

## **Investigating the Variables of Willingness to Get Loan for Earthquake Retrofitting in Rural Areas ( Case Study: Abadeh Tashk District of Neyriz County)**

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### **Extended Abstract**

#### **1. INTRODUCTION**

Earthquake is one of the present fundamental nature's adversities that always causes major disasters in very short time. The human mind is always engaged with the stability and safety against the natural phenomena. Crises caused by natural disasters will have significant effects on the society; therefore, correct methods of managing natural disasters can be very effective in the prevention of environmental disasters.

So actually the availability of appropriate action plans on one hand causes the strengthening the base of the community in all fields and on the other hand drastically reduces the amount of property damage human casualties and social, economic and environmental disorganization. Several factors are involved in every area of the earthquake, background seismicity from geological position, a lot of faults on the border and within the villages and cities along the human factors like increasing of the rural low viability houses have increased the seismic vulnerability. It is necessary to inform the society that retrofitting is efficient in preventing danger.

Lack of safety in rural housing against earthquake could cause heavy costs on the government and people during and after crisis. These fees could be managed by reliance on crisis management.

#### **2. THEORETICAL FRAMEWORK**

Policies and solutions before crisis can be mentioned in order to manage the reduction of disasters costs, including: A). Non-structural methods: people awareness of economic partnership to secure housing, creating public

awareness. B). structural methods: enforcement of building regulations, measures taken according to engineering in planning, designing and building.

This information should also be given to villagers that housing reconstruction and damages by the earthquake costs much more than retrofitting.

The research objectives are:

Trying to identify the variables that influence the willingness of villagers to get loans in the process of structural modification and rehabilitation of housing; investigate the amount of willingness to get loans and rank them; investigate the spatial distribution of willingness to get loans in the area; help administrators in rural managing and planning with identifying these variables to increase the participation of villagers in the process of upgrading and retrofitting of their houses.

#### **3. METHODOLOGY**

This zone is limited to Neyriz city, Abadeh, Marvdasht, Shiraz, Estahban and also the central area which according to the latest divisions of the country, consists of three rural distinct:

Abadeh-tashk, Bakhtegan and Hana. The zone of Abadeh-tashk with Abadeh-tashk as the capital city has 3500 kilometers square extent and the population of 26641 people.

The statistical society in this research contains three rural districts of Abadeh-tashk, Bakhtegan and Hana and 10 villages of this statistical society are chosen as the sample society and 300 questionnaires are filled out in these villages. Research methodology is descriptive –analytical and SPSS software has been used to describe the data. Chi-square test, ANOVA

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and T-test are used to determine the amount of willingness to get loans.

#### 4. DISCUSSION

According to the obtained results, there was a significant relationship between 5 variables of 6 investigated variables (type of Residence, age, education level, awareness of risk, income) with the dependent variable of research (willingness to get loans) ( $p < 0.05$ ). It means that the families with high income level, high education level and high awareness of risk have a positive relationship with willingness to get loans. And there was no significant relationship between the ownership statue and the dependent variable of research ( $P > 0.05$ ).

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#### 5- CONCLUSION

According to the lack of strength and instability of buildings in these villages and also being on the seismic fault lines, safe housing is required. Therefore, the most important step is retrofitting of houses against the earthquake. Since, villagers' level of participation and willingness in getting and paying loans to retrofitting their houses is not desirable, their contributions could be increased by providing the suitable background for all the villagers in order to present plans with appropriate solutions for development.

**Keywords:** participation, willingness to get loans, retrofitting, Abadeh tashk

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