WMD



## PEER DISCUSSION

• Does it really make sense to talk about WMD?

#### NUCLEAR PROLIFERATION

- In order to understand nuclear proliferation, you must understand the nature of nuclear technology and the ways we try to control it.
  - Nuclear Energy
  - Nuclear Weapons
  - NPT and systems of control

#### CASE STUDY: IRAN AND JOINT COMPREHENSIVE PLAN OF ACTION

• After years of negotiations, in 2015 US, UK, Russia, China, France, EU (P5+1) and Iran signed the JPCOA.

#### • Iran:

- limits centrifuges and phases out a specific type
- limits uranium enrichment (no accumulation above 3.67%, and only 300 kg or less)
- redesign and rebuild a heavy water reaction at Arak, transition to light water reactors
- Accedes to NPT Additional Protocol and IAEA monitoring

#### CASE STUDY: IRAN AND JOINT COMPREHENSIVE PLAN OF ACTION

- P5+1
  - Lift all UNSC, multilateral and national nuclear-related sanctions
- Dispute resolution
  - If Iran or P5+1 think the other side is not in compliance, complaint is referred to Joint Commission
  - If Joint Commission fails to resolve after 15 days, complaint referred to Ministers of Foreign Affairs, which can consider for 15 days. Possibility of a non-binding opinion from Advisory Board.
  - If still no resolution, the UNSC must vote on a resolution to continue the lifting of sanctions. If any P5 member vetos, sanctions 'snap back'

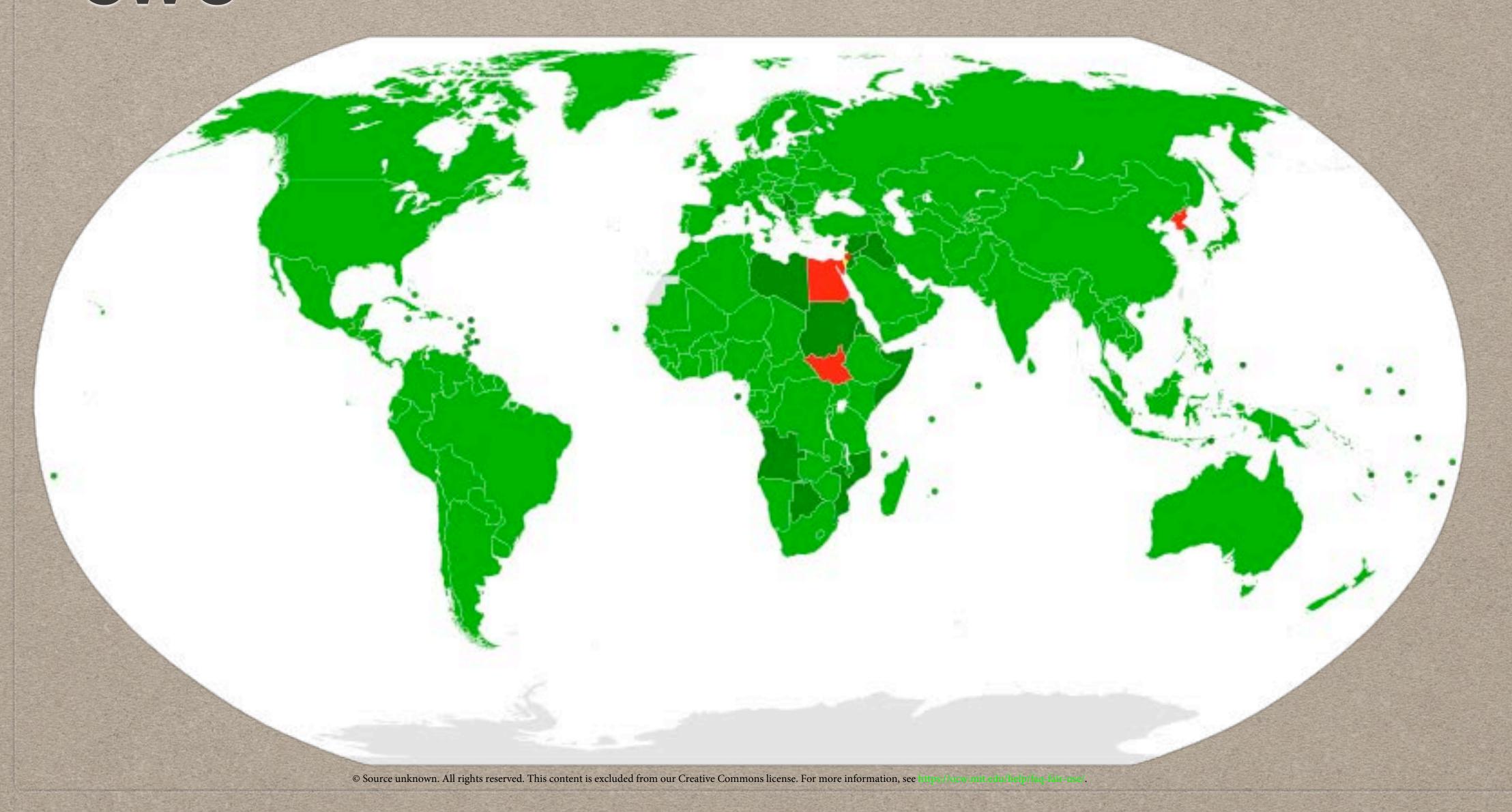
### CHEMICAL WEAPONS

- Multiple classes of weapons
  - Asphyxiants: Chlorine gas
  - Blistering agents: Mustard gas
  - Blood agents: Cyanide
  - Nerve agents: Sarin, VX
  - Riot control: Tear gas (CS)

#### CHEMICAL WEAPONS

- Area effect
- Difficult to weaponize for non-state actors (Aum Shinryko tried)
- Not legal under Chemical Weapons Convention (1993/1997)
  - Monitoring and non-proliferation managed by Organization for Prohibition of Chemical Weapons
- Dual use is still a problem!
- Syria and the red line?

# CWC



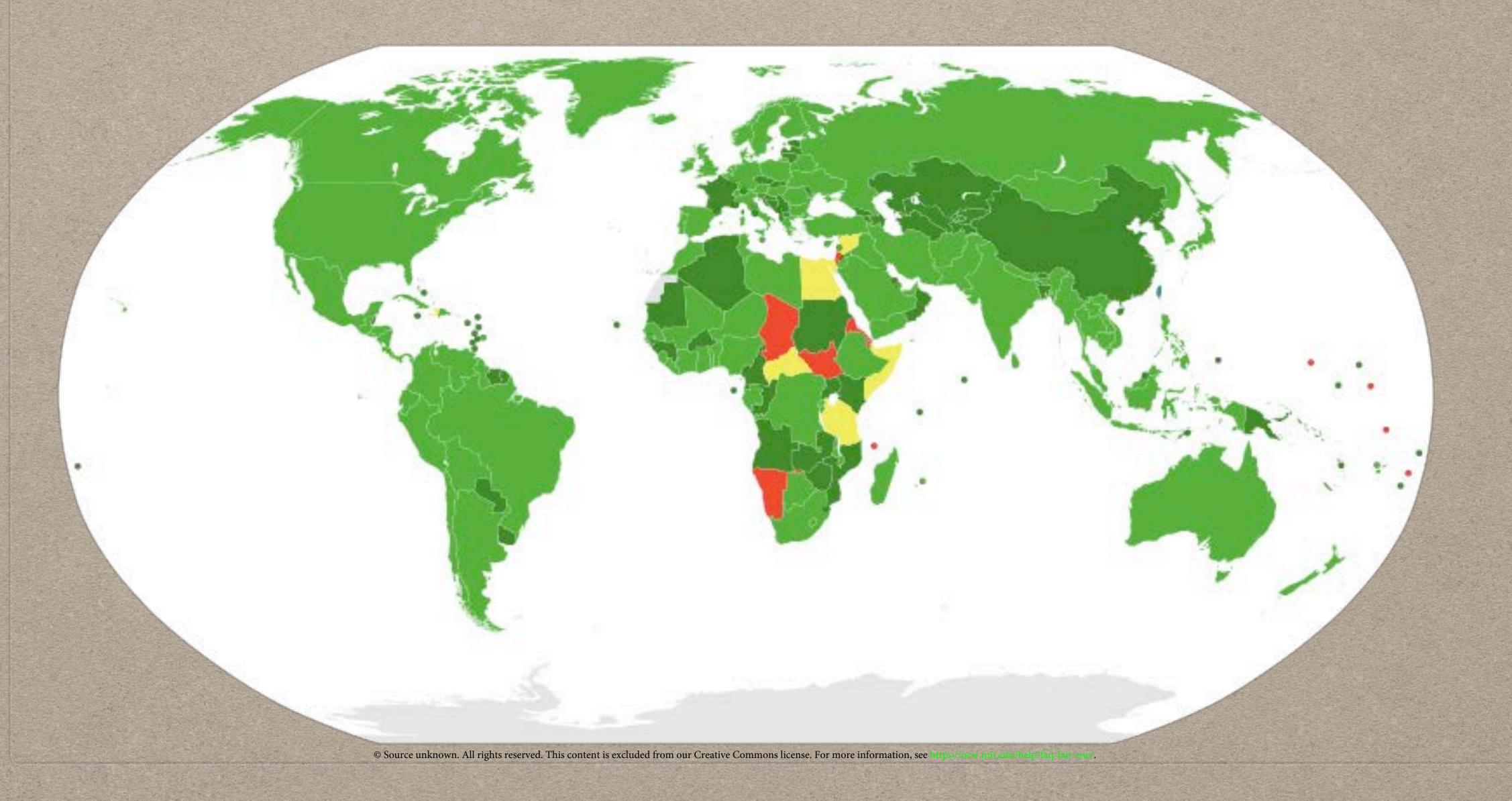
## BIOLOGICAL WEAPONS

- Ancient: flinging bodies of plague victims over walls
- Types
  - Bacterial agents: Anthrax
  - Viral: Smallpox, hemorrhagic fevers
  - Toxins: Ricin, Botulinum

# BIOLOGICAL WEAPONS

- Not area effect: potential to boomerang
- Not legal under Biological Weapons Convention (1972/1975)
- Problem: How to enforce?
  - Soviets signed BWC, then cheated (Biopreparat)

# BWC



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