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FLOOD RISK MANAGEMENT BASED ON RISK SCENARIOS FOR VJOSA RIVER, ALBANIA

INTRODUCTION

“Vjosa River” is one of the greatest rivers in Albania, highly exposed toward floods and heavy rains. This paper analyses Vjosa River in Albania, as a hotspot for disaster both natural and man-made combined. It examines the effects that floods have on the fields and population that is located near the river by evaluating the risk profile of the area and by exploring the factors that contribute to the situation. The risk scenario is based on the assessment of floods that affected Vjosa area in 2015 and 2017, considered as floods that occur once every 50 or 75 years.

CORE IDEA OF THE RESEARCH

The necessity for disaster risk reduction measures and studies is present in Albania, taking into consideration recent events of high frequency and the vulnerability of the communities toward such risks. The annual average population affected by flooding in Albania is about 50,000 and the annual average affected GDP is about \$200 million.

An important part of disaster risk management strategies and actions, is the identification of stakeholders that are affected from the disasters and their roles. In general, flood risk management consists of the cooperation of public institutions, both local and central government, non-governmental organizations, the community and the private sector. In this paper we assess Vjosa River as a hotspot for natural disasters and aim to recommend an emergency plan to minimize the negative effects of a reoccurrence of massive floods on this area. The study assesses the flood risk by creating possible scenarios based on previous events and secondary data from Institute of Statistic in Albania, as well as by reviewing previous literature studies. In the second part of the paper, an overview of emergency plan that should be implemented in case of overflow of the river is given. The necessary actions examined in this paper include: the pre-disaster preparations, the warning signs, the responsible institution's actions, the fund allocation pre and post disaster, and lastly the effective usage of available equipment in the area.

In order to have an effective response toward flood disasters, the city council supported by Emergency Headquarters and non-profit organization such as Red Cross, should start the preparation for the potential emergency status since November. Throughout emergencies, further actions are needed such as: setting up tents and temporary shelters; establishing the required transportation for distribution of aid; distribution of food and non-food items and enrolment of population on tends to make sure no one is left behind. In this study we present and assess measures for prevention, strategy of response and implementation of emergency plans by the local institutions for the Vjosa River region.

Flood risk reduction measures should include the objectives:

- Providing security to all residents in the area;
- Reducing the risk of disasters caused by human error, deliberate destruction and construction or equipment failure;
- Ensuring the area's ability to continue operating after a disaster;
- Provision of comprehensive social service and supplies to the affected population before and after the flood emergency;
- Development of awareness programs on social issues.

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Fatmira Shametaj¹ Student at Master of Sciences in Risk Management, Department of Finance, Faculty of Economy, UT. fatmira.shametaj@gmail.com

Mariola Kapidani² PhD candidate and Lecturer at Department of Finance, Faculty of Economy, University of Tirana, Albania. mariolakapidani@feut.edu.al

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