

## FIRE PREVENTION AND MANAGEMENT

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### ABSTRACT

Fire prevention and management is one of the key aspects of disaster management. Prevention of fire outbreaks is important, as it reduces the risk of loss of life and property. Underdeveloped countries such as the Balkans and Albania face disproportionate events and consequences when it comes to fire. Human activities such as pastoralism, burning of weeds in farms in preparation for planting, and informal settlements increase the risk of fire outbreaks in underdeveloped countries, compared to developed countries. Disaster preparedness requires substantial investment in terms of equipment and training of personnel on disaster management. Educating people about fire safety is one of the highly recommended strategies against fires. Innovation enables the creation of creative programs meant to facilitate fire protection and management. In addition, such countries lack the necessary equipment and know-how on fire protection and management. Collaborating with the developed countries can help the underdeveloped countries learn and acquire sustainable techniques in fire protection and management.

**Keywords:** Fire Prevention, Disaster management, fire outbreaks, underdeveloped countries.

## FIRE PREVENTION AND MANAGEMENT

Fire outbreaks emanating from a variety of sources pose a great risk to humans, animals, and even property. It is therefore crucial that fire departments, as appointed and given powers by the relevant authorities, develop sufficient and efficient strategies to not only control the fires and the resultant damages after an outbreak but to also prevent the fire outbreaks. Efficient fire protection and management tactics are determined by a variety of factors, including the financial capability to avert fires and control them when they occur (Smith, 2013). Underdeveloped countries face unique challenges when it comes to fire protection and management, compared to developed countries. Underdeveloped nations contain many informal settlement structures that are poorly connected to sources of power, and serve multiple purposes, for example, the three-in-one structures commonly found in China (Smith, 2013). The purpose of this paper is to perform a literature review on fire protection and management tactics in underdeveloped countries such as Albania and the Balkans.

Fire Protection and Management in Underdeveloped Countries

Reports on the spread of wildfires in Albania and Balkans are not uncommon. For example, in 2012, a forest fire razed down areas around Lake Boracko, which resulted from drought and long periods of extremely high temperatures (Milisic, 2012). Similarly, Albania has suffered its own share of fires, both domestic and wild, and the results have been just as disastrous. Between 2006 and 2007, a total of 352 fires were recorded in Albania, which led to devastating loss of human life, wildlife, and ecosystems (ClimateChangePost, 2016). Albania and Balkans lie within the Mediterranean, a geographical area that has been experiencing an increase in prolonged drought and extremely high temperatures and dry

weather during the summer. Coupled with other factual data such as human activities, countries that lie within the Mediterranean have boosted their strategies to handle fires.

Ghana, Zimbabwe, and Nigeria are examples of other underdeveloped countries, whose ecosystems and residential areas have been ravaged by fires. IRIN (2011) reported that underdeveloped countries are countries hardest hit by fires, and recover the slowest from such incidents due to lack of current innovations to prevent and manage the fires. In addition to poor prevention and management techniques, developing countries still practice outdated practices such as the clearing and burning of debris in farmlands for the purpose of cultivation. This increases the risk of an outbreak of wildfires in underdeveloped countries such as Ghana (Meddour-Sahar, 2015).

Economically stable countries such as Spain and Turkey have reinforced their fire protection and management strategies by investing heavily on firefighters. For example, Europe has invested heavily in firefighting machines. Hence, it has the largest aircraft and helicopter firefighting fleets. However, underdeveloped countries such as the Balkans and Albania are still struggling with fire protection and management. Disaster preparedness requires substantial investment in terms of equipment and training of personnel on disaster management. The complex process of preparedness and management in fire safety involves the correct use of information, insight, innovation, integration, and involvement (Milisic, 2015). Gathering sufficient information about the possible causes of fires and the potential solutions and preventative measures is crucial in developing and implementing fire protection and management strategies (IRIN, 2011). The available information should be critically analyzed in order for the strategists make well-informed decisions regarding the best preventative measures.

The information can then be used to empower the citizens with knowledge on how to prevent fires and the steps to take in the event of a fire breakout. For example, the informal settlements in underdeveloped countries are more likely to experience fire outbreaks due to poor power connections and use of old methods of cooking that increase the risk of fire outbreaks. Empowering such people with information on the prevention measures against fire outbreaks can not only reduce the risk but also help the people to recover from such disasters. Educating people about fire safety is one of the highly recommended strategies against fires (Milisic, 2015). However, educating people requires substantial investments, and strained budgets, misplaced priorities, and incompetence in regards to fire management knowledge are some of the challenges that limit underdeveloped countries from achieving the goals of protection from fires and management of events when they occur.

Bearing information about fires and fire prevention strategies is not enough to prevent fires, according to Milisic (2015). Insightful conversion of data into useful knowledge facilitates the development of actionable plans. Insightful analysis of information enables the strategies to apply the information gained in real life situations. Insight from such information can either be the blinding flash or in the form of statistical methods. Again, this requires substantial investment in fire prevention strategies, which most underdeveloped countries such as the Balkans and Albania lack. Gaining insight encourages the interaction between the communities and the agencies appointed to oversee fire protection and management. The interaction further informs fire protection and management strategies, in that the solutions can be tailored to for the unique needs of different communities. For example, a pastoralist community will require different fire prevention and management strategies from a community living in overpopulated informal settlements. Insight gives rise to innovation.

Innovation enables the creation of creative programs meant to facilitate fire protection and management. Passive engagement of the communities in fire protection and management is not sufficient in preventing the fires. Innovation helps the strategists to develop creatively designed and unique programs that encourage participation and engagement of the members of the community in fire prevention. Community engagement can be financially draining, especially for countries that have financial limitations. However, creativity function of innovativeness helps the strategists to develop programs that fit the unique needs of different communities. For example, communities living in informal settlements in urban areas should be empowered with programs that promote safer use of sources of fire.

Integration is another integral step in fire prevention and management that may help underdeveloped countries address the fire menace. Integration involves encouraging a good relation with other countries and related organizations, in addition to collaborating with other agencies that may help in fire prevention and management. For example, the Balkans and Albania are surrounded by developed countries that have firefighting machinery, and collaborating with these countries can help Albania and Balkans borrow a leaf about fire protection and management. Involvement is also a crucial component of fire protection and management that can help underdeveloped countries address their fire outbreak woes. While integration encourages collaboration with individuals who bear similar interests in fire prevention, involvement encourages reaching out to individuals from different fields. For example, Balkans and Albania can reach out to investors from other countries, who can help with reconstruction or management of the informal settlements, hence reducing the risk of fire outbreaks in such areas.

It is evident that underdeveloped countries such as Albania and Balkans are more likely to experience fire outbreaks due to lack of sufficient and effective prevention strategies. In addition, such countries are also likely to suffer more devastating effects of fire outbreaks compared to developed countries. Instituting the five steps of fire prevention and management in achieving fire safety can promote the reduction of fire incidents in Underdeveloped countries. Moreover, the steps can help the countries to develop customized prevention and management programs while maintaining the costs.

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