20th Safety Convention
on theme
"Back to basics for strengthening EHS & Sustainable Foundation"
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SAFETY AND QUALITY FORUM
The Institution of Engineers (India)

The importance of EHS and quality management in India's journey towards sustainable development and environmentally responsible society

Dr Labh Singh Ex-Advisor DOT GOI
Chairman Punjab and Chandigarh State Centre IEI

A.Justification for EHS and Quality

1. Growing Awareness

India has seen a significant increase in awareness about *environmental sustainability and safety measures* across industries, leading to a greater focus on implementing EHS practices.

2. Legal Framework

India has well-established laws and regulations for EHS and quality management, such as the Environment Protection Act, Factories Act, and ISO standards, which ***play a crucial role*** in shaping safety practices.

3.Occupational Safety

With a large and diverse workforce, India faces <u>unique challenges</u> in ensuring occupational safety across sectors, making it a key topic for discussion at this convention.

4. Rapid Industrialization

India's rapid industrial growth demands a greater emphasis on sustainable practices and the *integration of safety measures* **right from the planning stage of projects.**

5. Technology Adoption

The adoption of cutting-edge technologies, such as IoT, AI, and data analytics and 5G mobile, is <u>playing a pivotal role in enhancing safety and quality</u> measures in various industries.

6.Circular Economy

The concept of a circular economy, promoting *resource efficiency and waste reduction,* **is gaining traction as a sustainable foundation for businesses in India.**
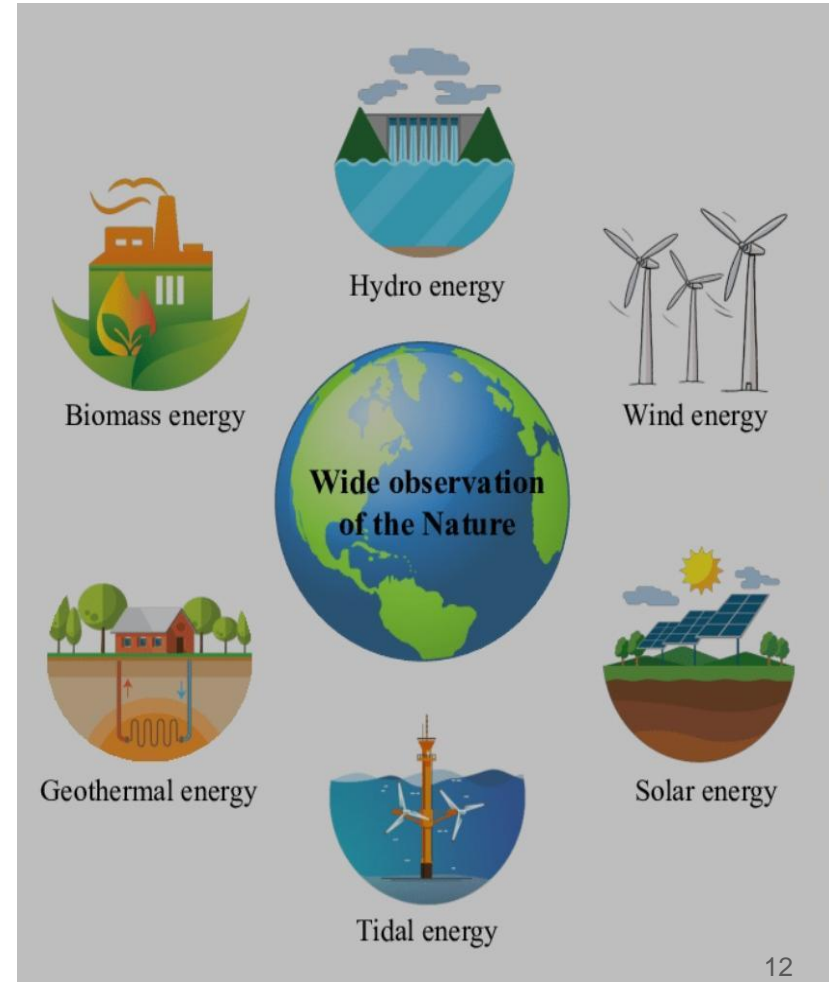
7. Green Building Initiatives

India is witnessing a rise in green building initiatives that focus on energy efficiency, waste reduction, and occupant's health and well-being.

8.Shift Towards Renewable Energy

India is making significant strides in transitioning towards renewable energy sources, contributing to environmental sustainability and reducing carbon emissions.

Hydro energy

Biomass energy

Wind energy

Wide observation of the Nature

Geothermal energy

Tidal energy

Solar energy

9. Safety Culture

Building a strong safety culture is becoming a top priority for organizations to create a safer work environment and prevent accidents.

10. Collaboration and Partnerships

The conventions like this, serve as a platforms for various stakeholders, including government bodies, industries, NGOs, and experts, to collaborate and share best EHS&Q practices for sustainable growth.

Let us leverage this opportunity to contribute and enhance sustainability.

Conclusion-I

These facts highlight the importance of EHS and quality management in India's journey towards sustainable development and fostering a safer and more environmentally responsible society.

B. Indian govt initiatives on safety and quality in EHS and Sustainability.

1. **Growing Awareness**

Govt campaigns and publicity

promote

EHS awareness, including Swachh Bharat Mission

for

environmental cleanliness.

2. Legal Framework

India

enforces

regulations like Factories Act, Environment Protection Act, and ISO standards

for

safety and quality.

Rules, Act, Policy and ISO related Safety

- Environment Protection Act, 1986
- Responsible Care; OSHAS 18001
- Factories Act, 1948, 1987
- Quality policy (ISO-9001),
- Environmental policy (ISO-14001)
- Occupational Health and Safety policy (ISO-18001).

3. Occupational Safety

Our govt

focuses on

worker safety,

conducting inspections,

and

promoting *safety training* across industries.

4. Rapid Industrialization

Indian govt

emphasizes sustainable growth,

incorporating safety measures

from

project inception and onwards

5.Technology Adoption

Indian govt

encourages

tech integration for EHS, like AI-driven safety monitoring

and

data analytics.

Prediction-based safety

6. Circular Economy

Indian govt

promotes

a circular economy model

to boost

resource efficiency and waste reduction.

Linear Economy

Make — Use — Dispose

Circular Economy

Resource input — Make — Use — Recycling

7. Green Building Initiatives

Our Governance

supports

green building initiatives

through

eco-friendly certification

programs.

8. Shift Towards Renewable Energy

Indian economy

promotes

renewable energy adoption

to

ensure sustainable development

and

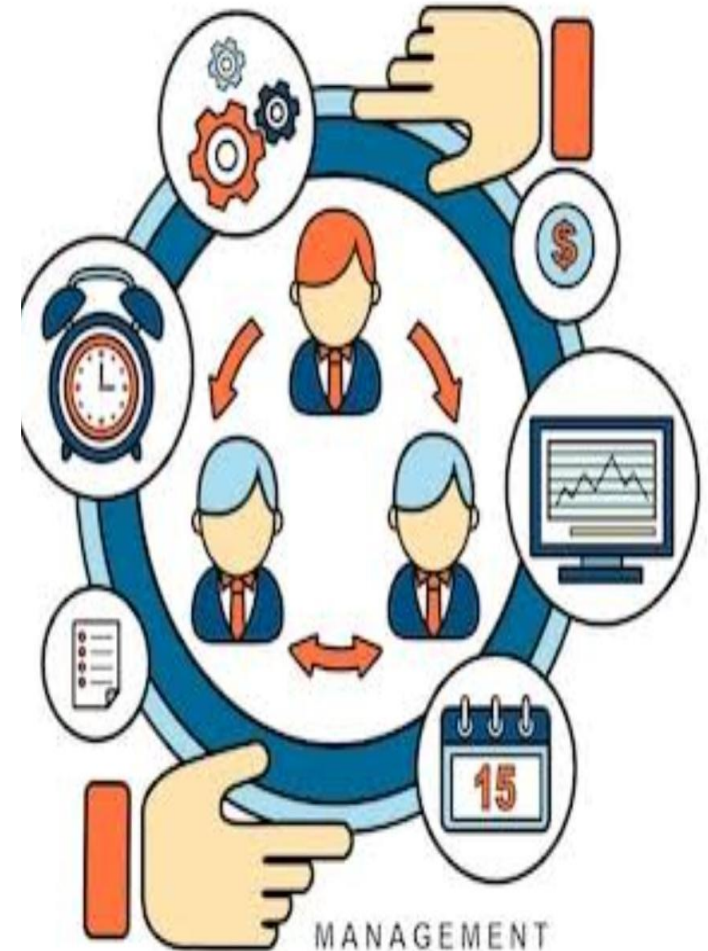**reduce greenhouse emissions.**

9. Safety Culture

Our country fosters safety culture

through

campaigns and incentives

to

prevent workplace accidents.

10. Collaboration and Partnerships

Our Government

facilitates stakeholder collaboration

for

EHS knowledge sharing

and

sustainable development initiatives.

C. Various departments, schemes, and advocacy groups related to each of the preceding points.

1. Growing Awareness

Department: Ministry of Environment, Forest and Climate Change (MoEFCC),4th Environment and Climate Sustainability Working Group (ECSWG) under G-20 .

Scheme: Swachh Bharat Mission (Clean India Campaign),National Afforestation Programme & Green India Mission, National Coastal Management Programme.

Advocacy Group: Centre for Science and Environment (CSE)

2. Legal Framework

Department: Central Pollution Control Board (CPCB)

Scheme: National Clean Energy and Environment Fund (NCEEF)

Advocacy Group: Centre for Environmental Law, WWF India (World Wide Fund for Nature-India)

3. Occupational Safety

Department: Directorate General Factory Advice Service & Labour Institutes (DGFASLI)

Scheme: Employees' State Insurance (ESI) Scheme

Advocacy Group: National Safety Council (NSC) India

4. Rapid Industrialization

Department: Ministry of Commerce and Industry

Scheme: Make in India

Advocacy Group: Confederation of Indian Industry (CII)

5. Technology Adoption

Department: Ministry of Science and Technology
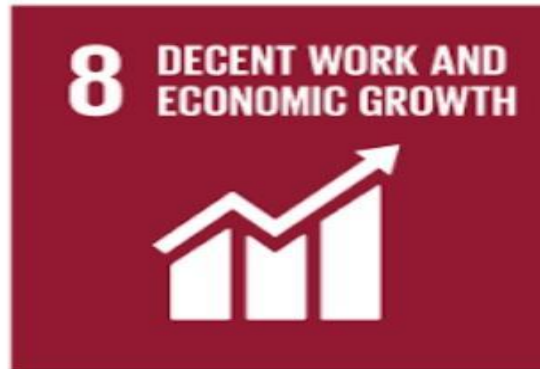
Scheme: Technology Development Board (TDB)

Advocacy Group: The Energy and Resources Institute (TERI)

6. Circular Economy

Department: NITI Aayog (National Institution for Transforming India

Scheme: Waste to Wealth Mission

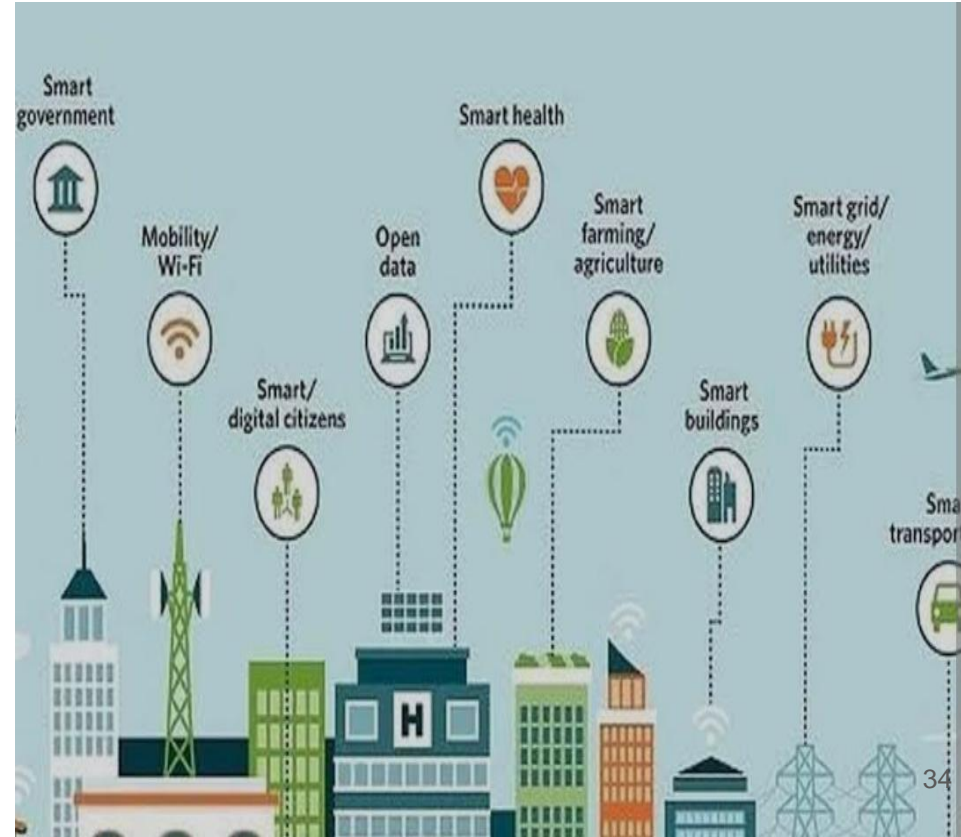**Advocacy Group: Indian Green Building Council (IGBC)**

7. Green Building Initiatives

Department: Ministry of Housing and Urban Affairs

Scheme: Smart Cities Mission

Advocacy Group: Green Business Certification Inc. (GBCI) India

Smart government

Mobility/Wi-Fi

Smart/digital citizens

Open data

Smart health

Smart farming/agriculture

Smart buildings

Smart grid/energy/utilities

Smart transport

8. Shift Towards Renewable Energy

Department: Ministry of New and Renewable Energy (MNRE)

Scheme: National Solar Mission

Advocacy Group: Council on Energy, Environment, and Water (CEEW)

9. Safety Culture

Department: Ministry of Labour and Employment

Scheme: National Occupational Safety and Health (OSH) Policy

Advocacy Group: Society of Indian Automobile Manufacturers (SIAM)

10. Collaboration and Partnerships

Department: **Ministry of Corporate Affairs**

Scheme: **Corporate Social Responsibility (CSR) initiatives**

Advocacy Group: **Confederation of Indian NGOs (CINGOs)**

Conclusion-II

This provides a **comprehensive template** of the various government departments, schemes, and advocacy groups related to each important point on EHS and sustainable development roadmap in India.

This collaboration between government bodies, organizations, and advocacy groups is essential for **driving positive change** and ensuring a safer and more sustainable future for India.

D.Cyber security and EHS & Quality-Due to Data-driven businesses

1. The evolving reach of global tech platforms demands heightened EHS and Quality considerations to ensure cyber activities align with safety and regulatory standards.

2. Involving citizens (Digital Citizens) and EHS-conscious NGOs empowers a collective effort to uphold cyber safety and quality standards across diverse industries.

3. Government support for EHS and Quality-focused cybersecurity education aids private entities, fostering a **secure digital environment** accessible to all. *Emphasis on Blockchain technology*

4. The interplay of global tech giants introduces unique EHS and Quality complexities, necessitating adaptable approaches to cybersecurity collaboration to prevent cyber crime for sustainability!

5.Active participation by the corporate sector (Firewall, antivirus and expertise) in domestic cybersecurity bolsters EHS and Quality standards, safeguarding critical infrastructure and digital assets.

Thanks!