



**GI:DRM**

Global Initiative on  
Disaster Risk Management

# Integrated Fire Safety and Risk Management in Industry Clusters

A Product of GIDRM I

## The challenge

In 2012, a fire broke out in Tazreen, a garment factory in Bangladesh's capital city, Dhaka. The fire caused at least 117 fatalities and 200 people were injured.

With about 12% gross domestic product contribution, the garment sector is among Bangladesh's most important industry branches. Besides China, Bangladesh is one of the largest ready-made garment manufacturers worldwide. The garment factories employ roughly 4 million people (among them also children) and indirectly support the livelihoods of nearly 60 million citizens. However, the factory buildings are oftentimes highly exposed to hazards such as fires or a collapse.

Fire prevention and safety in factories present a major challenge not only to the fire services in Bangladesh but also to the garment businesses. Heavy traffic and narrow roads make it very difficult for regular fire services to respond in a timely and adequate manner.

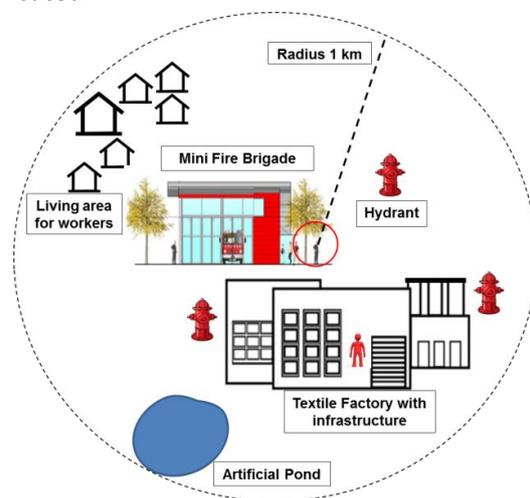
## Our objectives

In close cooperation with the Bangladeshi fire services, the civil defence directorate and garment businesses, GIDRM's aim was to systematically establish and expand fire prevention and safety measures and to set up a decentralised *Mini Fire Brigade* or, more specifically, a Rapid Response and Risk Reduction Unit (4RU) in industry clusters.

The Bangladeshi fire services were enabled to protect particularly exposed and vulnerable industry clusters more efficiently against fires and raise awareness for better fire prevention and safety in garment factories.

## Our Approach

In cooperation with public and private partners in Bangladesh as well as the fire brigade of Bonn, GIDRM I developed an integrated fire prevention and safety concept for the garment industry. At the core of this approach are a decentralised Rapid Response and Risk Reduction Units (4RU) with flexible teams of firefighters, professionally trained auxiliary firefighting teams in the factories and trained volunteers of the neighbouring communities. This unit can also advise the factory management on risk prevention and fire safety aspects and respond rapidly to industrial fires, building collapses and other severe incidents. In order to save lives, to keep fires within manageable limits and bridge the critical time until additional firefighting units arrive at the scene, the rapid response and risk reduction units should be stationed directly in the area where garment factories are located.



To enable 4RU teams to operate effectively, a specialised vehicle with different extinguishing systems, a hydraulic cutter and spreader is being developed. A first prototype was delivered in 2015.

With this vehicle the units will be able to arrive on-site in a timely manner and deliver effective first response. This includes opening locked doors and windows, securing emergency escape routes, fighting incipient fires and most importantly, saving lives. Thus, valuable time is saved until the regular fire brigade arrives. The planned deployment range of the 4RU is limited and focused on an area with a high density of factories.

For the Bangladeshi fire services to get acquainted with the concept of small, decentralized units and corresponding tasks in fire prevention and safety, trainings and delegation visits have been conducted in 2013 and 2014.

With this concept, GIDRM I offered a context-specific solution to Bangladeshi needs. The planned actions were coordinated with the management of the Bangladeshi fire brigade and integrated into its medium-term development strategy.

In order to identify potential areas of cooperation with Bangladeshi partners, meetings, study tours, and events at international fairs concerning fire safety and disaster preparedness have been held. In addition, experts from German fire departments conducted a local study in Bangladesh.

The Bangladeshi Delegation surveyed industrial parks and businesses that work in the sector of fire prevention and fire safety during a visit in Germany. The participants had the opportunity to learn about state-of-the-

art fire safety and firefighting. They also gained a better understanding by visiting multiple fire brigade units, a large shopping center and a German textile factory. Furthermore, the delegation participated in a training course in GIZ's training center in Feldafing.



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## Our Partners

The integrated fire prevention and safety approach was based on a public-private partnership. GIDRM I was working closely with the Bangladeshi government and fire brigade as well as local garment producers and industrial associations in order to achieve an economically viable concept. On the German side, the fire brigade of Bonn had been involved in the design of the concept and trainings.

GIDRM I closely cooperated with the GIZ team of the project for 'Promotion of Social and Environmental Standards in the Industry (PSES)', commissioned by the German Ministry for Economic Cooperation and Development (BMZ).

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