INTERNATIONAL CONFERENCE ON

Ensuring **Industrial Safety**

The role of government, regulations, standards and new technologies

UNITED NATIONS
INDUSTRIAL DEVELOPMENT ORGANIZATION

International Conference on Ensuring Industrial Safety

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ABBREVIATIONS

IAEA	International Atomic Energy Agency
ILO	International Labour Organization
ISO	International Organization for Standardization
LDCs	Least developed countries
OHS	Occupational health and safety
OSHA	Occupational Safety and Health Administration (United States)
SDGs	Sustainable Development Goals
SMEs	Small and medium-sized enterprises
UNDRR	United Nations Office for Disaster Risk Reduction
UNECE	United Nations Economic Commission for Europe
UNIDO	United Nations Industrial Development Organization
UNISDR	United Nations Office for Disaster Risk Reduction
UNODC	United Nations Office on Drugs and Crime
UNOOSA	United Nations Office for Outer Space Affairs
WHO	World Health Organization

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FOREWORD BY LI YONG, DIRECTOR GENERAL, UNIDO

Industrial safety is often an overlooked attribute of well-being that is important for achieving the 2030 Agenda for Sustainable Development and its associated Sustainable Development Goals (SDGs). Industrial processes, equipment and factories have the potential to create hazards that can harm individuals, the environment and industrial assets.

At the same time, natural hazards, political instability, sabotage and cybercrime can cause massive damage to entities of the industrial sector. These natural and human-caused hazards can affect the social, economic and environmental pillars of sustainable economic development. When governments and companies alike ignore industrial safety, along with the prospects of damage from climate change, that neglect will be reflected in lower productivity, competitiveness and resilience, posing a serious threat to realization of Agenda 2030 and the SDGs.

Because industrial activities will never be entirely free of risk from natural and human-caused hazards, it is essential to understand these risks as thoroughly as possible to inform supervisory authorities and to take suitable risk-mitigation measures. In addition to these precautionary steps to ensure the safety of workers and the environment, there is also a need to consider security. Machines can be deliberately exploited for nefarious purposes—for instance, during cyberattacks—and that possibility should be taken into account when implementing or redesigning production systems.

Developing countries, especially the least developed countries (LDCs), are more vulnerable to hazards at industrial sites than developed countries. We can attribute this to a number of factors, such as a lack of safety standards and compliance, poor land planning and, in general, a low degree of safety awareness, education and training.

In many developing countries and LDCs, industrial facilities are commonly built on inappropriate geographic sites, making them dangerously susceptible to natural hazards. Natural hazards can occur virtually anywhere, but some locations are more vulnerable than others since they are more prone to floods, earthquakes and other extreme events that call for special measures. And climate change will exacerbate the economic damage stemming from natural disasters. Therefore, mapping hazardous