3 Implementation of disaster prevention and mitigation from the perspective of sustainable livelihoods-focused anti-poverty mechanism. Xianning City of Hu Bei Province is stricting "three checkpoints", Ensure that the reconstruction engineer safety engineering, but to prevent the farmers once again into the top priority of the "poverty trap". First, strict planning concept; Second, strict siting outlook; At last, strict quality control concept.

Farm level: Sustainable livelihoods analysis under the framework of rural anti-poverty mechanism

Adopt a framework of sustainable development, targeting at the poor and vulnerable groups, put livelihood development to the foremost position, Ensure that the compensatory measures can promote the accumulation of wealth and poverty, and promote its alternative livelihoods, Pay attention to strengthening the prevention and reduction of disaster in ecological fragile area, Undertake farmer agriculture knowledge, knowledge of forestry and comparative advantage industrial training, develop tourism of Shennongjia forest region for its ethnic autonomous prefectures, so as to guarantee the farmers' sustainable livelihoods.

4. Conclusion

This paper shows that the occurrence of natural disasters frequency increases, the influence of the population will focus on rural areas, the farmer's house, crop loss is bigger. The task of natural disaster reduction in rural areas is difficult. So, we advice that :Improve local government's disaster authentication and communication ability; Enhance the

government's mobilization and derive resource capacity of disaster alleviation; Local government's ability of decreasing and extinguishing the disaster. Local government's ability on reconstructing and recovering rural area from natural disaster.

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