Avoiding the fate of the dinosaurs with the help of lawyers? Legal aspects of planetary defence

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Once upon a time...
...some 65 million years ago...
What on Earth was that???
NO MORE DINOSAURS!
Fast forward to today:

- Association of Space Explorers in 2005:
  1. Science available to detect asteroids long in advance
  2. Technology ≈ available to mitigate threats
  3. International consultation & decision-making process *absent*
As for #1: Apophis 2005 – 2029??

There have been very few sightings of Apophis, which orbits the sun once every 324 days, moving at around 30km per second.

It is thought to be about 390m wide, estimated from its brightness.

When the asteroid comes close to the Earth in 2029, it will be visible to the naked eye.

If Apophis hits the Earth in 2036, it would land somewhere in the eastern hemisphere and release around 1,600 megatons of energy. In comparison, the 1883 eruption of Krakatoa was roughly the equivalent of 200 megatons.
As for #2: ‘Gravity tractor’ ...
... or ‘kinetic impactor’ ...
... or the nuclear option ...?!
As for #3: international approach...?
 ASE PATM

◆ 2007: ASE established Panel on Asteroid Threat Mitigation, presenting report including key legal & institutional issues to be discussed & solved

◆ University of Nebraska-Lincoln acted as Secretariat
Legal issue #1

◆ General international responsibility to protect – also other states?
Legal issue #2

- Liability if something goes wrong – even if part of an effort to help...?
Legal issue #3

- Making sure institutional mechanisms exist to coordinate international action
Legal issue #4

- Prohibition on nuclear explosions in outer space – even if necessary to save mankind?
Legal issue #5

◆ Involvement private entrepreneurs ...?!
Issue picked up in UN framework

- Committee on the Peaceful Uses of Outer Space
- Scientific & Technical Subcommittee
- Action Team 14 prepared for the next steps
- Space Missions Planning & Advisory Group
  - Mandate: to develop a strategy on how to react on a possible asteroid impact threat, coordinating technological knowhow of agencies to recommend specific efforts related to asteroid threats, including deflection missions
  - Includes Ad-Hoc Legal Working Group
Hoped-for result:
thank you