

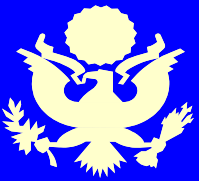
Forward Engagement III

Future Progress, Future Challenge



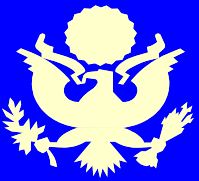
Key Question

What can the United States Government (USG) do **now** to prepare for the future and the impact of changes on American liberal democracy?



Crosscutting Themes

- **A networked world**
- **What is public? What is private?**
- **Power concentrated, power diffused**
- **Freedom versus security**



Areas Analyzed

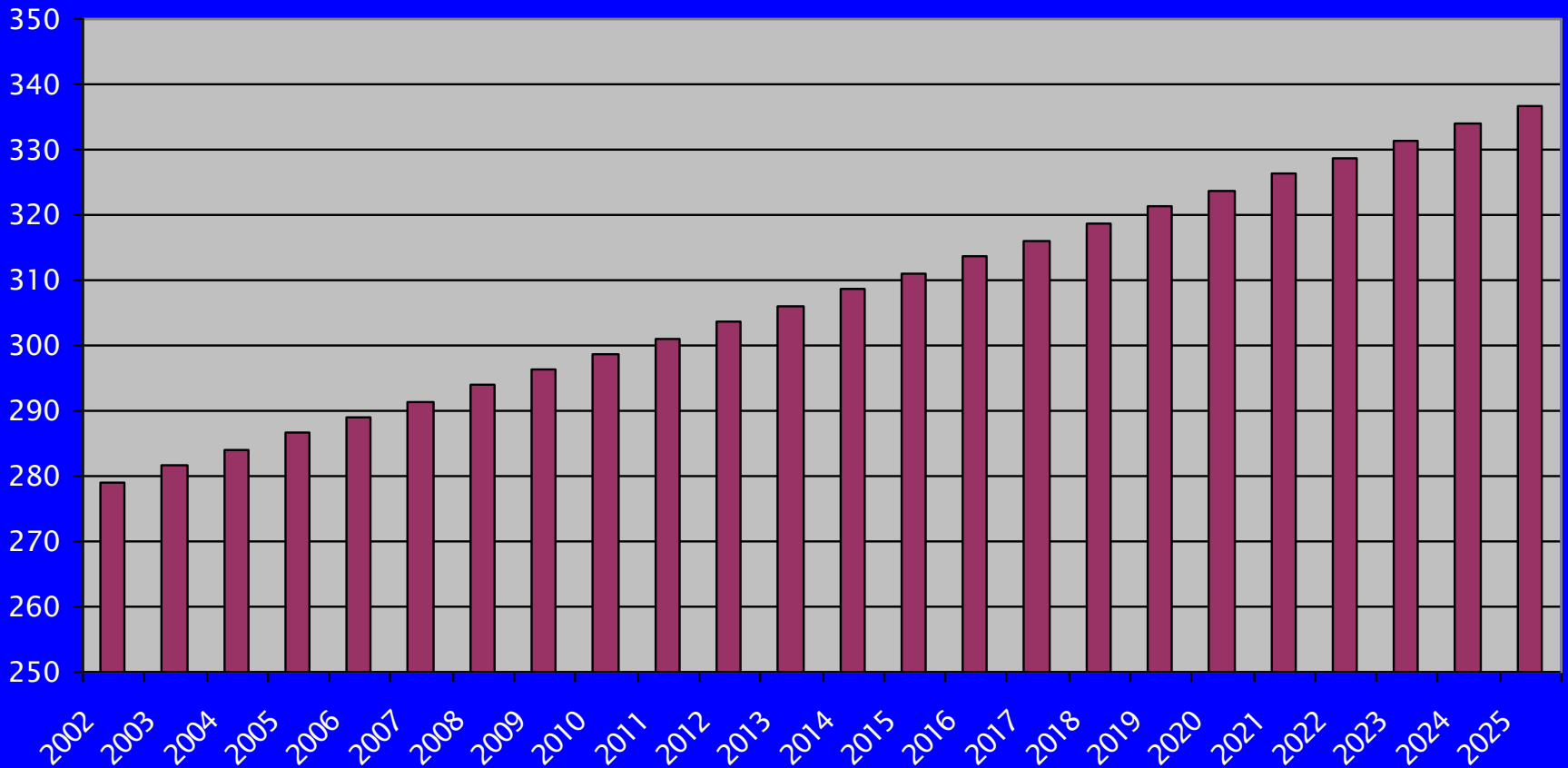
- **State Stability and Governance**
- **Science and Technology**
- **Military and Security**
- **Economics and Finance**



State Stability & Governance

U.S. Population Projections 2002-2025

(Millions of People)

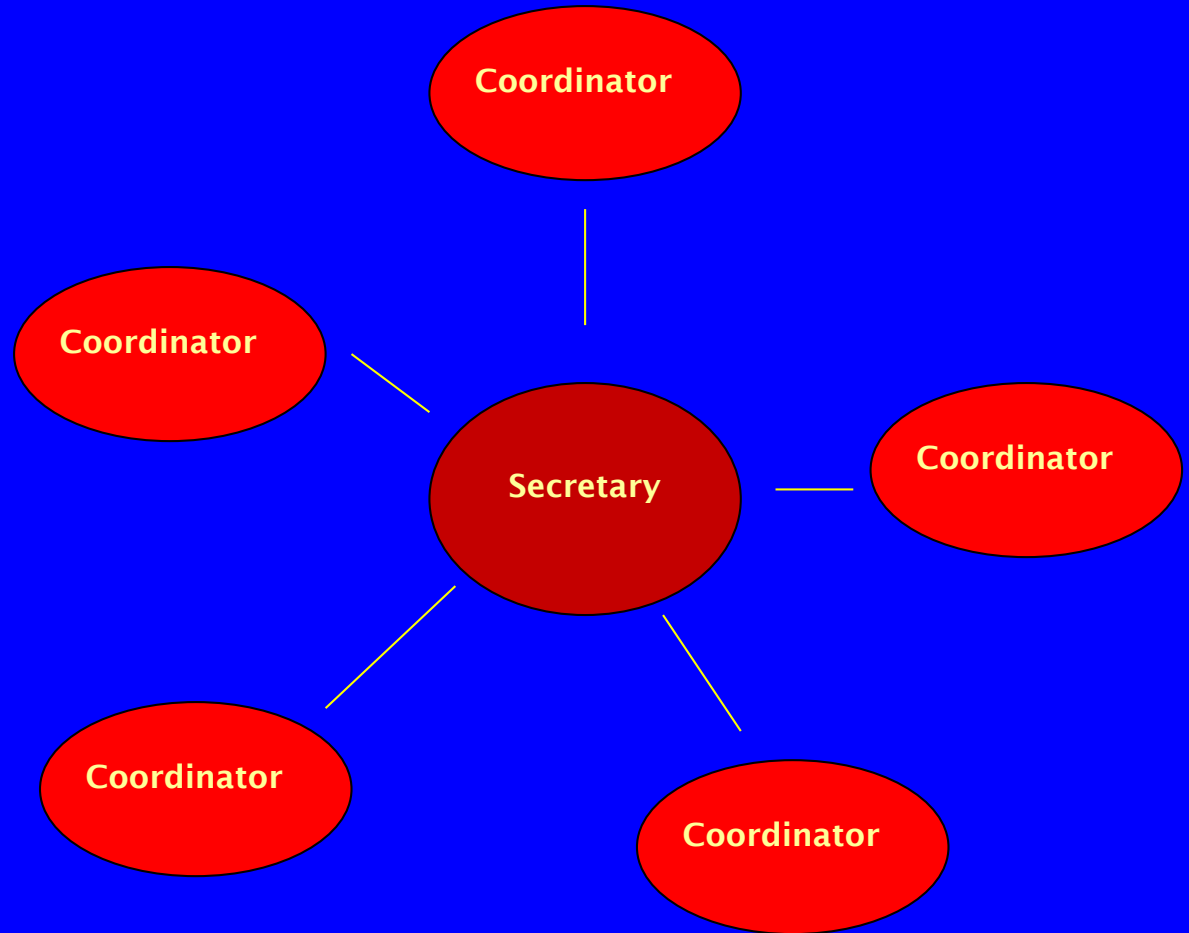
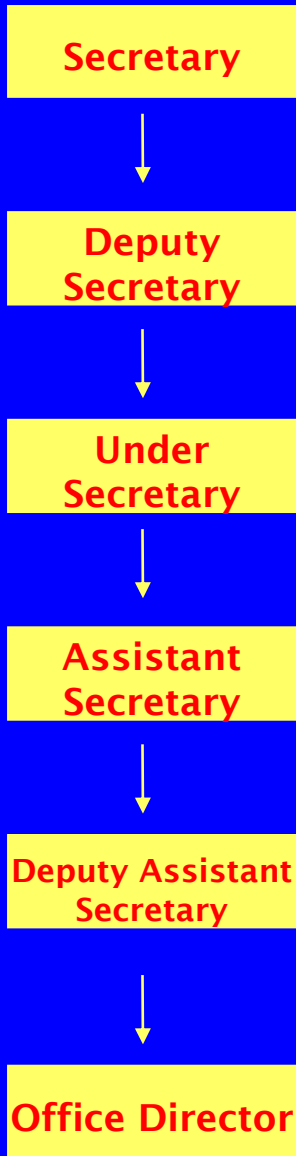




Global Network

- **Nodes in the global network**
 - **States, IGOs, NGOs**
 - **Organized crime, terrorist groups**
- **Challenges**
 - **Loss of state legitimacy/power**
 - **State disintegration**
 - **Global inequity/anti-globalization movement**
- **Essential elements**
 - **Worldwide strategic networking**
 - **Domestic networking**

Organization of USG

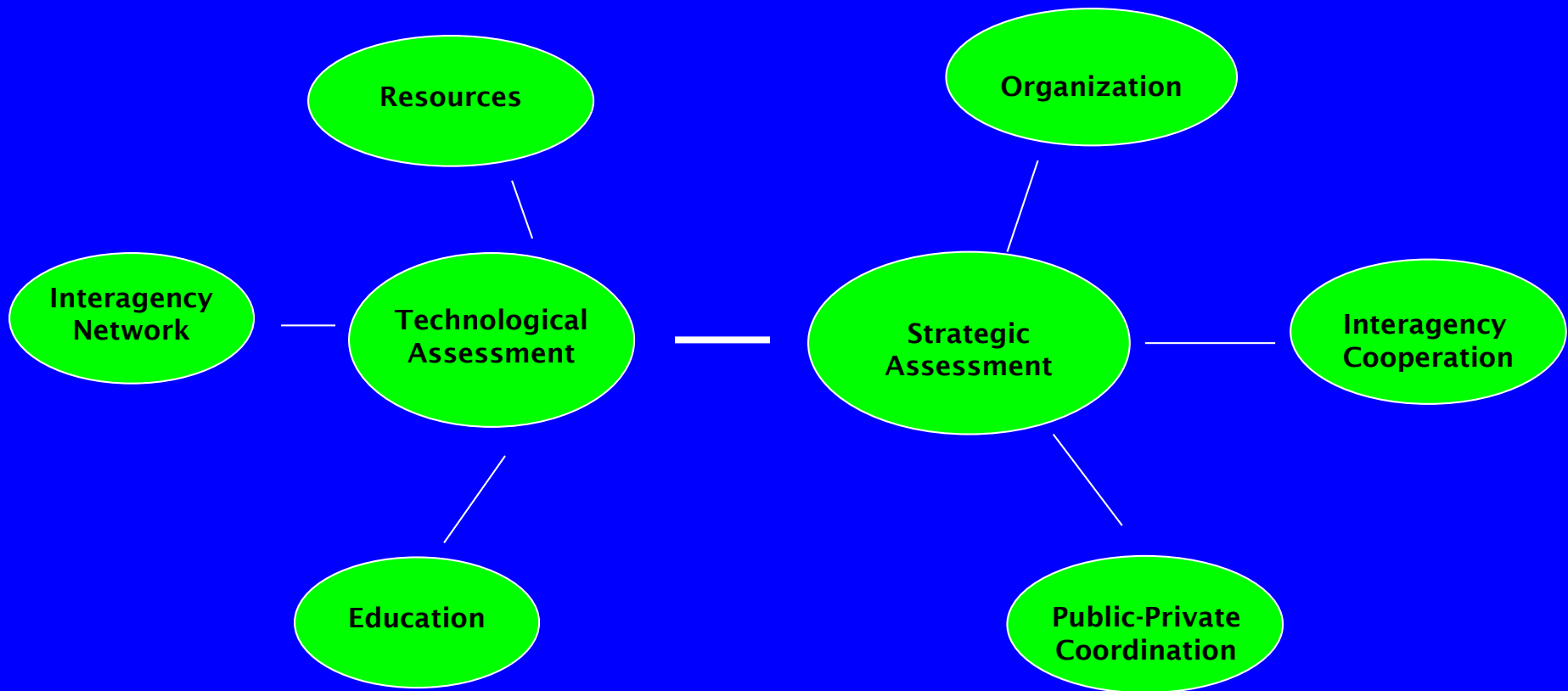




SSG Recommendations

- **Allocate additional information technology resources**
- **Increase development aid through IGOs & NGOs**
- **Encourage greater transparency/accountability with IGOs & NGOs**
- **Create Office of Technological and Strategic Assessment (OTSA) - under executive branch with liaison to Congress**

Office of Technological & Strategic Assessment (OTSA)





Science & Technology



Age of Rapid Change

- **Cloning**

- **Stem cell research**

- **GM foods**

Technologies on the brink:

- **Advanced robotics**
- **Quantum computing**
- **Artificial intelligence**
- **Advanced lifespan**
- **AIDS vaccine, gene therapy**
- **Human-computer interface**
- **Space colonization**
- **Genetically enhanced humans**
- **Proliferation of biometrics**
- **Nanotechnology applications**
- **Ubiquitous renewable energy use**
- **Extensive use of virtual reality**



Engaging the Future

- Institutionalized through relevant sectors of the OTSA

- Integration and cooperation of bodies conducting scientific R&D:
 - Government offices
 - NGOs
 - Private sector corporations



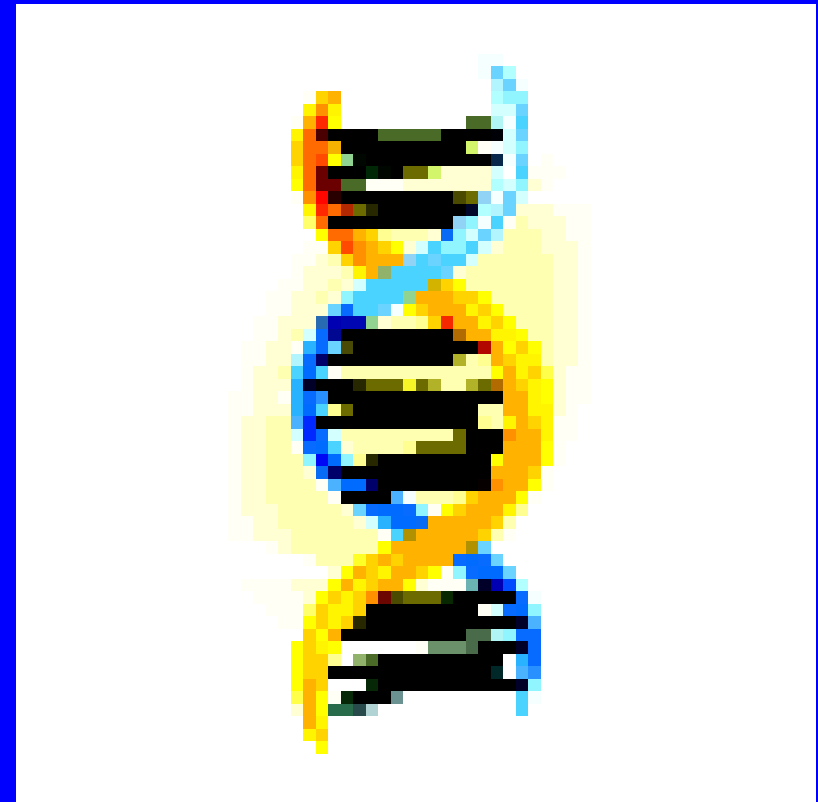
Science & Technology Recommendations

- **Anticipation: promote public discussion and debate**
- **Preparation: link R&D and implementation of new technologies**
- **Integration: advise executive and legislative branches through OTSA**



Engine of Change

- Science and technology will drive changes in all aspects of life
- Change is upon us
- Anticipation
Preparation
Integration





Military & Security



Geopolitical Threats

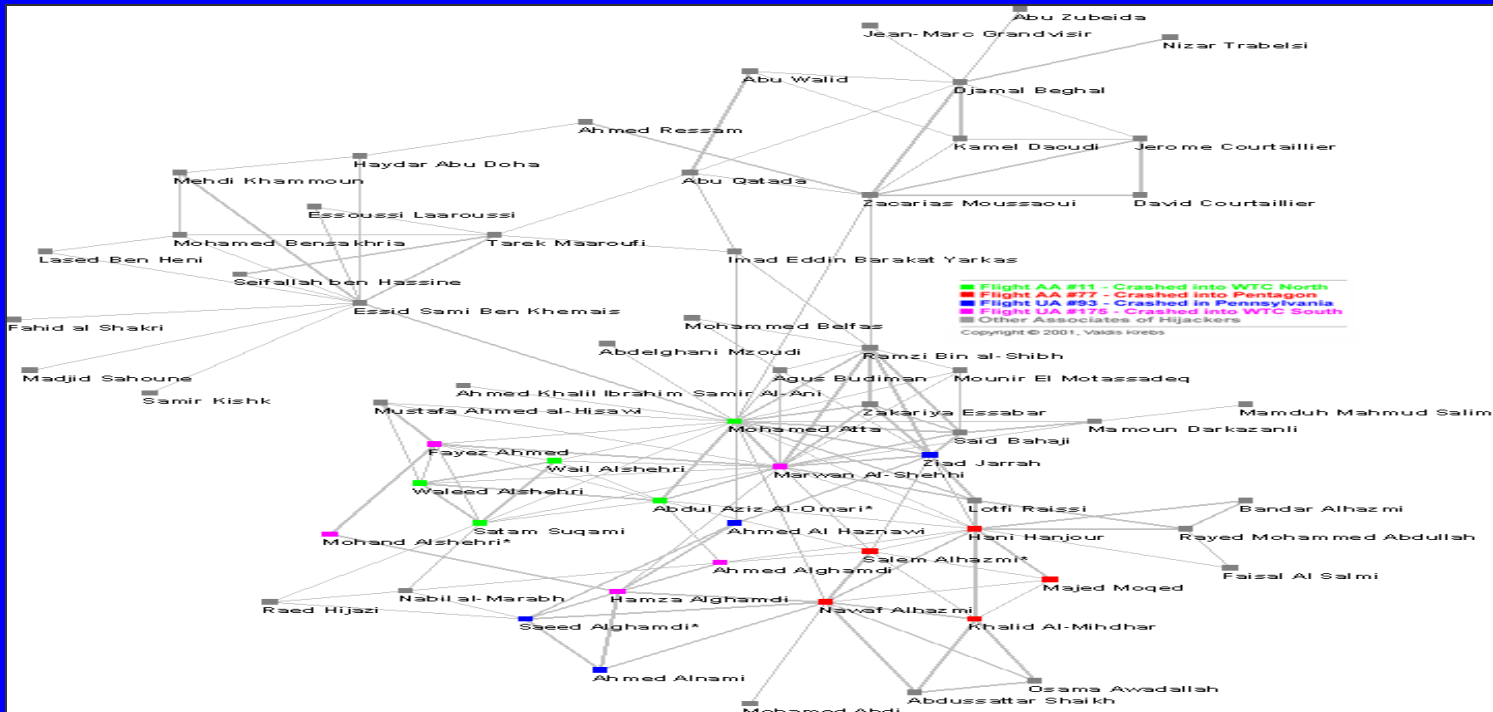
- **Balanced approach**
- **State threats**
 - **Asia (China, North Korea)**
 - **Near East (Iran, Iraq)**
 - **Russia**
- **Importance of forward deployment**





Militant Non-State Actors

- Increase in terrorism
- Rise of criminal networks





Increased Responsibilities & Alternative Threats

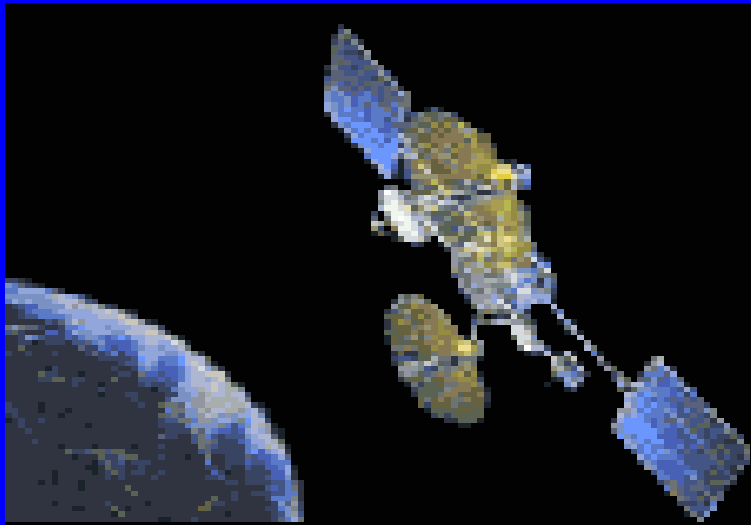
- **Homeland defense**
- **Civil war and regional conflict**
- **Humanitarian/peacekeeping missions**





New Technologies

- Nanotechnology
- Space—the next frontier?
- New earth-based weapons
- Ethical implications





Military & Security Recommendations

- **Reorganize the army into smaller Special Forces units**
- **Build international multilateral crime fighting networks to combat militant non-state actors**
- **Reallocate military research funds to intelligence, Special Forces, covert actions, system maintenance, and peacekeeping**
- **Appoint a commission to study the need for a service branch dedicated to space**



Economics & Finance



Economics & Technology

▪ Information technologies

- Dynamic growth and speed in new systems
- Decreasing equipment costs and increasing demand
 - Asymmetrical threats increase with better technology
 - Digital “Pearl Harbor”

▪ Bio- and nanotechnologies

- Significant increase in overall quality of life
 - Economic strain on social system
 - Abuse of technologies
 - More terrorism by “have nots”



Development & Environment

- **Aging crisis and youth bulge**
 - Labor force contraction in developed economies
 - Youth bulge in largely underdeveloped economies

- **Water**
 - 1/2 of world population will live in "water-stressed" countries
 - Large increase in agricultural water consumption

- **Forests**
 - 60% of world's population growth will occur in countries with remaining tropical forests
 - Soil erosion
 - Climate change



Capital & Financial Markets

- **Financial transactions conducted in “real time”**
- **Higher integration = higher contagion susceptibility**
- **USG will have two constituencies: financial markets and citizens**



Economics & Finance Recommendations

- **Enhance risk management**
- **Increase cooperation within established institutions/systems**
- **Increase trade, investment, and foreign aid to developing countries**
- **Create a USG council to address the concerns of both private business and citizens**



What can the United States Government (USG) do **now** to prepare for the future and the impact of changes on American liberal democracy?

- **OTSA: predictive and proactive**
- **Facilitate, not regulate, scientific innovation and economic growth**



We the People of the United States, in Order to form a more perfect Union, establish Justice, insure domestic Tranquillity, provide for the common Defence, promote the general Welfare, and secure the Blessings of Liberty to ourselves and our Posterity, do ordain and establish this Constitution for the United States of America.

Article I.

Section 1. All legislative Powers herein granted shall be vested in a Congress of the United States, which shall consist of a Senate and House of Representatives.

Section 2. The electors in each State shall have equal Weight in the election of Electors, and the Electors in each State shall have the Qualifications requisite for Electors of the most numerous Branch of the State Legislature.

No Person shall be a Representative who shall not have attained to the Age of twenty five Years, and seven Years of Citizenship of the United States, and who shall not, when elected, be seven Years an Inhabitant of the State in which he shall be chosen.

Representatives and direct Taxes shall be apportioned among the several States which may be included within this Union, according to their respective Numbers, which shall be determined by adding to the whole Number of free Persons, including those bound to Service for the Space of one Year, including Indians not taxed, three fifths of all other Persons. The actual Enumeration shall be made within three Years after the first Meeting of the Congress of the United States, and within every subsequent Term of seven Years, in such Manner as they shall direct. The Number of Representatives shall not exceed one for every thirty Thousand, but each State shall have at least one Representative, and the Electors in each State shall have at least one Representative. No State shall have a greater Number of Representatives than it has Representatives to which it is entitled in proportion to the whole Number. No State shall have a less Number of Representatives than the Number which it is entitled to in proportion to the whole Number. The Electors in each State shall have the Qualifications requisite for Electors of the most numerous Branch of the State Legislature.

The House of Representatives shall be composed of Members chosen every second Year by the People of the several States, and the Electors in each State shall have one Vote.

Quorum for the Purpose of any of the Powers of Congress, shall be a Majority of the Members present. Two thirds of the Members present shall constitute a Majority for the Purpose of any of the Powers of Congress, and two thirds of the Members present shall constitute a Majority for the Purpose of any of the Powers of Congress.

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