

# Contracted Logistics Support and Technology During Information Age Transformation

**The Solution!**  
or the  
**National Strategic Trap?**

**Will changing world demographics lead to changed  
interpretations of International Law?**

**Russell E. Bryant**

PEO(IWS) 4A2E

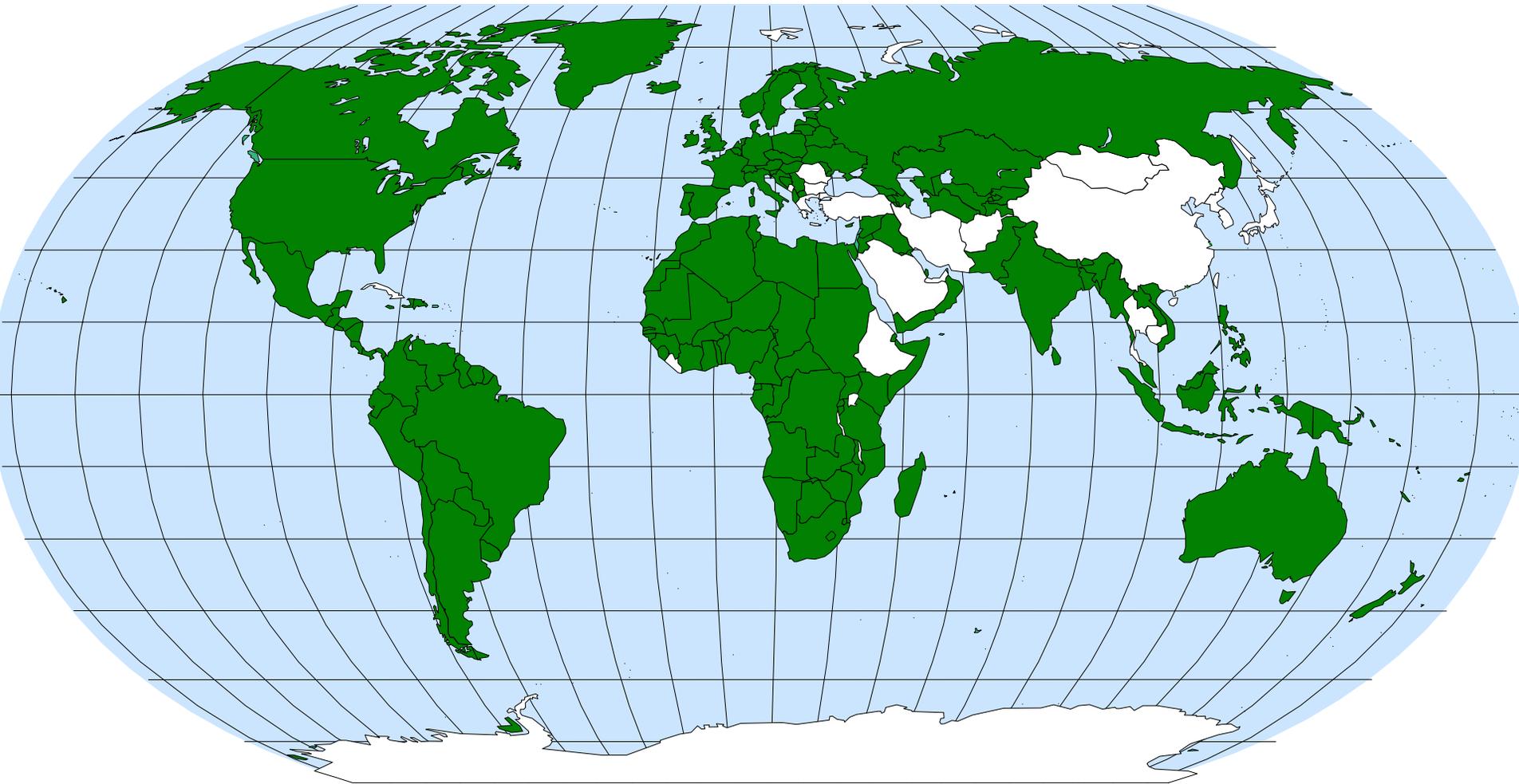
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# Outline

- **World Environment - Transitions - Changes**
- **Logistics - What it is!**
- **International Law**
  - **Some characteristics**
  - **International Criminal Court**
- **Logistics Examples**
  - **Original Equipment Manufacturer & Civilian Support Personnel**
  - **Direct Vendor Delivery**
  - **Public Key Encryption/Infrastructure & Hospital Ships**
  - **Hardware In The Loop**
  - **Total Information Awareness**
- **Opportunities for Mitigation & Conclusion**

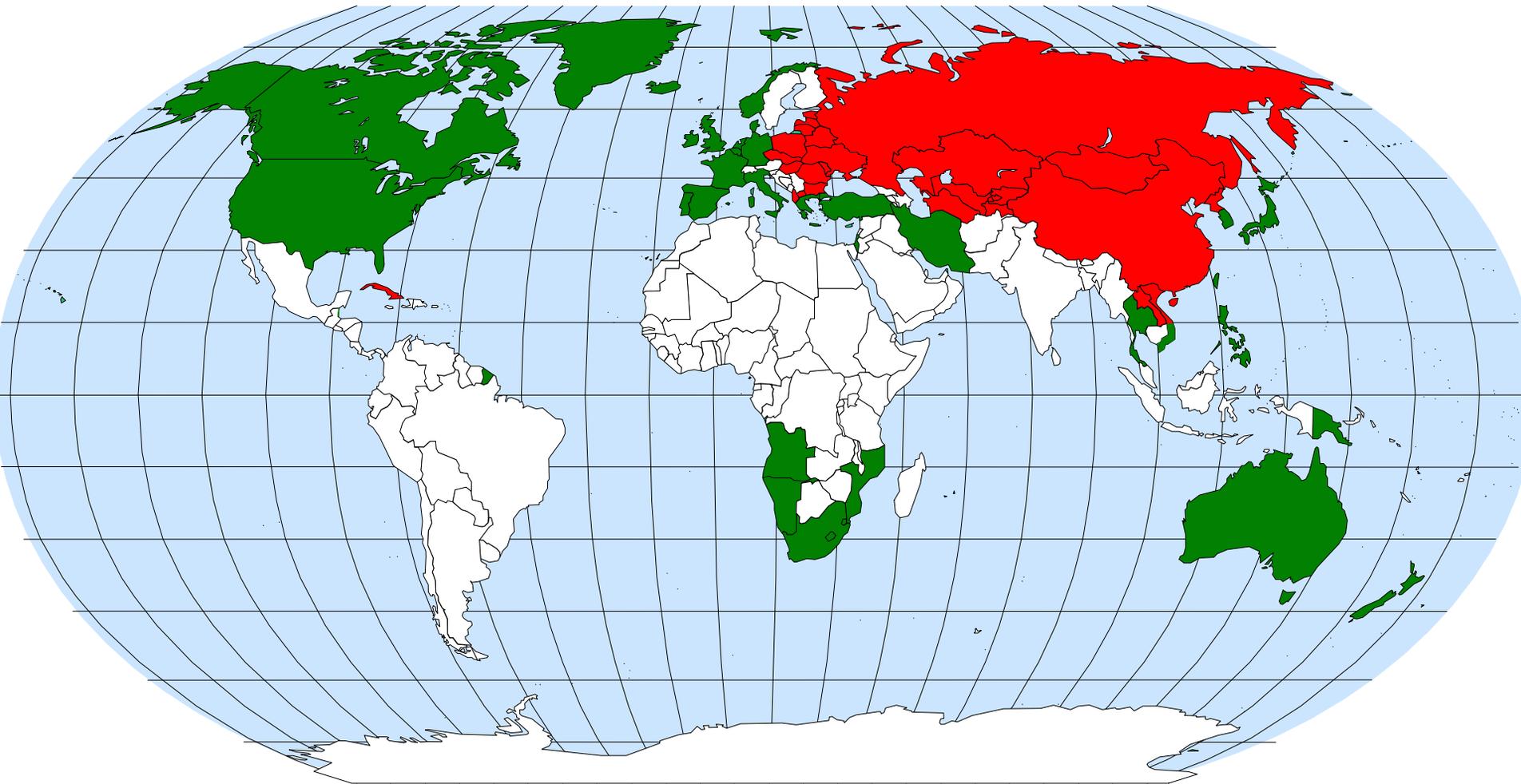
# The West and the Rest: 1920



■ **Ruled by the West**

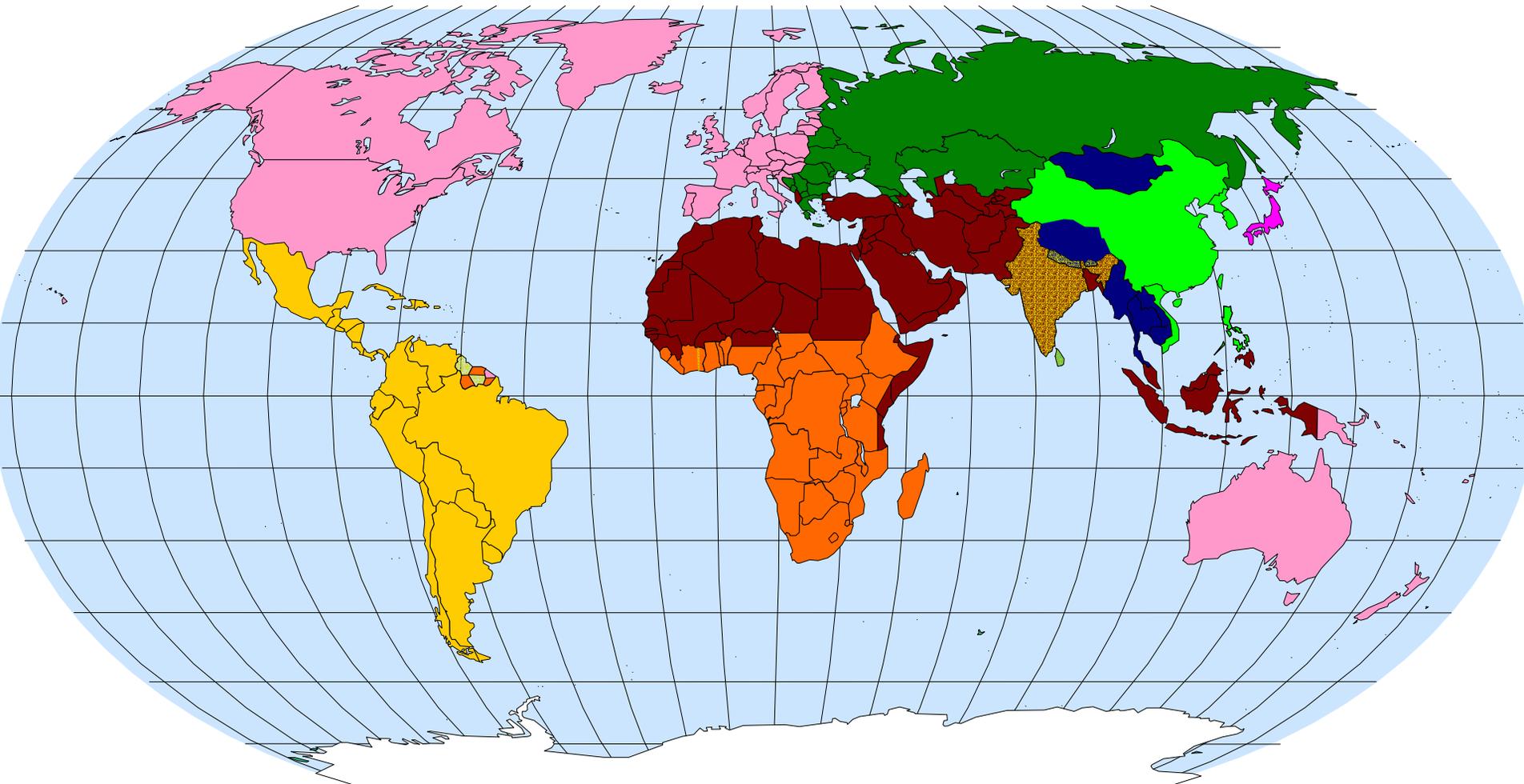
□ **Actually or Nominally Independent of the West**

# The Cold War World: 1960s



■ **Free World**    ■ **Communist Bloc**    □ **Unaligned Nations**

# The World of Civilizations: Post-1990



- |   |  |   |
|---|--|---|
|  <b>Western</b>        |  <b>Islamic</b> |  <b>Orthodox</b> |
|  <b>Latin American</b> |  <b>Sinic</b>   |  <b>Buddhist</b> |
|  <b>African</b>        |  <b>Hindu</b>   |  <b>Japanese</b> |

*Derived from 'The Clash of Civilizations and the Making of World Order, Samuel P. Huntington, Touchstone, 1997, Map 1.3, p. 26-27.*

# Challenging 21st Century Military and Civilian Security Environment



**Terrorism**



**Transnational Actors**



**Military & Civilian**

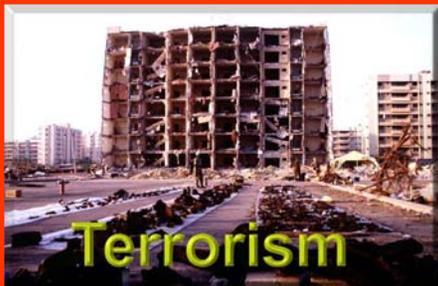


**Non-State Actors**

**Peacekeeping**



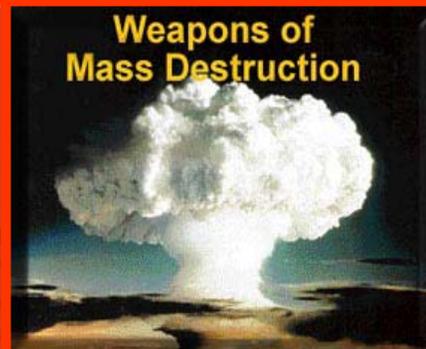
**Terrorism**



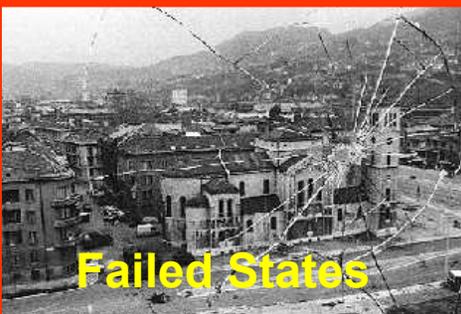
**Weapons Proliferation**



**Weapons of Mass Destruction**



**Failed States**



**Information Security**



# OCEAN ACCESS TO THE WORLD

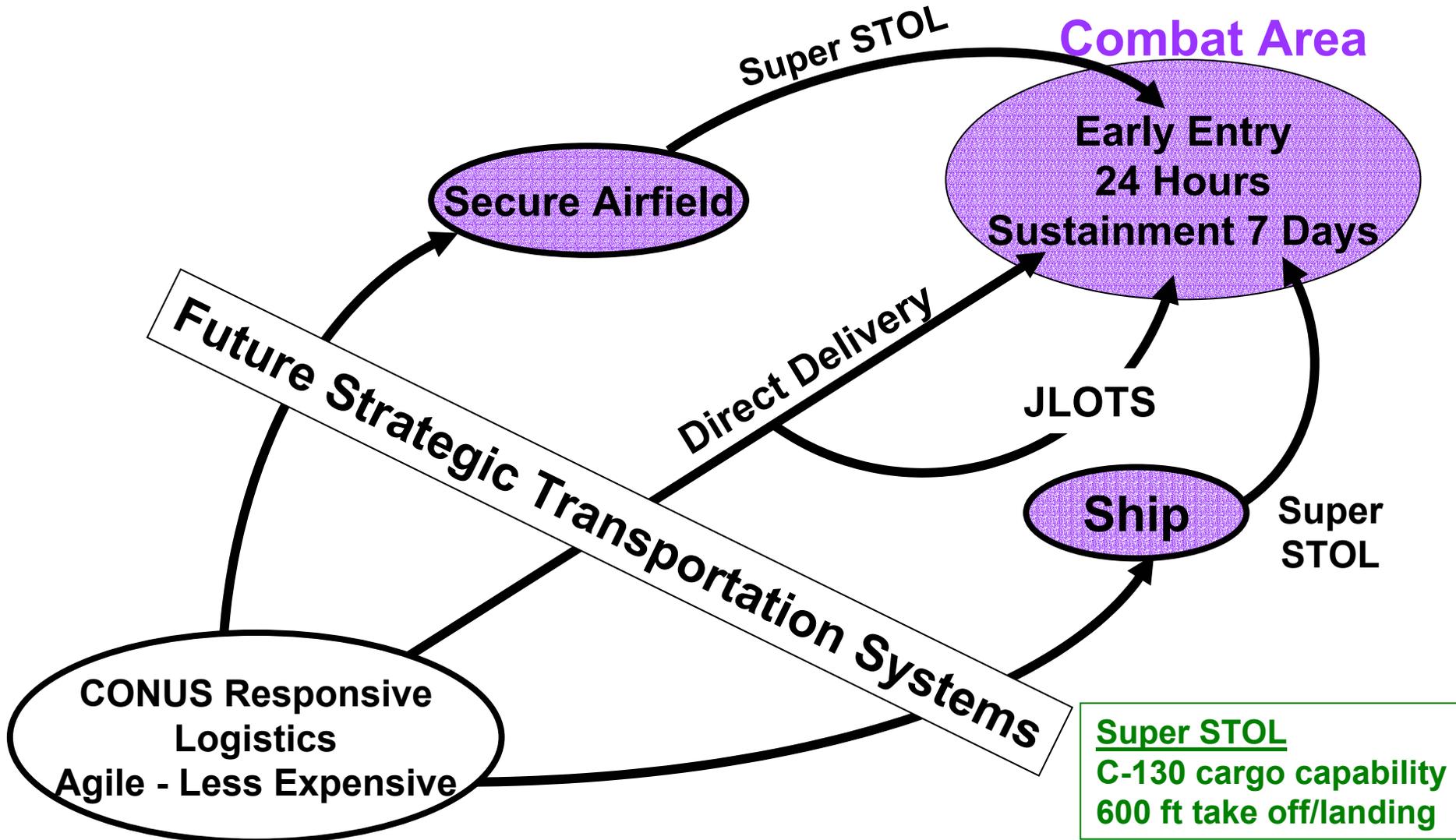
**... The littorals provide homes to over three-quarters of the world's population, locations for over 80 per cent of the world's capital cities, and nearly all of the marketplaces for international trade.**

Krulak, OMFTS

**222 OF 265 COUNTRIES BORDER THE SEA  
80% OF POPULATION AND 80% OF CAPITALS  
ARE WITHIN 500 MILES OF AN OCEAN**

# SUPPORTING THE FUTURE BATTLEFIELD

(Defense Science Board Summer Study 1998)

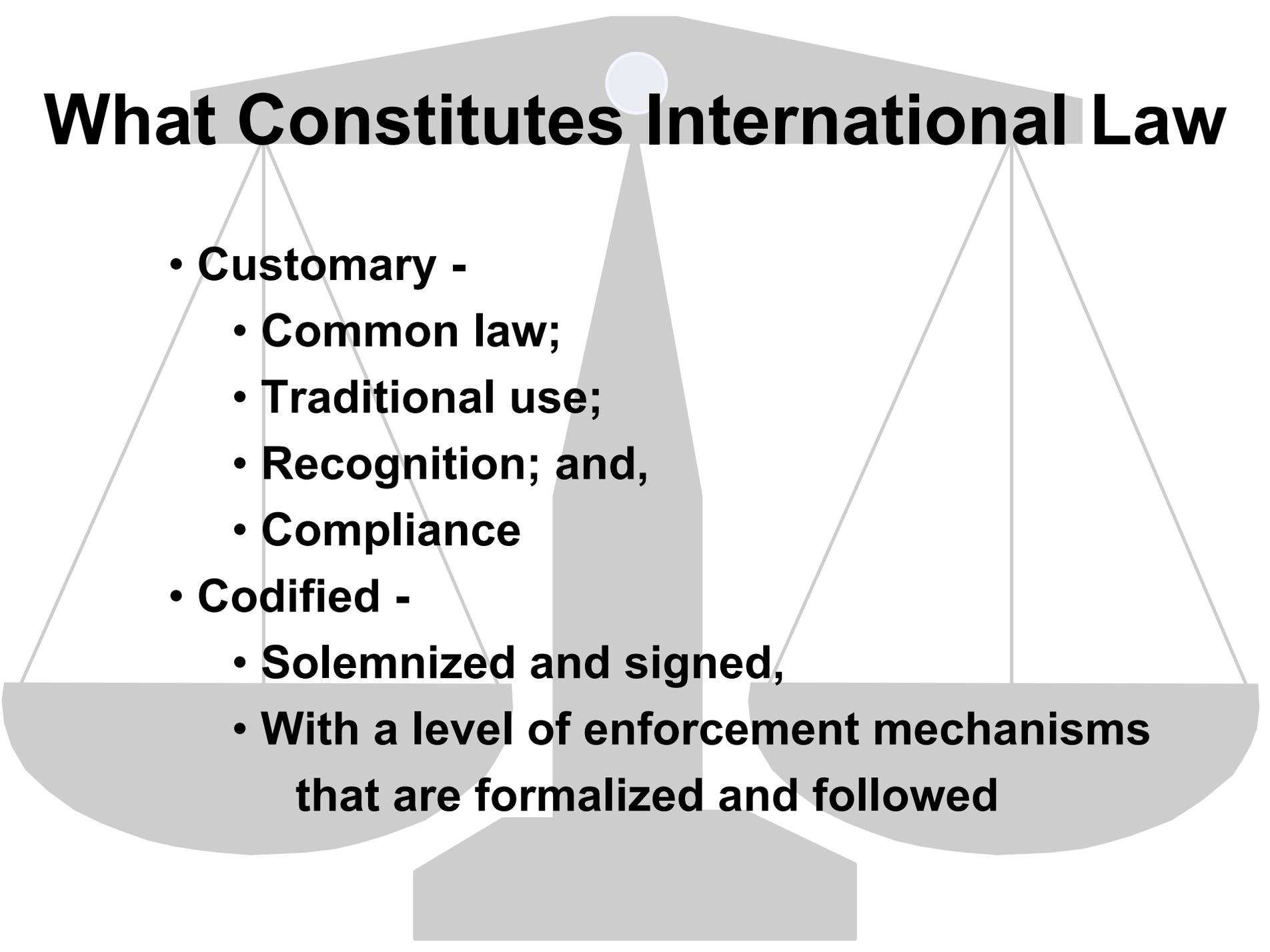


***DOD Logistics Transformation***

# LOGISTICS - DEFINED

The science of planning and carrying out the movement and maintenance of forces. In its most comprehensive sense, those aspects of military operations which deal with:

- a. design and development, acquisition, storage, **movement, distribution, maintenance, evacuation**, and disposition of materiel;
- b. **movement**, evacuation, and **hospitalization** of personnel;
- c. acquisition or construction, maintenance, **operation**, and disposition of facilities; and,
- d. acquisition or **furnishing of services**.



# What Constitutes International Law

- **Customary -**
  - **Common law;**
  - **Traditional use;**
  - **Recognition; and,**
  - **Compliance**
- **Codified -**
  - **Solemnized and signed,**
  - **With a level of enforcement mechanisms that are formalized and followed**

# What Constitutes International Law



- **What constitutes acceptance**
  - **Acquiescence or lack of dissenting opinion, position**
  - **Compliance and enforcement**
  - **Challenges and implementation**
- **Opinion - stature - standing - pride**
  - **Peer pressure**
  - **Willingness to stand up / out in crowd**

# **International Criminal Court**

- **Built on International Response to Balkans**
- **Treaty Established**
  - **United States changed position**
  - **Concern for what constitutes an offense**
  - **Concern for who establishes the positions of leadership and accountability**
- **Points out -**
  - **Challenges and problems of interpretation**
  - **Importance of trying and continuing to work on improved understanding**

# **Original Equipment Manufacturer & Civilian Support Personnel**

## **Geneva Convention precept:**

- **Civilian personnel individuals status**

## **Complicating factors (conditions / circumstances):**

- **Uniform & Contribution**
  - **Quartermaster/Supply Corps**
    - **Combat Service Support - contracted food service**
- **Original Equipment Manufacturer Technicians**
  - **Contracted Equipment Maintenance**

# Making Tracks: Migration in the 1990s

**“Desperate People Can Resort  
To Desperate Solutions.”**

Klaus Toepfer, UN Environment Programme



# Making Tracks: Migration in the 1990s

## Original Equipment Manufacturer & Civilian Support Personnel

- **Population movement is a given**
  - willing, self-imposed, or forced
- **Movement of people includes movement of ideas**
  - Historical successes, failures, and experiments
- **Ideas moving with personnel includes possibility of changing local opinion**
  - Can be viewed as good or bad
- **Changing opinion can change law interpretation**
  - Which direction?



# **Direct Vendor Delivery**

**(Performance Based Logistics)**

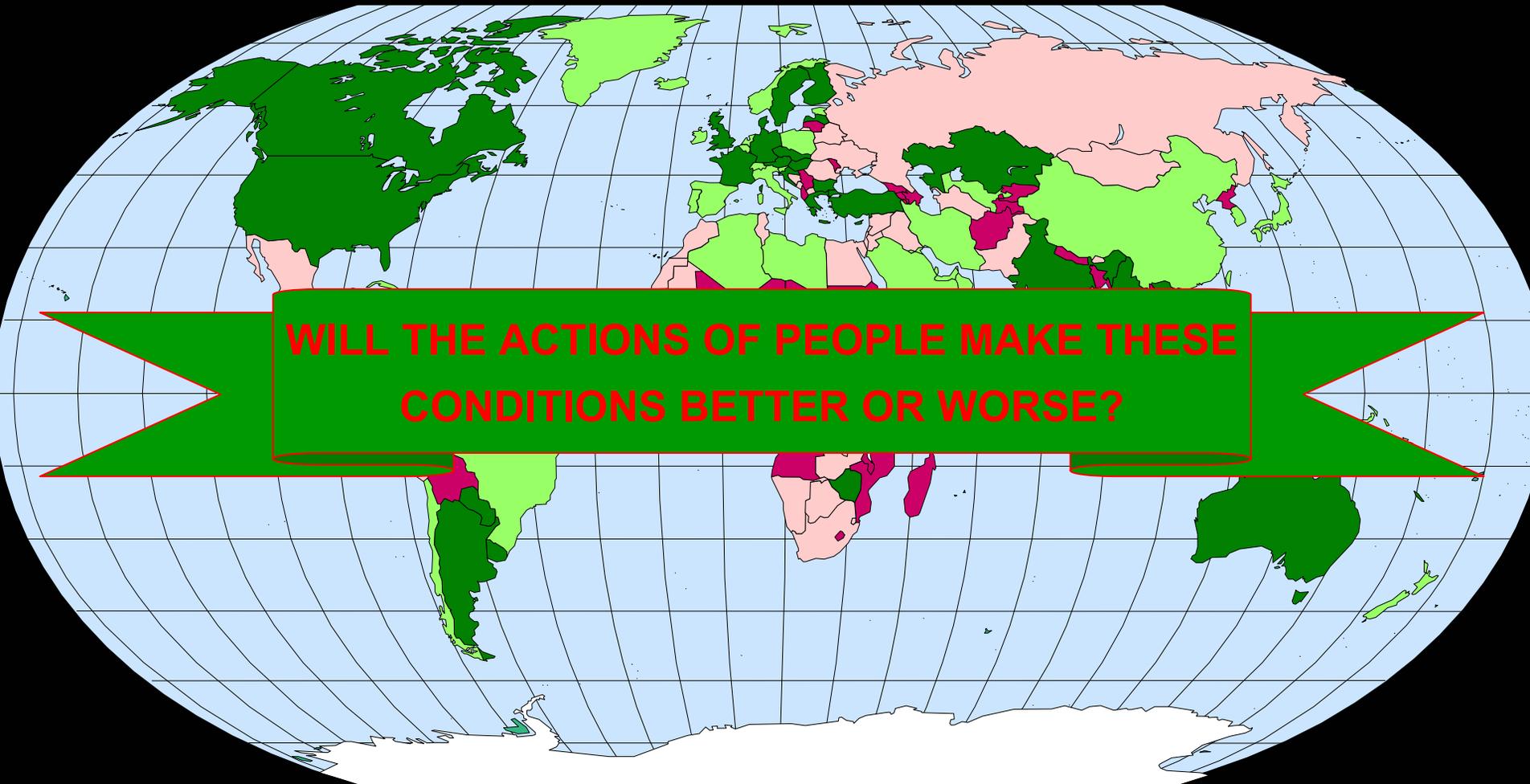
## **Geneva Convention precept:**

- **Contribution to the military effort**

## **Complicating factors (conditions / circumstances):**

- **Uniform & Contribution**
  - **Quartermaster / Supply Corps**
    - **Combat Support / Combat Service Support services - maintenance**
    - **Merchant Marine delivery - historical**
    - **UPS, FedEx, DHL, RPS, etc. stock points and delivery services**

# Global harvest from the good earth



WILL THE ACTIONS OF PEOPLE MAKE THESE  
CONDITIONS BETTER OR WORSE?

 Net exporter

 Net importer (all imports purchased)

 Net importer (1-20 percent imports as aid)

 Net importer (21 percent or more imports as aid)

# Global harvest from the good earth

## Direct Vendor Delivery

(Performance Based Logistics)

- **The Linkage between Food and Population**
  - Struggle for food leads to pressures (national and population)
  - Population displacement or International Relief
    - International pressures
- **Reaction - Positive or Negative**
  - May lead to lashing out at those that are different
  - Or any target of opportunity
- **Potential for World Opinion to Change**
  - Events of 9/11 show that all do not think alike



*Net exporter*



*Net importer (1-20 percent imports as aid)*



*Net importer (all imports purchased)*



*Net importer (21 percent or more imports as aid)*

# Public Key Encryption / Infrastructure & Hospital Ships

## Geneva Convention precept:

- Chapter III, Article 34. [Discontinuance of Protection]

The protection to which hospital ships and sickbays are entitled shall not cease unless they are used to commit, outside their humanitarian duties, acts harmful to the enemy. Protection may, however, cease only after due warning has been given, naming in all appropriate cases a reasonable time limit, and after such warning has remained unheeded.

In particular, **hospital ships may not possess or use secret code for their wireless or other means of communication.**

## Complicating factors (conditions / circumstances):

- Public Key Encryption / Infrastructure with web based Global Combat Support System

# Population Trends

## Health, wealth, and population



**WILL 'DEVELOPING COUNTRIES' POPULATION GROWTH OR THE 'VIRTUOUS CYCLE' PREDOMINATE?**

**MAYBE A COMBINATION?**

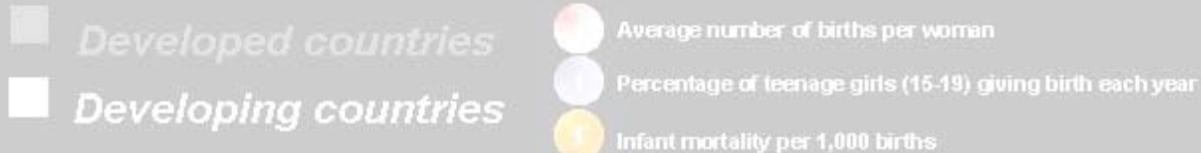
- Developed countries*
- Developing countries*
- Average number of births per woman
- Percentage of teenage girls (15-19) giving birth each year
- Infant mortality per 1,000 births

Country  
1998 population → 2050 population (in millions)

Derived from National Geographic, October 1998

# Health, wealth, and population Public Key Encryption / Infrastructure & Hospital Ships

- **Different Regional population growth rates**
  - Population census mismatch with Opinion Leadership
  - When will a shift happen?, or Is It already shifting?
- **If source of Opinion Leadership changes will International Law interpretation change?**
- **Corking the PKI / PKE Genie???**
  - Supervision Struggle - Government or Private Citizen
  - a la 'Net Force' or 'Power Plays' series from Clancy et al



Country  
1998 population \* 2050 population (in millions)

Derived from National Geographic, October 1999

# Hardware In The Loop

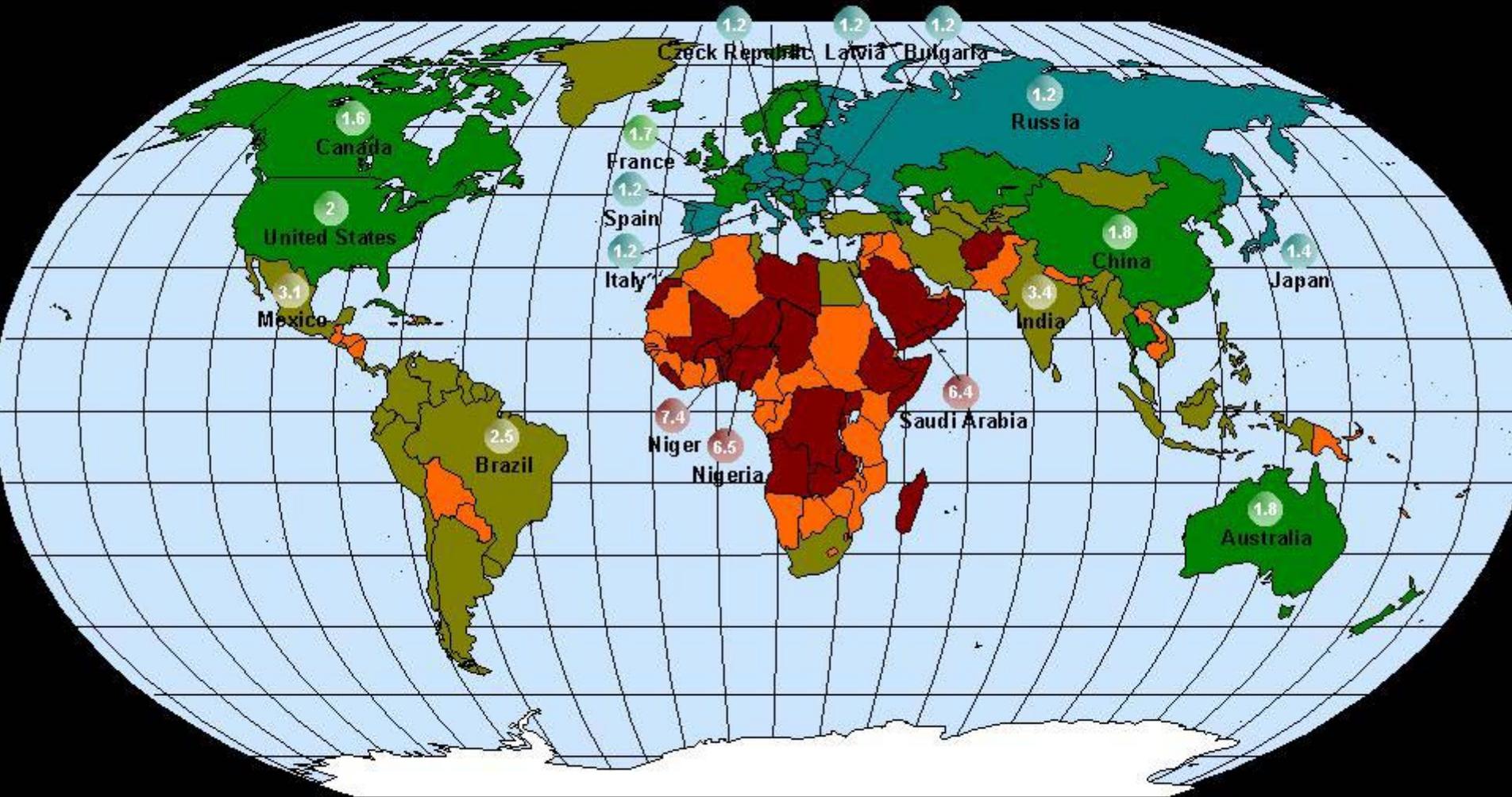
## Geneva Convention precept:

- **Military uniform and insignia not worn, and**
- **Contribution to military effort**

## Complicating factors (conditions / circumstances):

- **Bandwidth for virtual connection & thin client**
- **Civilian individuals, civilian facilities, & contribution**
  - **Manufacturer Facilities**
    - **Computer connectivity**
    - **Constitution of 'in the system'**
  - **Remote analysis and monitoring**
- **Appliances which call the technician for repairs**

# FERTILITY: SMALLER FAMILIES



Fertility (Average births to women during lifetime)

6 and above

4 – 5.9

2.2 – 3.9

1.6 – 2.1

Less than 1.6

# FERTILITY: SMALLER FAMILIES

## Hardware In The Loop

- **Disparity in birthrate and population growth**
- **Feeds marker for world opinion**
- **Potential for direct or indirect change in opinion**
  - **Media reporting**
  - **Movement of people**
  - **Census changes**
- **?Will International Opinion Change?**

Fertility (Average births to women during lifetime)

6 and above

4 – 5.9

2.2 – 3.9

1.6 – 2.1

Less than 1.6

# **Total Information Assurance**

## **(What constitutes Aggression?)**

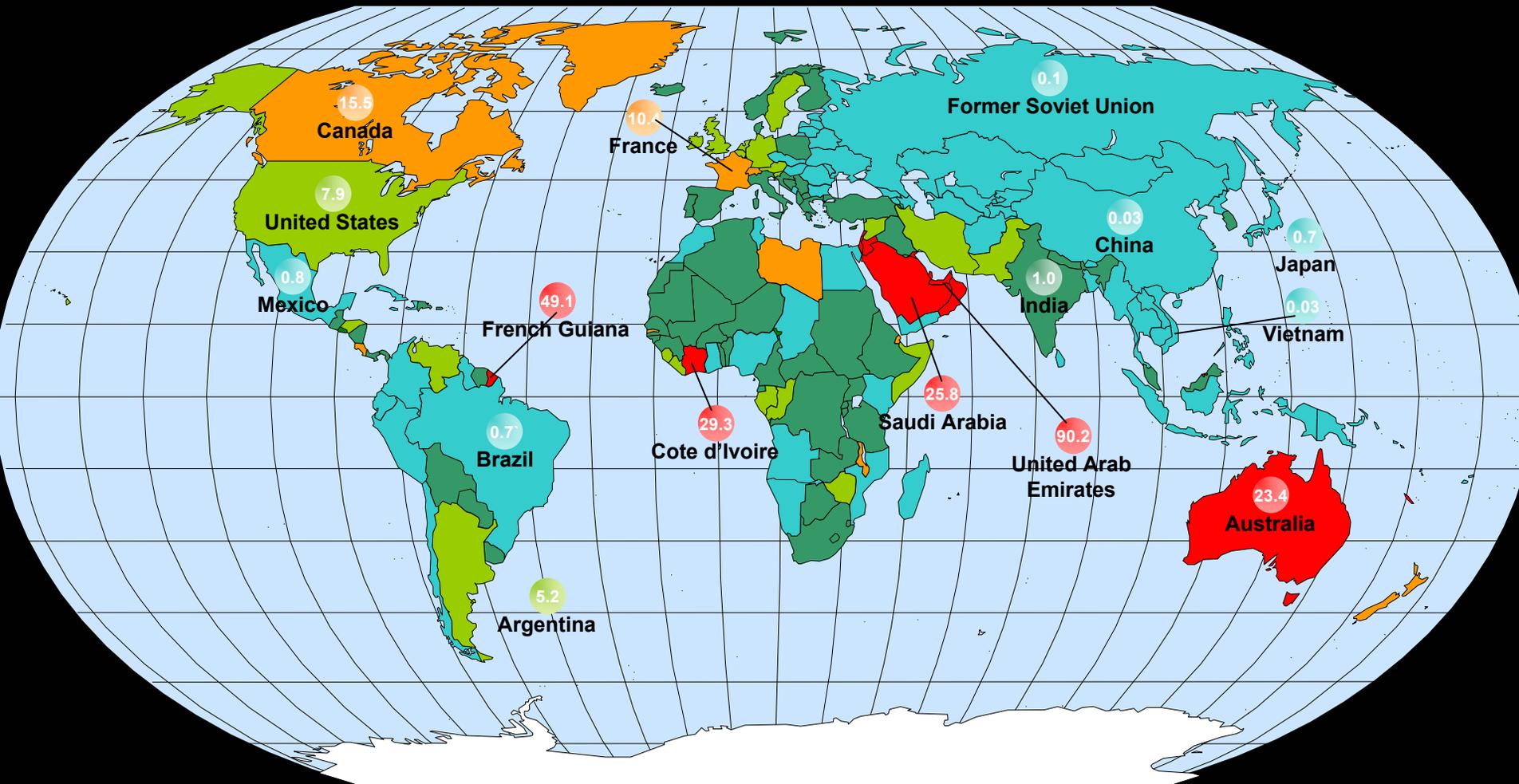
### **Geneva Convention precept:**

- **Aggression, Invasion, and *prima facie* response**

### **Complicating factors (conditions / circumstances):**

- **Ability to search through databases of disparate characteristics regardless of locations & borders:**
  - **Looking for patterns which might not be obvious**
  - **Hoping to find precursor indicators to acts of aggression**
- **Working in Cognitive Hierarchy - ?automation?**
- **'Minority Report' - movie**

# WORLD MIGRATION: DISTANT HOMES



Migrant Population (percent of population)



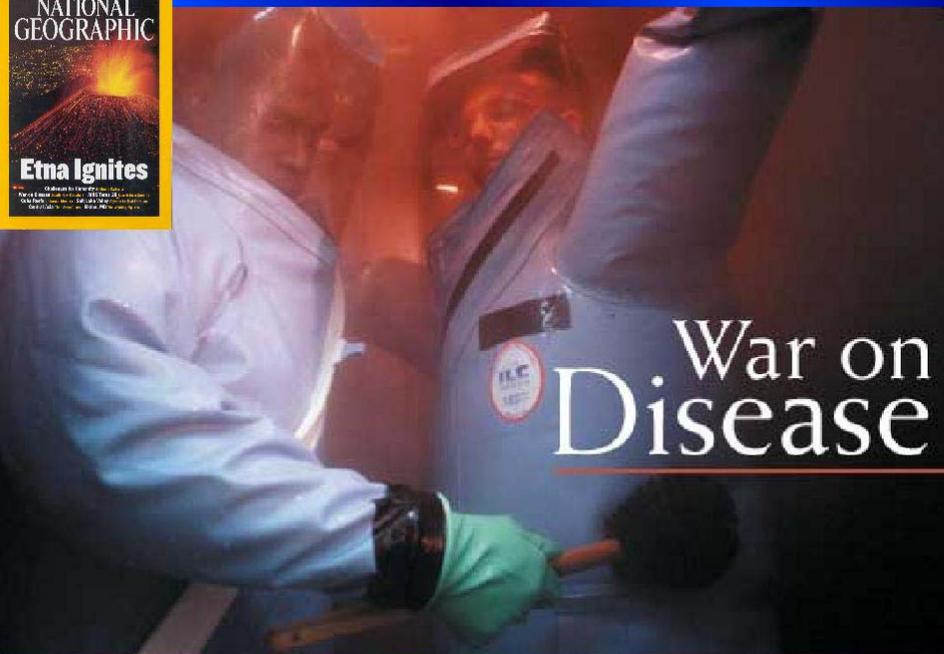
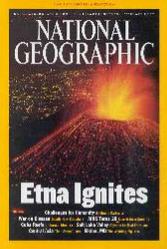
# WORLD MIGRATION: DISTANT HOMES

## Total Information Assurance (What constitutes Aggression?)

- Does touching or 'walking through' a database constitute an act of aggression?
- Russian declared 'strategic response' policy.
- Will other groups, organizations, or a 'super-empowered angry individual' decide to follow suit.
- CCRP work highlighted:
  - limited to non-existent international agreements
- Does there need to be additional International agreements? Who Leads?
- Where does Privacy vs Public Good discussion settle?
- Movement of people moves ideas as well.

Migrant Population (percent of population)

0 - 0.9



# War on Disease



# Food

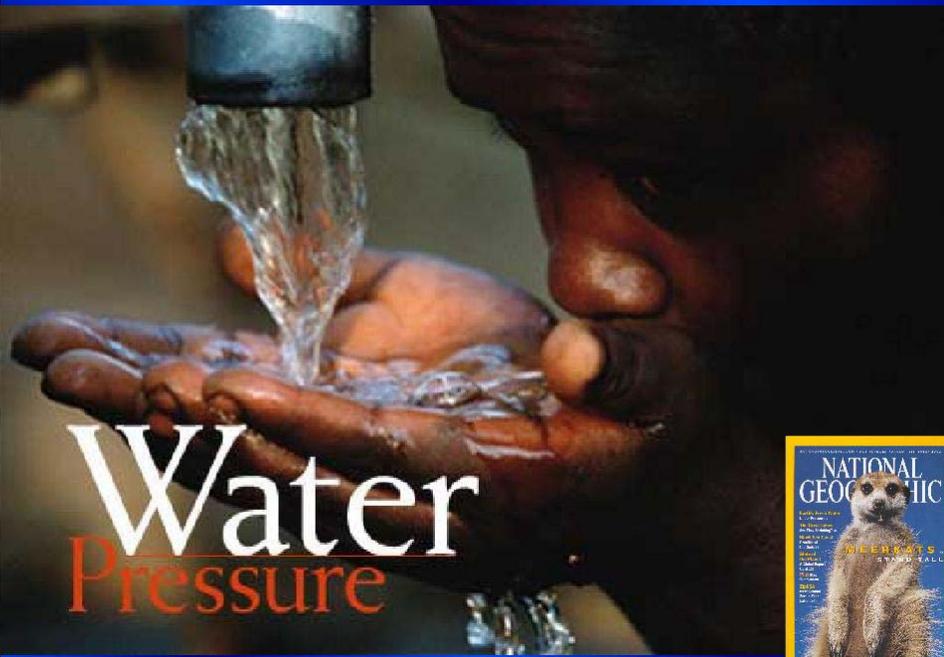
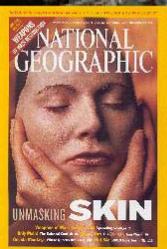
## How Altered?

What might be the benefits and risks of ever accelerating advances in genetic engineering?



# Cities

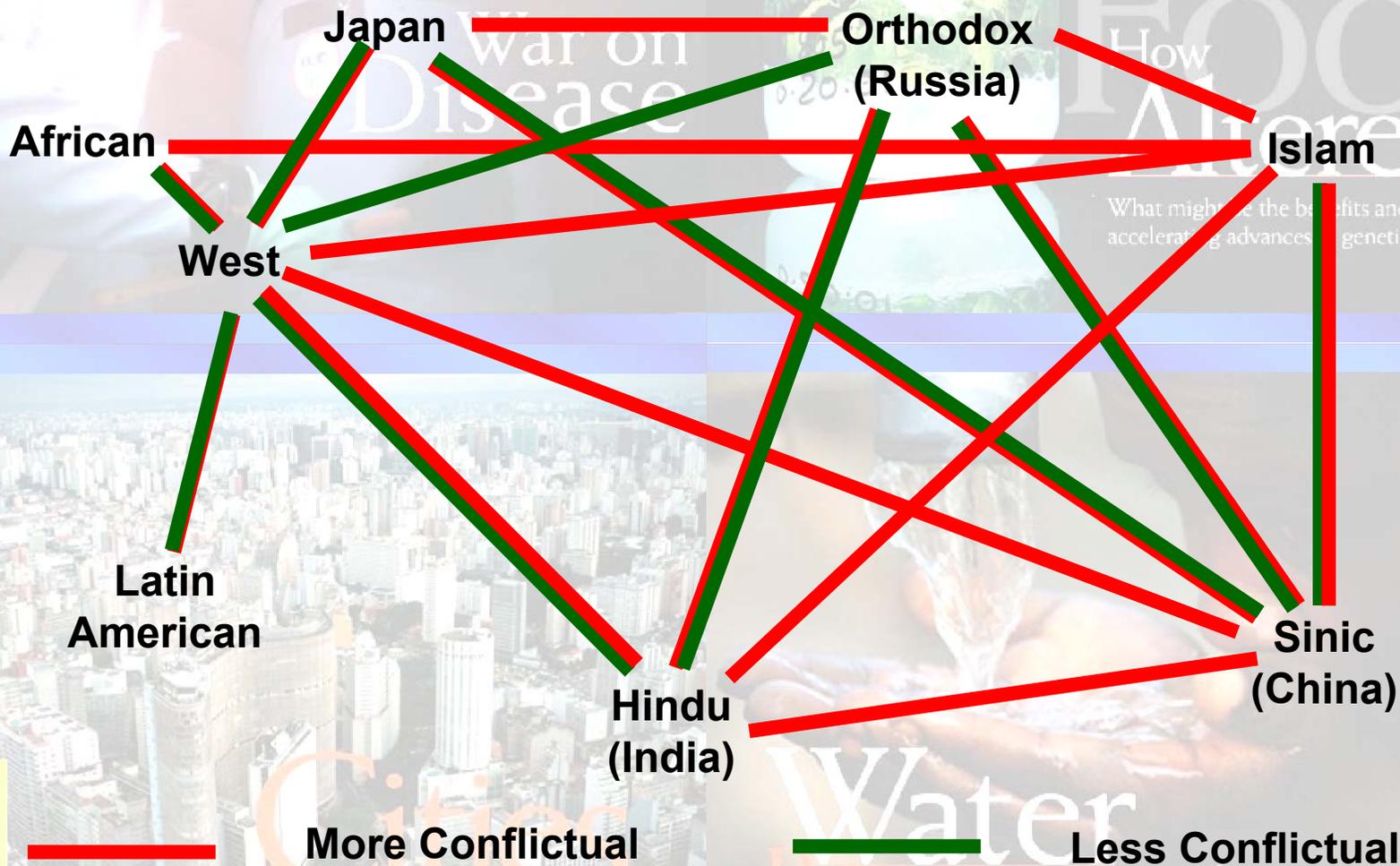
CHALLENGES FOR HUMANITY



# Water

## Pressure

# The Global Politics of Civilizations: Emerging Alignments



# **Opportunities for Mitigation & Conclusion**

- **Shared & Cited Use of Court Opinions - Logic Based**
- **Military and Work Force more representative of world population**
  - **Your Mother's piercing stare**
- **Pew Global Attitudes Project**
  - **What the World Thinks in 2002**
- **Many areas for efforts and initiatives**
  - **Health, food, water, population, and stability**
  - **Another Avenue for Effects Based Operations efforts**