

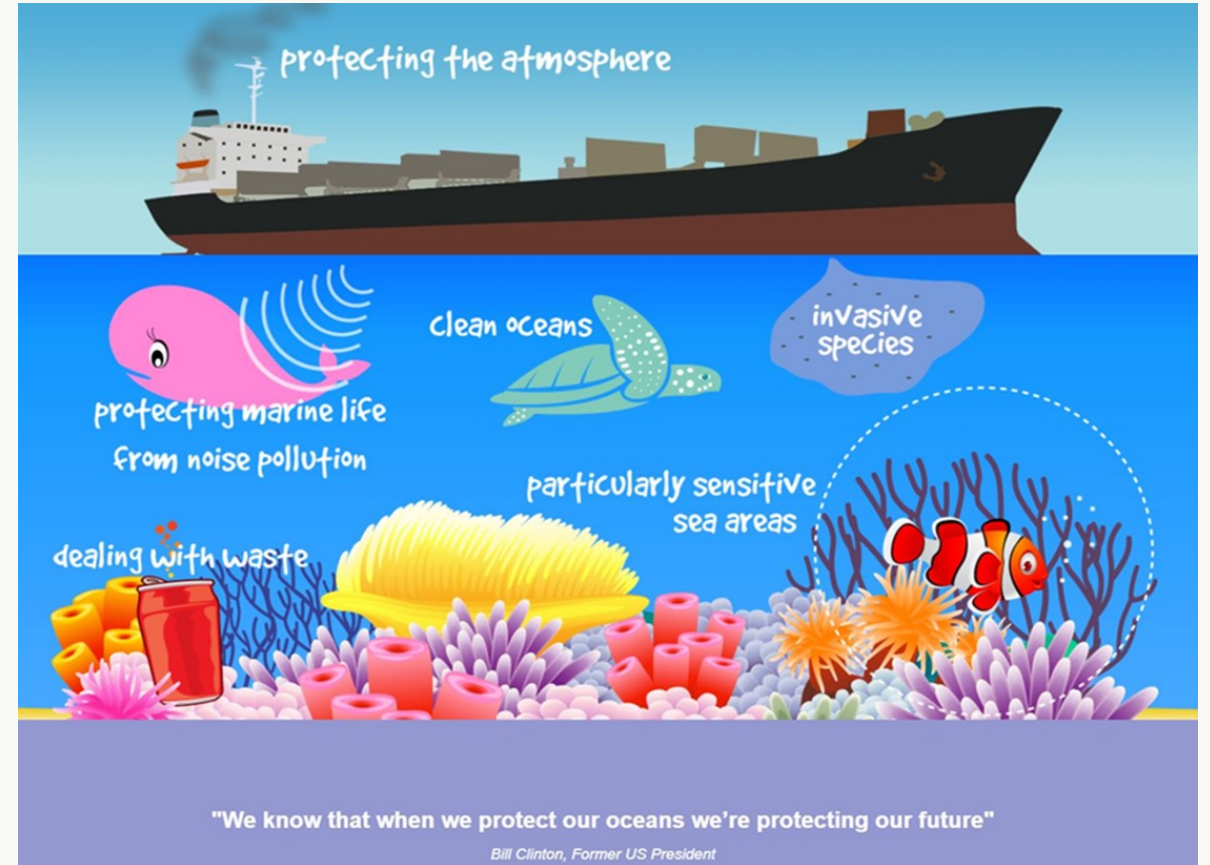


Marine environmental effects of jettisoned waste from commercial spaceflight activities

COPUOS 67th session (19-28 June 2024)

Talk outline

- IMO
- London Convention and Protocol
- Disposal of wastes at sea
- Space launch debris
- Marine environmental effects
- Regulatory gap
- Way forward



The International Maritime Organization



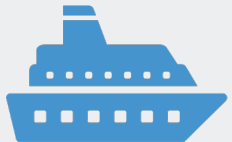
UN Specialized Agency mandated to set a **global regulatory framework** to ensure safe, secure and efficient shipping on cleaner oceans



More than 50 international instruments regulating safety and environmental performance adopted



176 Member States & 3 associate members
143 observer organizations (IGOs and NGOs)



IMO regulates the over 50,000 merchant ships trading worldwide

“Safe, secure and efficient shipping on cleaner oceans”

London Convention and London Protocol

Global treaties that regulate the prevention of pollution from dumping of wastes at sea

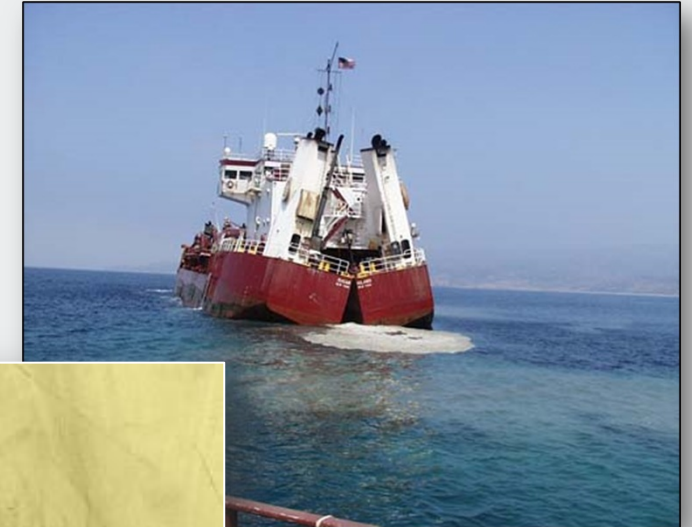
The London Convention 1972 (LC) - **Permissive**

- One of the first global conventions to protect the ocean from human activities
- In force since 1975
- Currently **87** Contracting Parties

The London Protocol 1996 (LP) - **Precautionary**

- More modern and comprehensive global treaty
- Will eventually replace LC
- In force since 2006
- Currently **54** Contracting Parties

Total: **101** LC/LP Parties



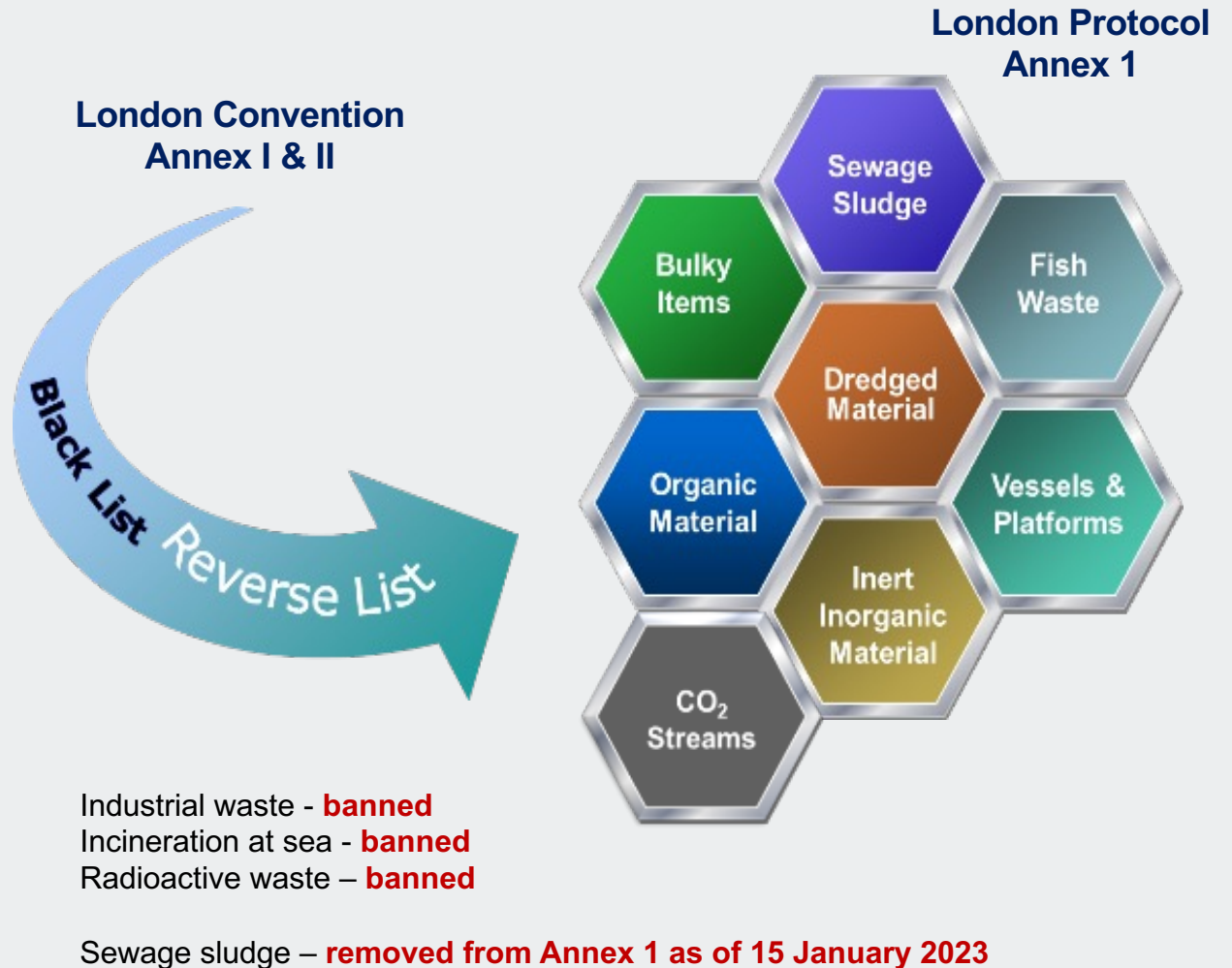
What is dumping & which wastes can may be considered for dumping

Dumping is “any deliberate disposal into the sea of wastes or other matter from vessels, aircraft, platforms or other man-made structures.”

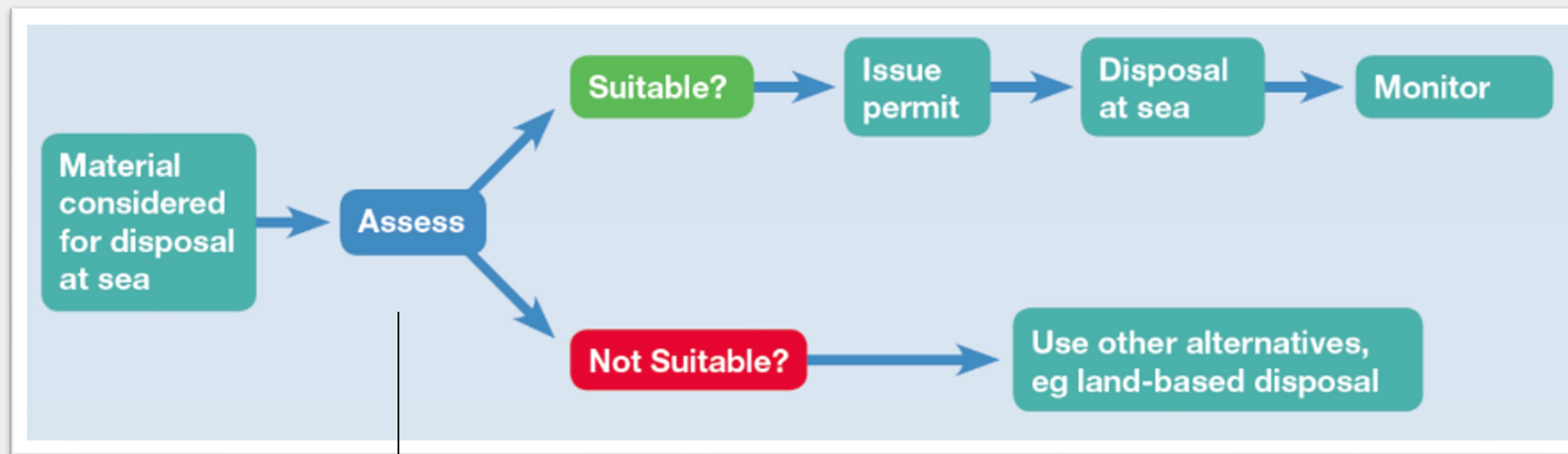
- Includes storage of wastes in the seabed.
- Includes abandonment or toppling at a site.

Dumping is not:

- Operational discharges from vessels or offshore installations.
- Pipeline discharges from coasts or cities.
- Wastes discharged into rivers and out to sea.
- Placement of matter for a purpose other than disposal.



How does it work at the national level?



To support this assessment, a series of **waste assessment guidelines** have been developed, both **generic guidance** and **specific guidance** for each type of waste



Marine environmental effects of jettisoned waste from commercial spaceflight activities

- In 2018 concerns raised by Parties
- Potential impacts on the marine environment arising from such debris:
 - Physical disturbance of seabed/org
 - Input of toxic substances
 - Input of litter
 - Input of anthropogenic sound
 - Collision risk
- Therefore an intersessional Correspondence Group on the issue was established



Marine environmental effects of jettisoned waste from commercial spaceflight activities

- LC/LP Secretariat/UNOOSA Secretariat
- Third United Nations Conference on the Exploration and Peaceful Uses of Outer Space (UNISPACE III), held in Vienna in 1999
 - 33 recommendations were adopted (A/CONF.184/6) including recommendation 1.a, which states:

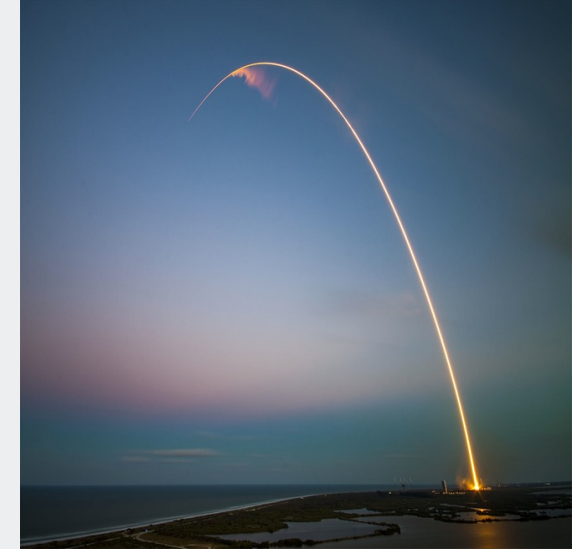
“Protecting the Earth’s environment and managing its resources: action should be taken:

(v) To ensure, to the extent possible, that all space activities, in particular those which may have harmful effects on the local and global environment, are carried out in a manner that limits such effects and to take appropriate measures to achieve that objective.”

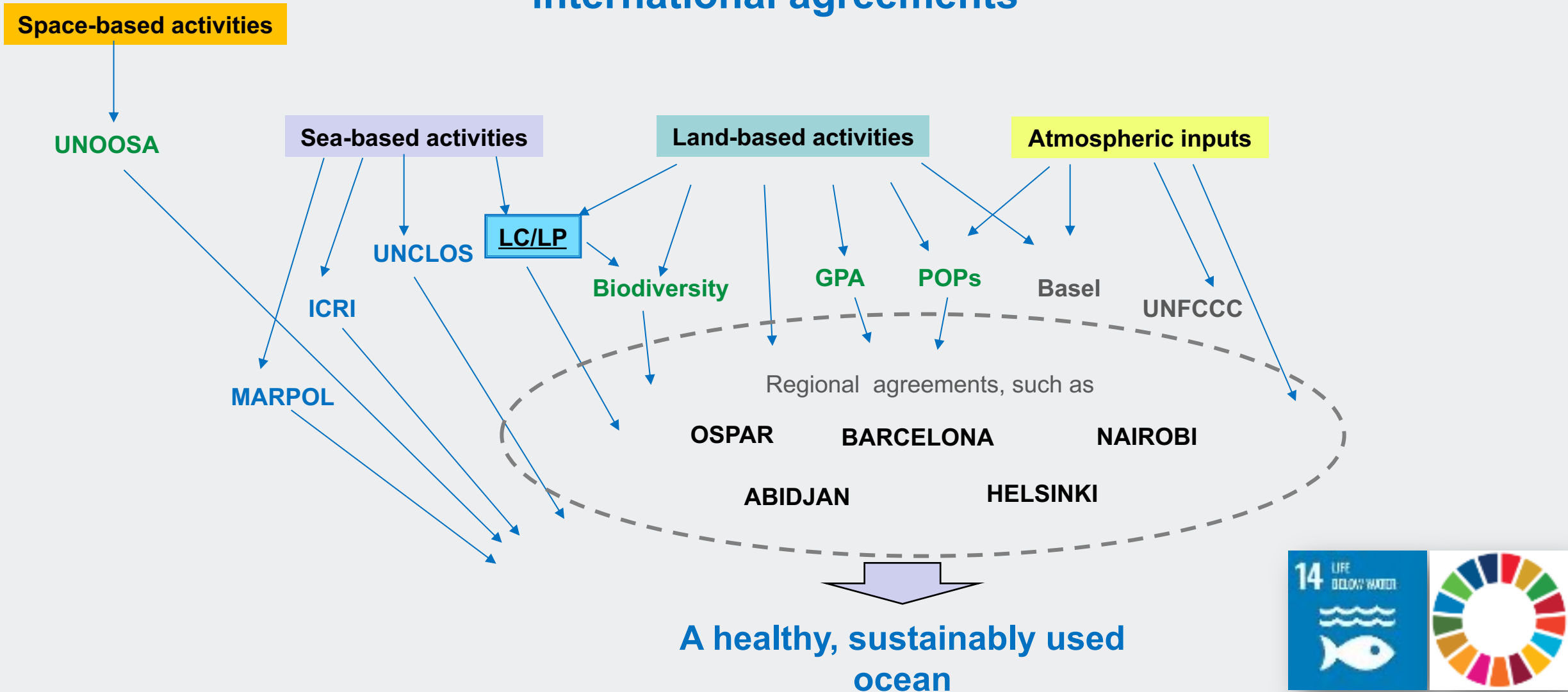


Way forward

- Regulatory gap identified
- Lack of information therefore difficult to provide a more comprehensive overview of the nature and scale of the deposition of space launch vehicle components into the marine environment, and therefore its likely cumulative impacts
- LC/LP Parties invited to report on such activities and the assessment of their impacts on the marine environment
- Engagement with UNOOSA, COPUOS and its Member States
- Ensure any impacts from these activities can be considered and reduced – *joint guidelines*?



Relationship between global and regional international agreements



Thank you for listening

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