



Federal Ministry for the  
Environment, Nature Conservation,  
Building and Nuclear Safety

# Implementation of the Sendai Framework Related to Chemical Accidents

## The Role of Public Authorities and the Private Sector

Georg ARENS

Division IG I 4/ Safety of Installations

German Federal Ministry for Environment, Nature Conservation, Building and Nuclear Safety



# Sendai Framework: The Role of States and Authorities

## III Guiding Principles

19. ...

(a) Each **State has the primary responsibility to**

1. **prevent and**

2. **reduce**

disaster risks. ...

(c) **Managing risk of disasters** is aimed at protecting persons and their property, health, livelihoods and productive assets, as well as cultural and environmental assets, while promoting and **protecting all human rights**, including the right of development;

(d) ...

(e) Disaster risk reduction and management ... **requires the full engagement of all State institutions** of an executive and legislative nature at national and local levels ...

State and all State institutions have the responsibility

1. to prevent disaster risks,

2. to reduce disaster risks, and

3. to manage disaster risks



## The Role of the Private Sector

**35. While States have the overall responsibility for reducing disaster risk, it is a shared responsibility between Governments and relevant stakeholders.**

**36. ... States should encourage**

**(c) Business, professional associations ...**

- **to integrate disaster risk management ... into business models and practices ...;**
- engage in **awareness-raising and training** for their employees and customers;
- engage in and **support research and innovation**, as well as **technological development** for disaster risk management;
- share and **disseminate** knowledge, practices and **non sensitive data**;
- and actively **participate** ... under the guidance of the public sector, in the **development of normative frameworks** and technical standards that incorporate disaster risk management;



## Priorities of the Sendai Framework and Approved Responsibilities:

Priorities of the Sendai Framework	States responsibilities	Establishment / private responsibilities
Understanding disaster risks	natural risks terrorism war attacks cyber attacks	technical risks cyber attacks maloperation sabotage
Strengthening disaster risk governance	Organisation of external <b>crisis squads</b> establish national, regional and local <b>emergency plans</b>	Organisation of internal crisis squads establish internal emergency plans
Investing in disaster risk reduction	improving coast protection, dikes, infrastructure, energy supply, creating flooding plains	strengthening technical constructions, improving safety measures and monitoring system
Enhancing disaster preparedness	<ul style="list-style-type: none"><li>• update regulations</li><li>• emergency drill</li><li>• emergency forces (firefighters, specialists, medical care)</li></ul>	<ul style="list-style-type: none"><li>• training of staff</li><li>• companies emergency forces</li><li>• establishing alert systems for staff and neighbours</li><li>• financial capacity for remedial actions</li></ul>



## Suggestions for the Implementation of the Sendai Framework:

1. According to the Sendai Framework it is the primary responsibility of any State and all State institutions
  - to prevent disaster risks,
  - to reduce disaster risks, and
  - to manage disaster riskscaused by natural or man-made hazards.
2. In cases of man-made hazards - like hazards due to the presence of hazardous substances - States shall require the „risk owner“ (operator of a site where hazardous substance can be present) to prevent and reduce disaster risks and mitigate consequences and take remedial actions in case of accidents.
3. In case of man-made hazards - like hazards due to the presence of hazardous substances - States shall apply the Polluter Pays-Principle and require the „risk owner“ (operator of a site where hazardous substance can be present) to take
  - a) in case of an imminent threat of (environmental) damage preventive actions,
  - b) where (environmental) damage has occurred remedial actions and
  - c) bear the cost for all preventive and remedial actions in case of accidents.



# The Role of the Private Sector:

## a) Responsibility

### **Seveso-Directive (2012/18/EU)**

**Operators should have a general obligation to take all necessary measures** to prevent major accidents, to mitigate their consequences and to take recovery measures.

### **CONVENTION ON THE TRANSBOUNDARY EFFECTS OF INDUSTRIAL ACCIDENTS**

#### Article 3. General Provisions

**3. The Parties shall ensure that the operator is obliged to take all measures necessary** for the safe performance of the hazardous activity and for the prevention of industrial accidents.

**4. To implement the provisions of this Convention, the Parties shall take appropriate legislative, regulatory, administrative and financial measures** for the prevention of, preparedness for and response to industrial accidents.

#### Article 8. **Emergency Preparedness**

The Parties shall ensure that preparedness measures are taken to mitigate transboundary effects of such accidents, **onsite duties being undertaken by operators.**



# The Role of the Private Sector:

## a) Responsibility

### OECD Guiding Principles for Chemical Accident Prevention, Preparedness and Response

Introduction:

The Guiding Principles address **all stakeholders**, ...

the **primary responsibility** for the safety of hazardous installations **rests with those who own and operate such installations**,

Golden Rules:

All **enterprises** that produce, use, store, or otherwise handle hazardous substances **should undertake, in co-operation with other stakeholders, the hazard identification and risk assessment(s)** needed

General Principles

1.3 ... **Industry's obligation to operate safely** applies to enterprises of all sizes that produce, use, handle, transport, store or dispose of hazardous substances, ...

1.5. **Management of hazardous installations has the primary responsibility** for operating installations safely and for developing the means to do so.



# The Role of the Private Sector:

## b) Liability

### **OECD Recommendation of the Council on Guiding Principles concerning International Economic Aspects of Environmental Policies (26 May 1972 - C(72)128)**

#### A. Guiding Principles

#### B. a) Cost Allocation: **The Polluter Pays Principle**

4. The principle to be used for allocating costs of pollution prevention and control measures ... is the so-called "Polluter-Pays Principle". This principle means that **the polluter should bear the expenses of** carrying out the above-mentioned **measures** decided by public authorities **to ensure that the environment is in an acceptable state.**

### **OECD Recommendation of the Council concerning the Application of the Polluter-Pays Principle to Accidental Pollution (7 July 1989 - C(89)88/FINAL)**

#### Application of the Polluter-Pays Principle

4. In matters of **accidental pollution risks**, the Polluter-Pays Principle implies that **the operator** of a hazardous installation **should bear the cost of reasonable measures to prevent and control accidental pollution** ... in order to protect human health or the environment.





# The Role of the Private Sector:

## b) Liability

### EU Directive on Environmental Liability (2004/35/CE)

#### Motivation (2)

The **fundamental principle** of this Directive should therefore be that **an operator** whose activity has caused the environmental damage or the imminent threat of such damage **is to be held financially liable**,...

#### Article 5 Preventive action

1. Where environmental damage has not yet occurred but there is an imminent threat of such damage occurring, **the operator shall**, without delay, **take the necessary preventive measures**.

#### Article 6 Remedial action

1. Where environmental damage has occurred **the operator shall**, ... take:
  - (a) **all practicable steps to immediately control**, contain, remove or otherwise manage the relevant contaminants and/or any other damage factors ...

#### Article 8 Prevention and remediation costs

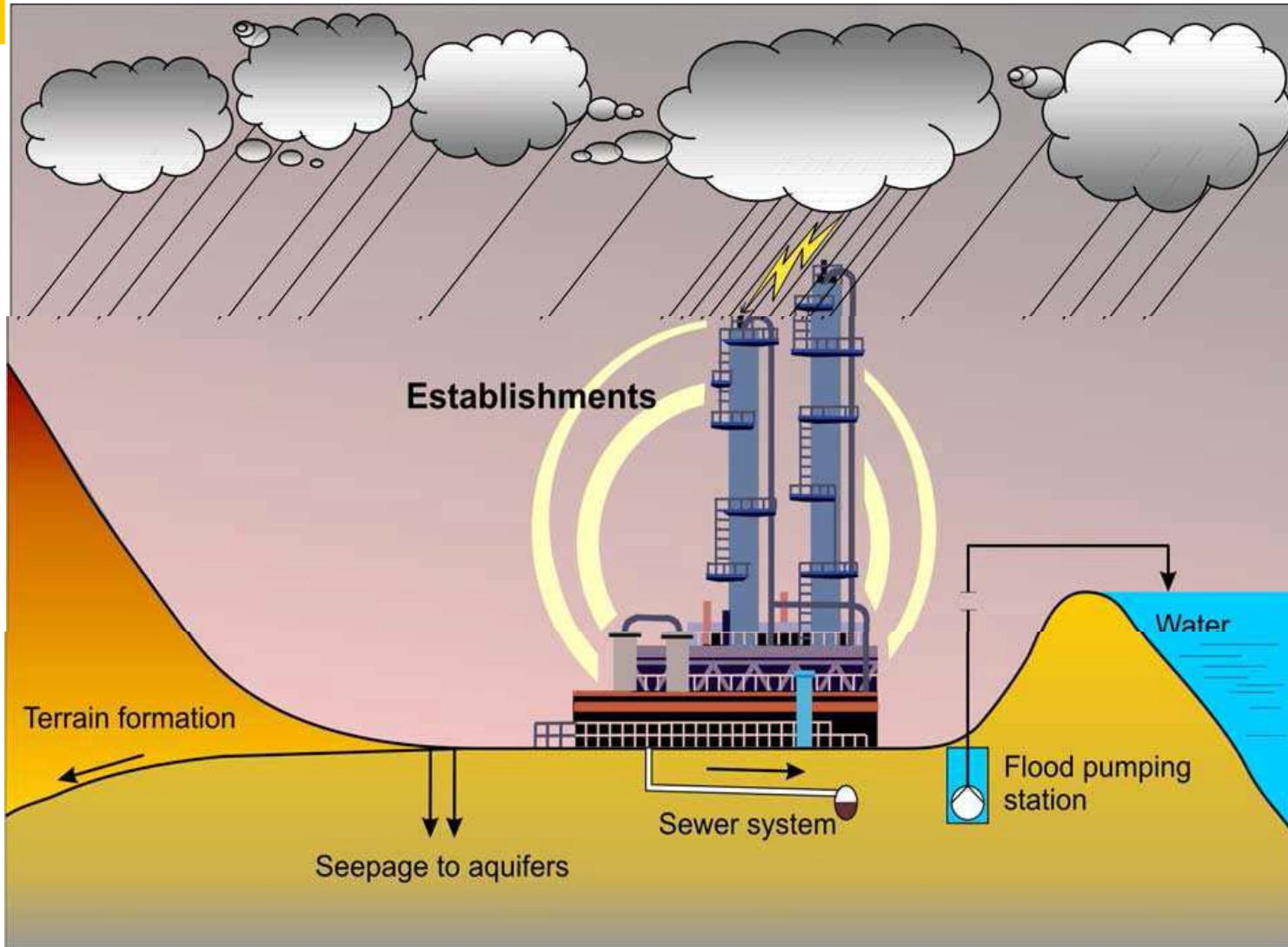
1. **The operator shall bear the costs for the preventive and remedial actions** taken pursuant to this Directive. ...



annual flood risk

0,5 percentil

states responsibilities: flood risk assessment



owners responsibilities: improvement of facility or site



owners responsibilities: recovery of damages  
financial precautions

stakeholder involved: insurances  
ngo's  
communities



Federal Ministry for the  
Environment, Nature Conservation,  
Building and Nuclear Safety

Thank You For Your Attention

**Georg Arens IG I 4**

Georg.Arens@bmub.bund.de

Robert-Schuman-Platz 3

D-53175 Bonn

**[www.bmub.bund.de](http://www.bmub.bund.de)**