

**Professional scientific sessions for art, architecture and urban planning Thursday evenings
Held in: Conference hall of Herampey Consulting Engineers**

Date: 25.08.2016

Title: Incidents and urban disasters

Speakers and panel members: Mr. B. Nourollahi, Mr. A. Bakhtiari and Mr. H. Naraqhi

Mr. B. Nourollahi began his speech presenting the brief history of three cases of fire incidents in Iran during three consecutive years. He talked about the role that rescue experts, firefighters and common people could have during such cases.

The first case happened in 2014 in Tehran in a six story building, where producing companies operated. At the moment of the incident many workers were present in the building, the first firefighter team arrived after just 4 minutes after the first call. The rescue group immediately analyzed the ways they could help the people trapped in the building. Talking about the security regulations he said they were almost totally ignored, because of lack of fire extinguishing systems, also the architectural design of the building that had to host producing units, was completely insufficient and inappropriate to answer to security needs. Regarding the common people they were present mostly as spectators, often disturbing the rescue operations.

The second case happened in 2015 in an oil stocking warehouse of 900 sq./m, near a wood warehouse of 1300 sq./m where were deposited 1000 tons of oil derivatives. In this case too, security measures and fire extinguishing tools and systems were completely absent or insufficient. The firefighters arrived after 4 minutes after the first call composed by different teams around 100 firefighters, from different cities near Qazvin. Because both of the warehouses were involved, so the firefighters done everything to isolate the fire, because the area was closed to residential areas. In this case too, many people helped the extinguishing operations, but sometimes they disturbed also the professional groups operations and activities.

The third case happened in a commercial-residential tower in Mashad. The building occupies an area of 10300 sq. /m in 18 stories (80 m. of height).

An important negative aspect regarding the position of the building is that because of the narrow street in which the building was built the firefighting large trucks were unable to reach the building. To extinguish the fire 100 mobile units and 270 firefighters were involved. In this case all the safety rules in the buildings were observed and nobody was injured, but on the façade because of the fire intensity the aluminum sheets used to cover the façade were mostly damaged.

Talking about the experience of other countries Mr. Nourollahi talked about Japan, where during the incidents and disasters the people doesn't disturb the operations and only the trained people help the rescue teams. He expressed the hope that in Iran too, the people were trained for different cases like natural disasters.

The second speaker was Mr. A. Bakhtiari who talked about the earthquakes and similar natural disasters and what all of us should know before they happen; meanwhile in Iran most of the people are not informed in Japan about 70 to 90% of rescue operations are realized by common people. The cooperation of the civilians is one the important factors that can reduce the number of casualties.

Mr. Bakhtiari continued his speech talking about the fire cases, saying that if a fire case is controlled during the first minutes the damage will be limited. This assertion has been confirmed by different operations that the firefighters have simulated.

Talking about earthquakes and fire cases Mr. Bakhtiari said that in Iran the people are not appropriately informed about the simple precautions that should be taken to limit the damages, of course many damages are caused because of wrong architectural design, like the case of the city of Bam, that left many people killed, meanwhile similar incidents are usual in Japan, but with very limited casualties.

Mr. Bakhtiari described the different types of debris that can be structural or composed by house furniture. It is very important to consider the possible damages that different structures can cause in case of earthquake or fire, in order to avoid or limit the possible damages. He also talked about the hospital facilities that in Iran are very limited. In his opinion in case of useful instructions many people can know what can happen after an earthquake and how can they survive with the minimum possibilities, like having life bags, how to stay in open areas, what to eat or how to have drinking water in case of emergency.

The third speaker was Mr. H. Naraqhi. His speech content regarded the urban incidents and disasters and the role and participation of common people. Talking about Iran he said that the country is potentially threatened by natural disasters, like earthquakes, floods. He talked about the different nature of disasters, the damages that they have caused during the last years and how many people were involved because of the disasters happened in their countries.

Talking about the city of Tehran Mr. Naraqhi mentioned the different problems that the municipal administration has face. Just an example, in national scale is that in 50 years the urban population has increased by 70% and the number of cities by 99 to 1243.

Continuing his speech he classified the incidents and disasters like natural, wars, epidemics, social disasters like genocides. Mr. Naraqhi talked about the 41 incidents happened in Iran classifying them in different scales and nature, linking them to how it is possible to manage them in order to limit the damages and human losses. Mentioning some cases happened in Tehran, Ahvaz, Bushehr... he said that the authorities didn't act appropriately before and after the disasters, so the in some cases the people suffered twice by the incidents.

In order to limit the damages the responsible bodies and authorities most design a unified system capable to coordinate the different type of operations, considering the various aspects of all the components that potentially can be subject to damages. He focused on the role of the authorities and the common people that must be instructed and prepared for disasters that can occur anywhere and anytime.