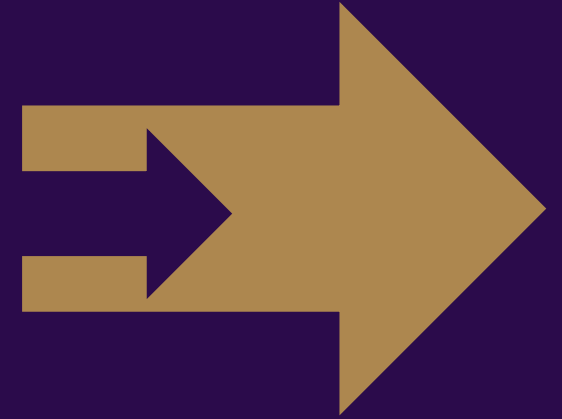




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Institute of Logistics  
and Transport**



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Together**

## **Harmonization of Rules concerning the Multimodal Carriage of Dangerous Goods in the ASEAN**

**Reshma Yousuf**

DGSA (UK), Founder CLLB  
Council Member CILT Malaysia

# About Myself

## Reshma Yousuf





# Agenda

- What are Dangerous Goods? How are these goods transported?
- Status of the ASEAN Agreements
- Addressing the Gaps through the Private Sector
- Recognizing the need for training and certification
- Professional Pathway offered by The Chartered Institute of Logistics and Transport



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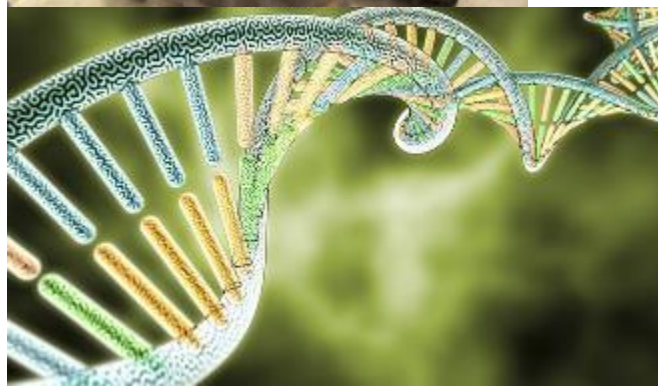
# What are Dangerous Goods?



# What are these Dangerous /Hazardous Goods?



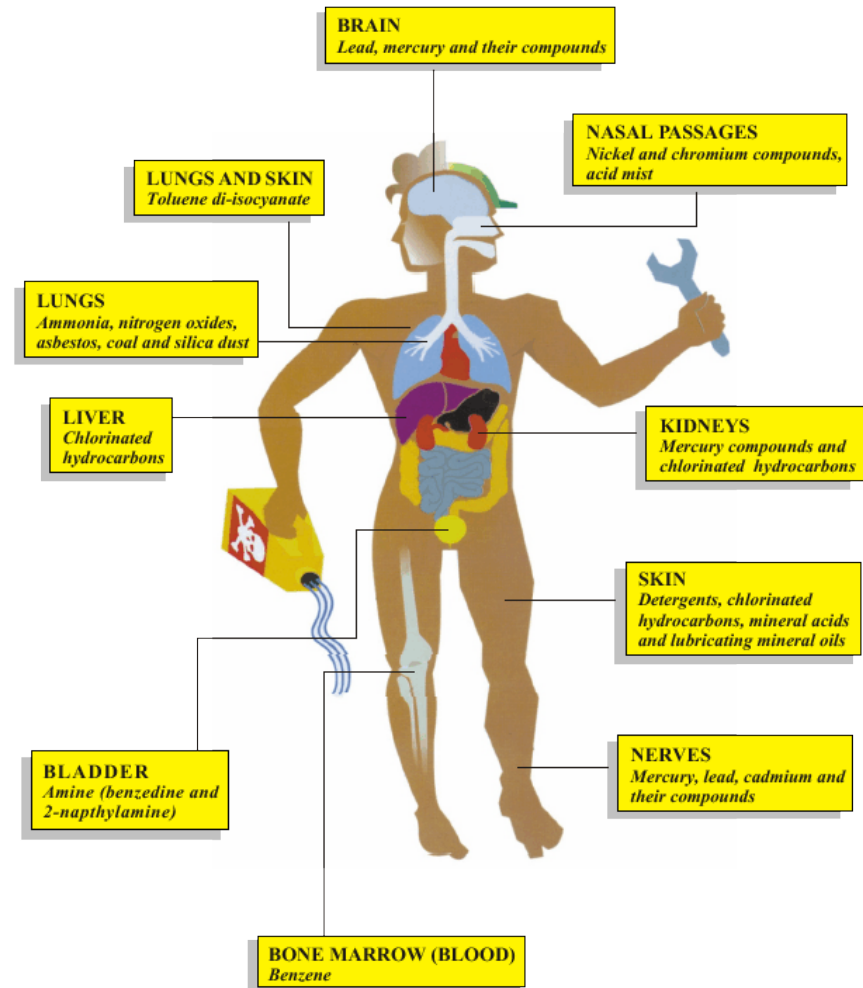
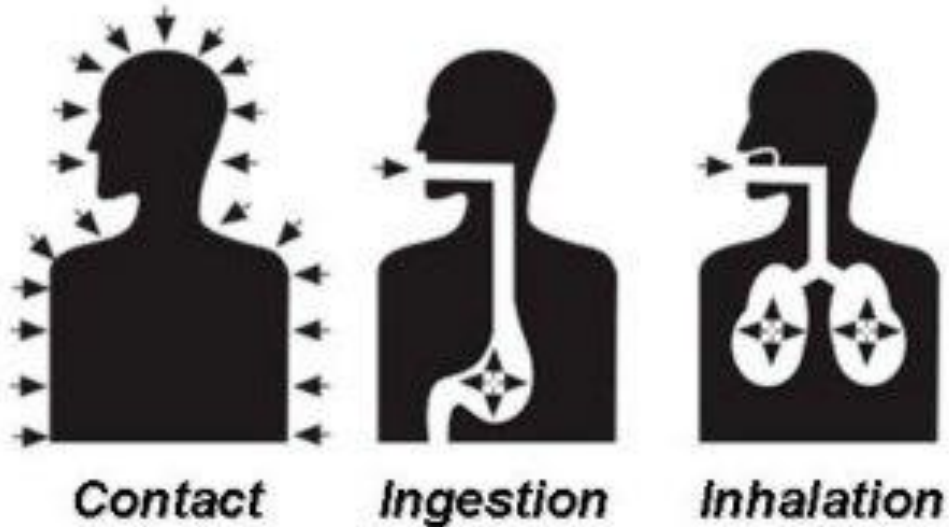
**Substances**



**Articles**

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# Has the Potential of Harming Lives



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# Destroying Property

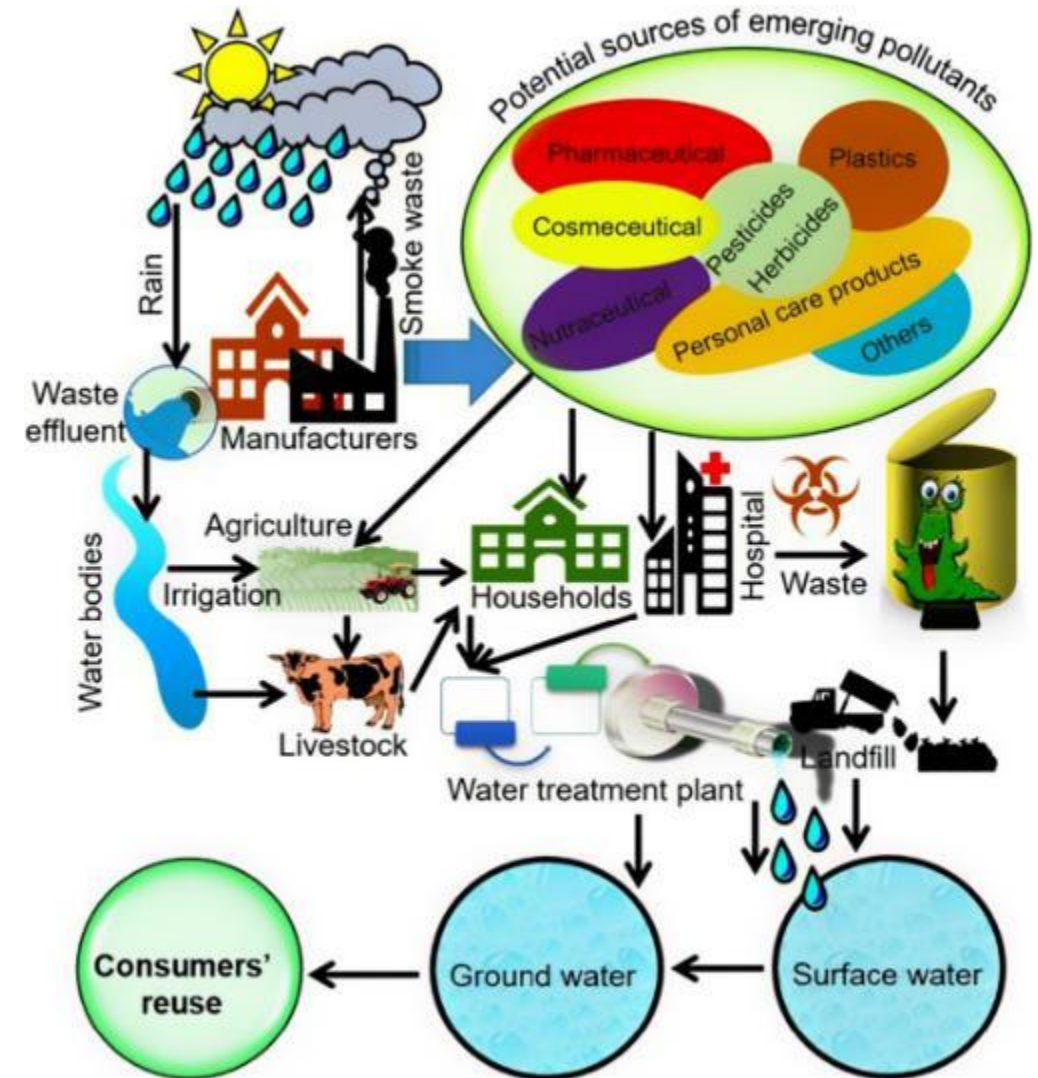


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# Damaging the Environment



<https://www.nst.com.my/news/nation/2021/04/681604/rm15m-water-pollution-fine-not-enough>



<https://www.sciencedirect.com/science/article/pii/S0160412018322013>

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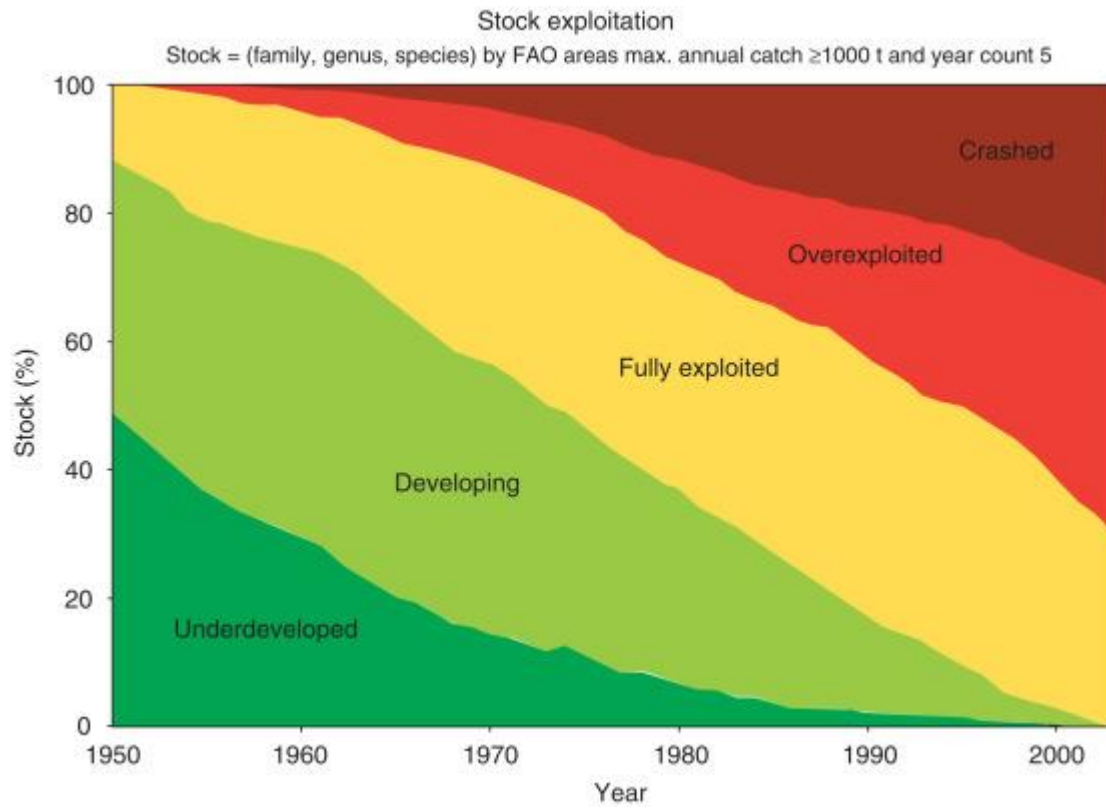
Why do we need  
these Goods?



NATURAL RESOURCE DEPLETION

# Depletion of Natural Resources

## Dependence on Chemical Substitutes



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## **Chemicals are used in Virtually Everything in our Modern Lives**

- ✓ **In our Food – Flavours, Colours and Fragrances**
- ✓ **In our Food-Chain – Pesticides, Insecticides, GMO**
- ✓ **In our Homes – Cleaners, Disinfectants, Paints, Gas Burners and Cylinders, Hair Products, Fragrances**
- ✓ **In our Hospitals – X-rays, Clinical Samples/Waste**

**Dangerous Goods are all around us and a part of us.**

How do these goods move?



**Air Transport has limitations on types and volumes of DG- usually high value/medical related items are airlifted**

**Substances/Chemicals are lower in value and move in large quantity by Sea**

**Large Volumes of Dangerous Substances – Large Scale Disasters at Sea and on Land**

**Substances/Chemicals take up 80% of the Risk in Shipping DG**



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# Hazards/Risks in Transporting Dangerous Goods

- Fire & Explosions – ship, ports & terminals, during land conveyance
- Corrosion, Chemical burns
- Poisoning, Infection
- Radiation
- Marine Environment pollution
- Ecological hazards
- Loss of lives & livelihood
- Threat from Terrorism



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# 2019 Disasters @ Sea



On Jan. 3<sup>rd</sup> 2019, *Yantian Express* caught fire off Canada's Eastern Seaboard. More than 260 boxes were destroyed. Three containers which could possibly have caused the fire, were identified. One of the containers was laden with Coconut Charcoal, which was erroneously declared Coconut Pellets.

On Jan. 29, the *Olga Maersk* was sidelined in Panama after a fire broke out in its engine room.



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# 2019 Disasters @ Sea



On Jan. 31<sup>st</sup> 2019, the *APL Vancouver* was stricken off the coast of Vietnam by a fire that started in a cargo bay.

On Feb. 13, a fire broke out in containers of charcoal on the *E.R. Kobe* near China. The ship was diverted to Hong Kong to unload the damaged boxes; three more containers caught fire as the ship continued on to Shanghai



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# 2019 Disasters @ Sea

Date	Ship name	Capacity (teu)	Operator (parent company)	Location of incident
09-Aug	<i>APL Le Havre</i>	10,106	APL (CMA CGM)	Off Indian west coast
25-May	<i>KMTC Hong Kong</i>	1,585	KMTC	Laem Chabang port
16-May	<i>Grande Europa</i> [1]	716	Grimaldi Lines	Off Mallorca coast
10-Mar	<i>Grande America</i> [1]	1,321	Grimaldi Lines	Off France Atlantic coast
13-Feb	<i>E.R. Kobe</i>	5,754	Gold Star Line (Zim)	Off China coast
31-Jan	<i>APL Vancouver</i>	9,200	APL (CMA CGM)	Off the Vietnamese coast
29-Jan	<i>Olga Maersk</i>	3,267	Hamburg Sud (Maersk Line)	On route from Panama to Cartagena
03-Jan	<i>Yantian Express</i>	7,179	Hapag-Lloyd	800 nm off Canada's east coast

The London-based Drewry Shipping Consultants in its [Container Insight Weekly](#) listed eight significant fires between Jan. 3 and Aug. 9 2019 on container and container/roll-on, roll-off ships.

# 2020 Disasters



<https://www.newscientist.com/article/2251076-beirut-explosion-what-caused-the-blast-and-what-else-do-we-know/>

## Beirut explosion

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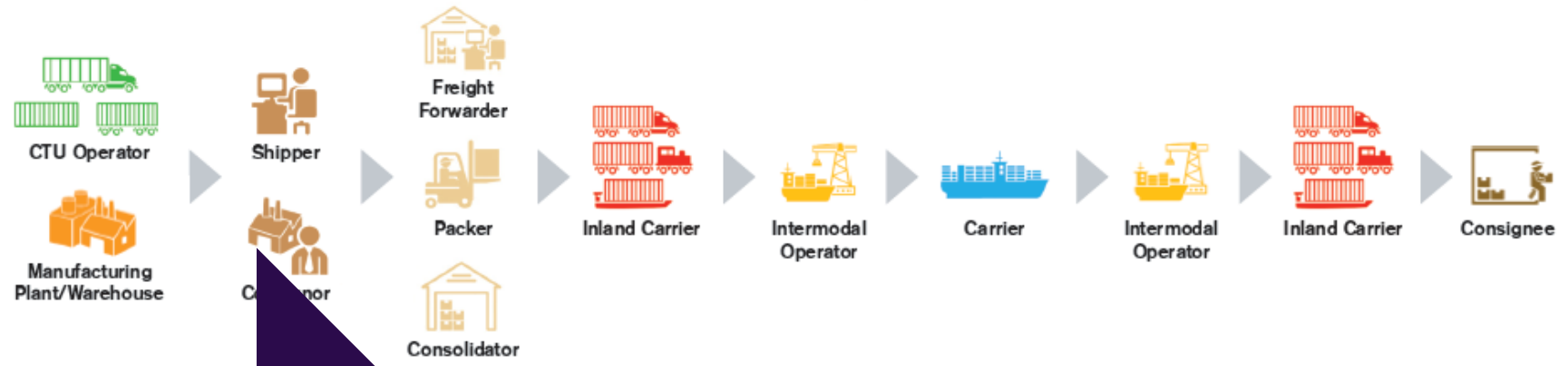
# 2021 Disasters @ Sea

## X-Press Pearl

<https://splash247.com/x-press-pearl-was-denied-entry-in-india-and-qatar-before-catching-fire-off-colombo/>

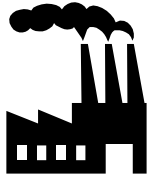


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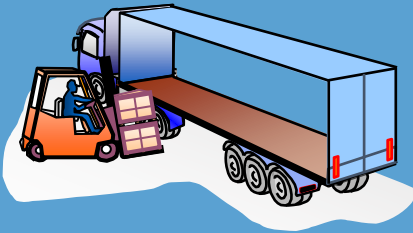


Who is Responsible for the safe movements of these goods?

# Chain of Responsibility



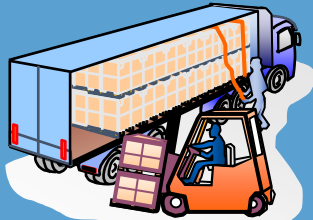
**Classification of dangerous goods**  
**Packing, marking and labelling**  
**Documentation**



**Loading of Dangerous Goods**



**Transport of Dangerous Goods**



**Unloading of Dangerous Goods**

**Cleaning after unloading**

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# Shipper's Responsibility

## Identify



## Classify



## Communicate

<p><b>Flame over circle</b></p> <ul style="list-style-type: none"> <li>• Oxidizers</li> </ul>	<p><b>Flame</b></p> <ul style="list-style-type: none"> <li>• Flammables</li> <li>• Pyrophorics</li> <li>• Self-Heating</li> <li>• Lints Flammable Gas</li> <li>• Self Reactives</li> <li>• Organic Peroxides</li> </ul>	<p><b>Explosion bomb</b></p> <ul style="list-style-type: none"> <li>• Explosives</li> <li>• Self Reactives</li> <li>• Organic Peroxides</li> </ul>
<p><b>Skull and crossbones</b></p> <ul style="list-style-type: none"> <li>• Acute toxicity (severe)</li> </ul>	<p><b>Corrosion</b></p> <ul style="list-style-type: none"> <li>• Corrosives</li> </ul>	<p><b>Gas cylinder</b></p> <ul style="list-style-type: none"> <li>• Gases under pressure</li> </ul>
<p><b>Health Hazard</b></p> <ul style="list-style-type: none"> <li>• Carcinogen</li> <li>• Mutagenicity</li> <li>• Reproductive Toxicity</li> <li>• Respiratory Sensitizer</li> <li>• Target Organ Toxicity</li> <li>• Aspiration Toxicity</li> </ul>	<p><b>Environment</b></p> <ul style="list-style-type: none"> <li>• Aquatic Toxicity</li> </ul>	<p><b>Exclamation mark</b></p> <ul style="list-style-type: none"> <li>• Irritant</li> <li>• Skin Sensitizer</li> <li>• Acute Toxicity (harmful)</li> <li>• Narcotic effects</li> <li>• Respiratory Tract Irritation</li> <li>• Hazardous to Ozone Layer</li> </ul>

MATERIAL SAFETY DATA SHEETS																												
Product Name	Revision / Issue Date																											
Bally Liquid	Issue 1 / 2018																											
<p><b>1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER</b></p> <p>1.1 Product Name: Bally Liquid</p> <p>1.2 EINECS Number: Not Available</p> <p>1.3 Recommended Use: Laundry Detergent</p> <p>1.4 Supplier: Bally, Malaysia Sdn. Bhd.</p> <p>1.5 Address: 101-102, Jalan...</p> <p>1.6 Phone: +603-2090-1234</p> <p>1.7 Fax: +603-2090-5678</p> <p>1.8 Email: info@bally.com</p> <p>1.9 Emergency Telephone Number: 999</p>																												
<p><b>2. HAZARD IDENTIFICATION</b></p> <p>2.1 Hazard Classification: Not Hazardous Solution, Not Corrosive Solid</p> <p>2.2 Risk Phrase: N/A</p> <p>2.3 Safety Phrase: N/A</p>																												
<p><b>3. COMPOSITION INFORMATION ON INGREDIENTS</b></p> <table border="1"> <thead> <tr> <th>Chemical Name</th> <th>CAS Number</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>Sodium Hydroxide</td> <td>1310-73-2</td> <td>10</td> </tr> <tr> <td>Sodium Hypochlorite</td> <td>7762-95-8</td> <td>50</td> </tr> <tr> <td>Water</td> <td>7732-18-5</td> <td>35</td> </tr> <tr> <td>Quaternary Ammonium Chloride</td> <td>106465-38-7</td> <td>5</td> </tr> <tr> <td>Perfume</td> <td>101-061-0</td> <td>1</td> </tr> <tr> <td>Preservative</td> <td>101-061-0</td> <td>1</td> </tr> <tr> <td>Enzyme</td> <td>101-061-0</td> <td>1</td> </tr> <tr> <td>Flavoring</td> <td>101-061-0</td> <td>1</td> </tr> </tbody> </table>		Chemical Name	CAS Number	Percentage	Sodium Hydroxide	1310-73-2	10	Sodium Hypochlorite	7762-95-8	50	Water	7732-18-5	35	Quaternary Ammonium Chloride	106465-38-7	5	Perfume	101-061-0	1	Preservative	101-061-0	1	Enzyme	101-061-0	1	Flavoring	101-061-0	1
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Flavoring	101-061-0	1																										

## Package



## Mark & Label



- Orientation label (optional)
- Primary class label
- Standardized UN certification (according to standard)
- Shipping name
- UN number
- Subsidiary class label

## Placard Transport Unit

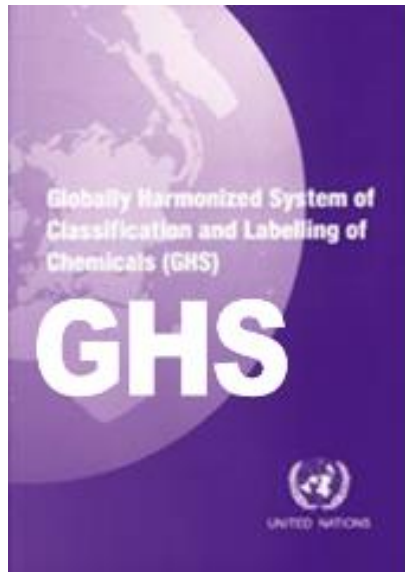


## Declare & Describe

Item No.	Description	Quantity	Weight	Volume	UN No.	Class	Subsidiary Class	Label	Placard
1	Bally Liquid	1000	1000	1000	2200	3		Flammable	Flammable
2	...	...	...	...	...	...	...	...	...

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# Shipper uses the Guidance of



Classification

Label

Safety Data Sheet



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# Transport of DG Mode-Centric Codes

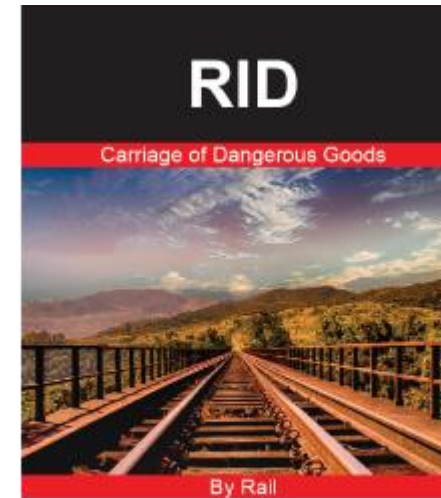


Ocean / Sea Transport



Air Transport

## Road / Rail Transport



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# Status of the ASEAN Economic Community

**REGULATIONS**



**RULES**

**FINANCE**



**STANDARDS**



**POLICIES**



# Transport Cooperation between ASEAN Member States

- Transport Cooperation in the ASEAN has been pursued since the 1980s based on consecutive 5-year plans.
- Many initiatives were launched since then such as the ASEAN transport Action Plan – ASEAN Highway Network, the Singapore-Kunming Rail Link, the Roadmap Integration of the Air Travel Sector
- 3 framework agreements were incorporated in the AEC (ASEAN Economic Community) Blueprint.



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# Framework Agreements in the AEC- Transport Facilitation

## AFAFGIT – ASEAN Framework Agreement on the Facilitation of Goods in Transit

**Objective:** mutually allowing transit amongst AMS

- Protocol 1: Designation of Transit Transport Routes and Facilities
- Protocol 2: Designation of Frontier Posts
- Protocol 3: Types and Quantities of Road Vehicles
- Protocol 4: Technical Requirements for Vehicles
- Protocol 5: Motor Vehicle 3<sup>rd</sup> Party liability Insurance
- Protocol 6: Railway borders and Interchange Stations
- Protocol 7: Customs Transit System
- Protocol 8: Sanitary and Phytosanitary Measures
- Protocol 9: Dangerous Goods

---

# Framework Agreements in the AEC- Transport Facilitation

## **AFAMT – ASEAN Framework Agreement on Multimodal Transport**

**Objective:** Specify Legal Liability of MTOs, consigners and the standard format of transport contracts.

## **AFAFIST – ASEAN Framework Agreement on Facilitation of Inter-State Transport**

**Objective:** allow Transport Operators that are registered in an AMS to provide transportation services in other AMS.

The success of AEC is the full operationalization of these agreements

---

# Stumbling Blocks

1. Road Traffic Rules and Regulations challenges – left-hand drive versus right-hand drive
2. Inter-Ministerial coordination
3. Some AMS still need to work on their local laws.

Despite the fact that the main agreement and more than half of the protocols have been enacted – the agreements have not been implemented as they have been stalled by delays in the ratification of key protocols and in the enactment of necessary domestic laws and regulations.

**So where do we go from here to ensure dangerous goods are transported safely and in compliance to International Regulations?**



The Chartered  
Institute of Logistics  
and Transport

We are stronger together.

# WE ARE CILT

Celebrating 100 years supporting transport  
and logistics professionals



# Bridging the Gap with Professionals



## We are CILT

We are the leading **professional body** for **everyone** who works in supply chain, logistics and transport. We are a **global family**, representing **professionals** at all levels across all sectors, with a mission to give individuals and organizations access to the tools, knowledge and the connections vital to success in the logistics and transport industry.



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# Bridging the Gap with Professionals

## CILT Global Community International Certification & Recognition

### International & National Councils

#### NEXT GENERATION

Development of Young Professionals

- Professional Qualifications & Education
- Mentoring
- Networking



Empowerment of Women in the industry

- Career & Leadership Foundation Programme
- Sustainability Leadership Principles
- Networking and Development Programmes



Development Business and Academic Partners

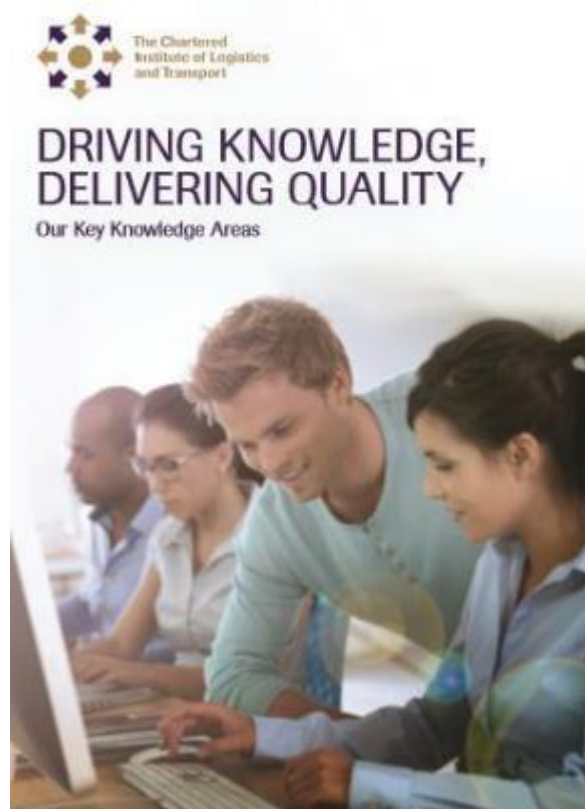
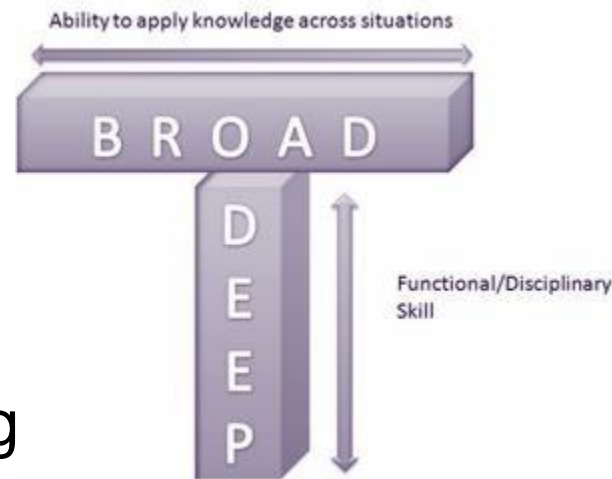
- Networking & Business Matching
- Global Best Practices Sharing
- Global Industry Bulletin



# Bridging the Gap with Professionals

## Our Education Context

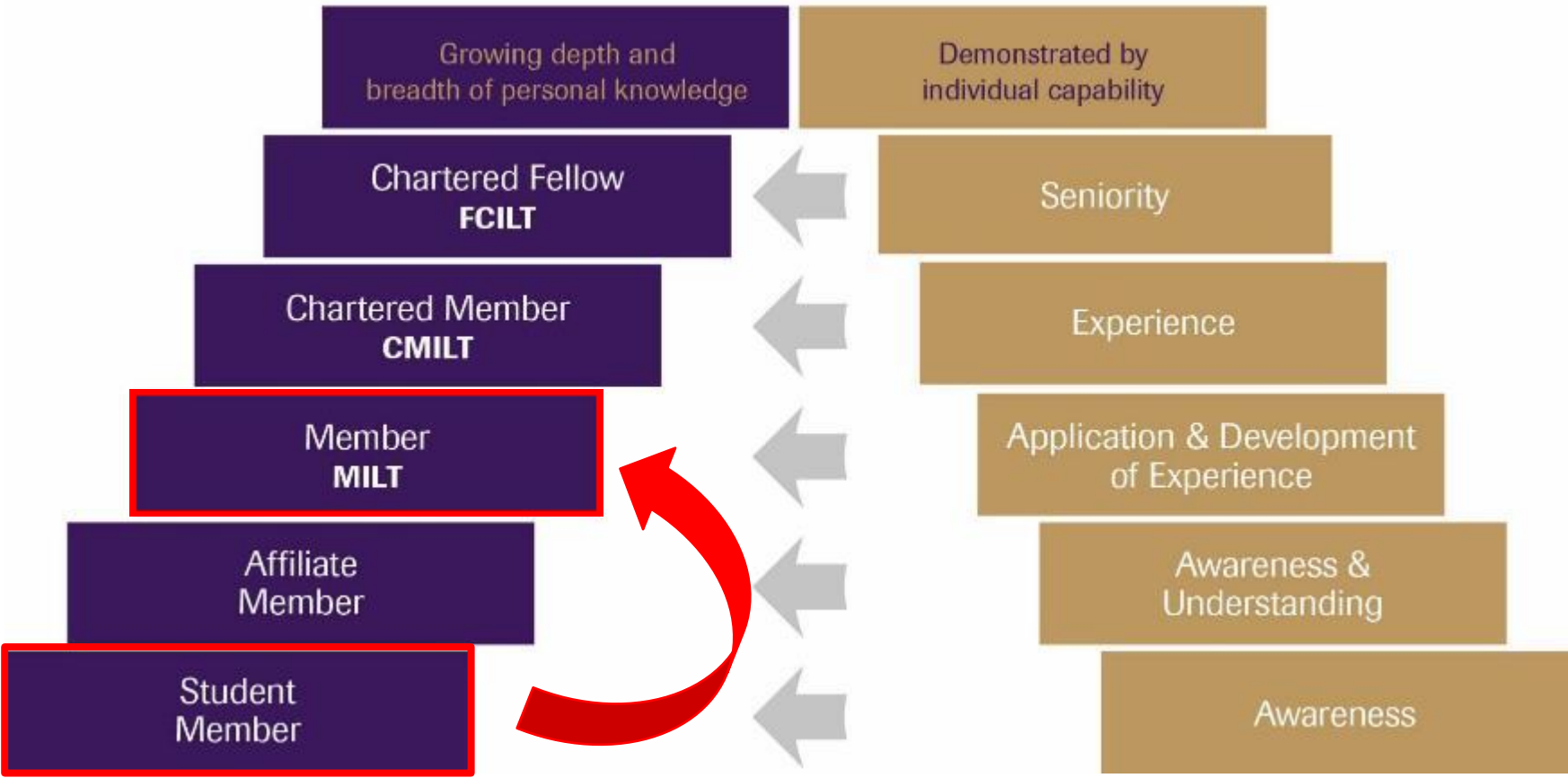
- The importance of developing rounded professionals
- A sound knowledge covering 'depth' and 'breadth'
- Links into lifelong learning path



- Our global standards make us special and stand out

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# Developing Professionals



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and Transport

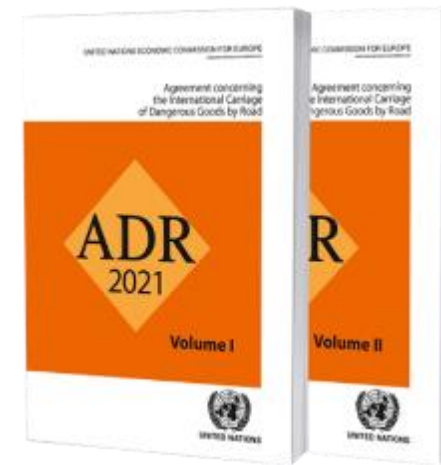
# Professional Qualification & Education – Dangerous Goods Logistics



**IMDG Code Training  
Approved by Marine  
Department of Malaysia**



**IATA DGR Training  
Approved by Civil Aviation  
Agency of Malaysia**



**Training for:**

- 1. Transport Personnel**
- 2. Driver & Vehicle Crew**
- 3. Dangerous Goods Safety Advisor**

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# Where you will find us supporting training and professional development



CILT country organisations  
(many with training provision)



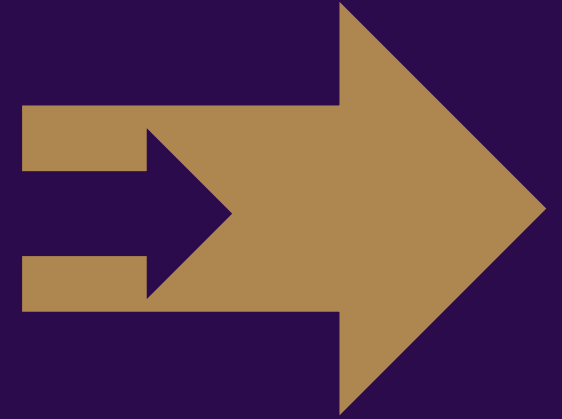
Training partner presence where  
no branch formally launched



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and Transport**



# Thank You

**Reshma Yousuf**

DGSA (UK), Founder CLLB  
Council Member CILT Malaysia