# CONCEPT NOTE

## 1. INTRODUCTION

Industries are complex system, it involves number of Chemicals, Equipment's, Processes etc. which could be hazardous in natures. Some of the Chemicals are highly toxic, highly flammable and highly reactive. Today, everyone is striving for Manufacturing excellence, safe environment and maximum profitable operations.

Considering this, Gujarat which is one of the leading industrialised state in India, is known for its large concentration of Chemical industries, particularly in a stretch of 400 kms from Ahmedabad to Vapi, known as 'Golden Corridor'. In Bharuch district, Ankleshwar situated on the Narmada estuary, is Asia's largest chemical zone.

The growth of Industries has led to an increase in the risk of occurrence of incidents associated with hazardous chemicals and industrial safety. Amidst the ongoing pandemic, the risk has been increased dramatically. The occupational health and safety at the workplace is become the major concern. There is a visible gap in understanding and addressing this issue. Gujarat Institute of Disaster Management (GIDM) as a state-of-the-art premier institute for training, education and research related to disaster management we can address this existing concern by organizing a series of webinar which allow in-depth understanding of the issues related to industries.

## 2. Need for CIDRM

As mentioned before, State of Gujarat has widespread of industries and it shares major part in economic growth and development of the state. But the contemporary development paradigm, marked by recklessness and indiscriminate use of Nature, gives rise to abnormal growth which ultimately invites the disasters. To avoid disasters one need have deepen understanding of existing and future risks, which can be mitigated through adequate measures.

In Gujarat state, Director Industrial Safety and Health (DISH) has identified **10,584 as "Hazardous factories" out of 43,271 registered factories across the state**. These hazardous factories are also categorised on the basis of chemical sub type Type A, Type B, Type C and 2cb (Section 2(cb) in The Factories Act, 1948, which involves hazardous

process) along with MAH. Units where chemical quantities handled are below the threshold quantity for MAH units as mentioned above are known to be Type 'A' industries. Those handling of hazardous solvents and highly inflammable liquids are known to be Type 'B' industries, and much less hazardous industries are known as 'Type C'. Such extensive Chemical & Industrial Profile exposed to more risk and increases the vulnerability of the state.

## 3. ACTION PLAN

Since, we are able to identify the need of the CIDRM across the state, a systematic and holistic approach to cater the desired need may reduce the existing gaps. A good mixture of Science, Engineering, Technology & Innovation (SETI) for Disaster Risk Reduction may play vital role in the CIDRM field of Gujarat. Industries mostly works in a secluded way, few of them may have updated technologies for identifying and mitigating the risks, but it need to be shared with others for effectiveness of those technologies.

In above context, as a kick-start GIDM is organising series of following webinars with Industries Association. Targeted participants would be Health & Safety Executive (HSE), Safety Officer and all the concerned officers related to safety of the industries.

Although, in GIDM we do follow holistic approach by conducting residential programs, but in constraints of COVID-19 we may conduct a series of webinars with optimizing available resources. The discussion of these webinars may documented and this could be asset towards our residential programs whenever it resumes with due permissions. The conceptualisation of webinars which shall commence from **30 September 2021** are as follows:

**Webinar 1: Role of Disaster Risk Management within the industries.**

Industries has their own set of understanding about the emergencies and they are well-trained and has adequate facilities to respond to on-site emergencies. Although, when it comes to assess and respond to natural hazards, it becomes challenging for the industrial sector. The terminologies used, early warnings received, emergency contact details shared; briefly the Disaster Risk Communication has its own importance; and need to be addressed targeting this specific sector. A Comprehensive session to Understand

Disaster & Disaster Risk Communication can be organised which may help to industry, context of Disaster Risk Management in better manner.

**Webinar 2: Unravelling the effects of Cyclone to the Industries**

Over the last few years, unusual activity in the Arabian Sea is being observed. The oceanic basin to the west of the Indian sub-continent which usually sees low-intensity cyclonic activity has suddenly turned into a hotspot of sorts, churning out severe cyclonic storms one after the other. Not only there is growing formation of cyclones in the Arabian Sea, these storms have also been increasingly severe in intensity. The cyclone pattern from the last few years suggest that the Arabian Sea also started receiving tropical cyclones of high intensity in a small time interval. For instance, in 15 years (1998 to 2013), five extremely severe cyclones originated in the Sea.

In above context, Gujarat who has 1,596 km long coastline, and no part of the state is more than 160 km from the sea, faces the cyclone regularly. Recent *cyclone Tauktae* underlined the vulnerability of the coastal area of Gujarat. The industries, has also faced the unparalleled consequences of the Cyclones. Considering this, a webinar has been proposed to address the above mentioned concern.

**Webinar 3: Fire Safety & Risk Assessment**

An industrial fire is a type of industrial disaster involving a conflagration which occurs in an industrial setting. Industrial fires often, but not always, occur together with explosions. They are most likely to occur in facilities where there is a lot of flammable material present. Such material can include petroleum, petroleum products such as petrochemicals, or natural gas. Processing flammable materials such as hydrocarbons in units at high temperature and/or high pressure makes the hazards more severe. Facilities with such combustible material include oil refineries, tank farms (oil depots), natural gas processing plants, and chemical plants, particularly petrochemical plants. Such facilities often have their own fire departments for firefighting. Sometimes dust or powder are vulnerable to combustion and their ignition can cause dust explosions. Severe industrial fires have involved multiple injuries, loss of life, costly financial loss, and/or damage to the surrounding community or environment.

Industrial Fire is an one of the Prominent Hazards which has maximum impact on industries. As mentioned above there are numerous reasons to catch a fire in industries. Therefore, it is necessary to address this issue in our training and capacity building programs.

**Webinar 4: Role of Business Continuity Management System for Sustainable Growth of the industries**

Amidst the ongoing Pandemic provides a perfect example of how proactive approach works – organisations that waits until the emerging risk is already impacting and losing ground to companies that were better prepared. Organisation must be better prepared to save their business by considering what interim events could occur that would suggest that a pandemic, or similar emerging risk, is about to sharply increase in terms of its impact or likelihood. This preparedness starts with the initiating an efforts to make an efficient **Business Continuity Plan.**

Considering the wide spread of industries and businesses across the state of Gujarat, which has been affected badly due to the COVID-19. A webinar focussing on Business Continuity Planning within the organisation shall help the industries to conceive the importance of it, work towards sustainable growth of the industry.

These said programs are aligned with Prime Minister's 10 Point Agendas for Disaster Risk Reduction. It addresses the agenda 1, 2, 5, 8 and 9. It also incorporates Sendai Framework for Disaster Risk Reduction's (SFDRR) priorities and it's targets. The programs may also help in taking a step towards achieving Sustainable Development Goal 4, which talks about innovations within industries and Goal 17, partnerships for the goals.