

Impact of Climate Change on the Nuclear Nonproliferation Regime

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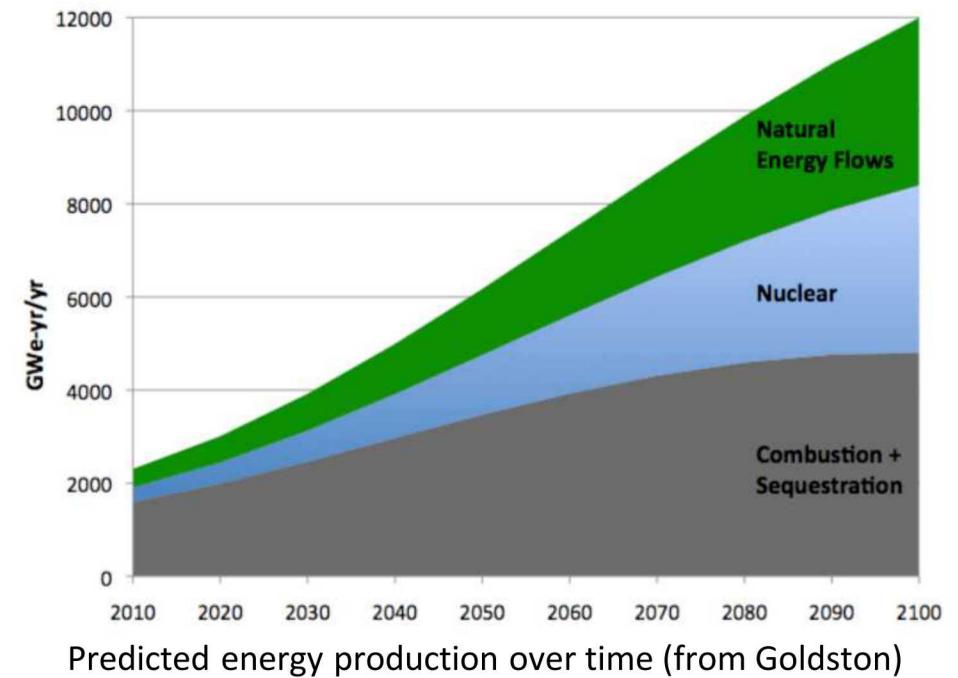
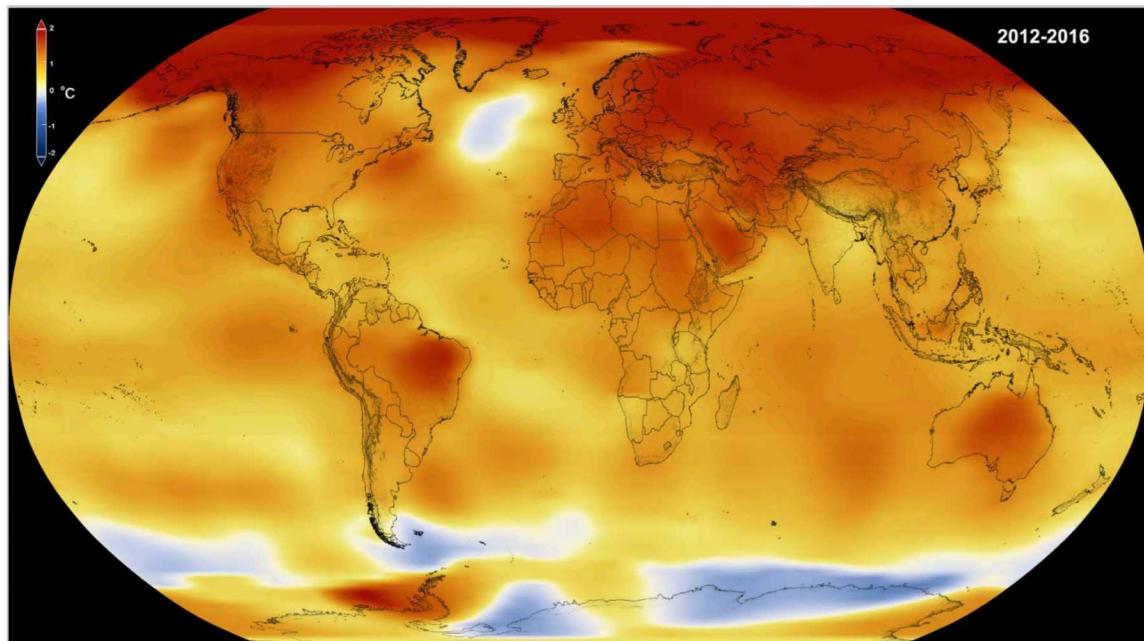
UNM WMD NP Course Political Science 400-001

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The Issue

- Energy demands continue to rise
- Global climate change drives growing interest in alternative (non fossil) fuels
- **Nuclear Energy (up to 30% by 2100)**



The Issue

- Nuclear power generation will need to increase
 - More nuclear fuel
 - More nuclear reactors
- The IAEA is already resource constrained
- Significant proliferation risk
 - Covert facilities
 - Declared facility diversion
 - Breakout from obligations

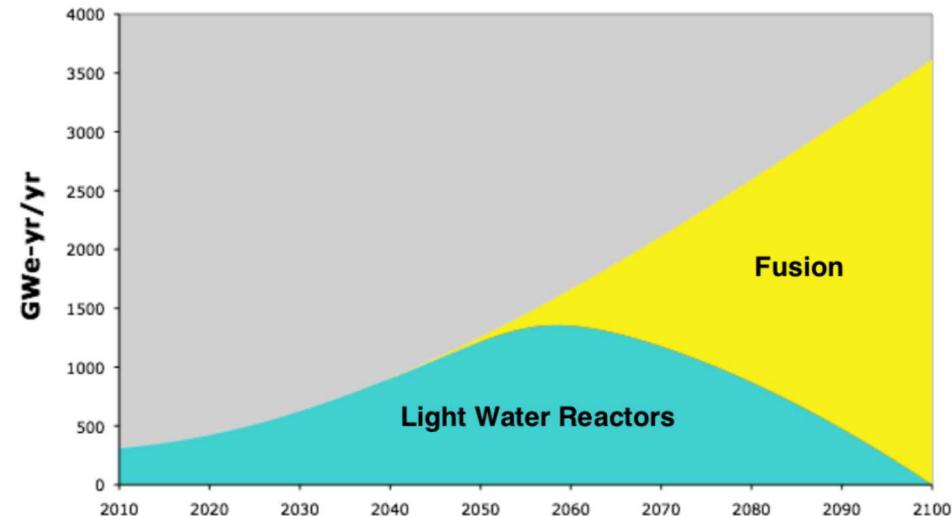
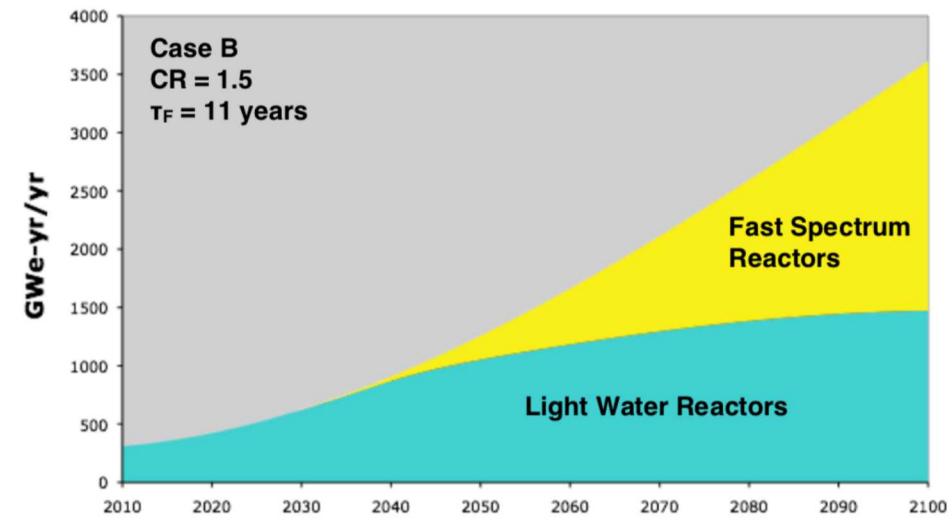


From Findlay [6]

Future global energy strategy must enable alternative energy but prevent unintended nuclear proliferation consequences

Tools & Limitations

- Technology tools: alternative reactor technologies
 - Limitation: requires substantial R&D investment
- Policy tools: strengthen monitoring and verification
 - Limitation: requires international coordination and engagement



What should be done?

- Connect the goals of the nuclear nonproliferation regime to the goals of global climate change prevention and mitigation.
- Must be treated as dependent and of equal impact an importance.
- State participation in both ensures stability
- Must address Sagan's three models of proliferation motivation



“Without sufficient understanding of how climate, nuclear, and security issues interrelate ... the U.S. government and global actors may make advances in one area that inadvertently undercut their objectives in another”

- Working Group on Climate, Nuclear, and Security Affairs

Opposing views

- International agreements are flawed: time consuming, states can withdraw, verification and monitoring is challenging, etc.
 - But, dramatic world events can motivate swift international action
- Climate change is unavoidable (tipping point in 40 years)
 - But, 40 years is still substantial time for action
- Security issues are more important (polar arctic ice melting)
 - But, the abundance of nuclear fuel is a high consequence, low prediction risk

Summary

- Global climate change and nuclear proliferation are inextricably linked
- International policies that
 - increase material and technology accountancy
 - enable states to mitigate domestic climate change impactsare fundamental to ensuring future energy demands can be met while minimizing nuclear proliferation risks.
- Implementation requires a global sense of urgency and international coordination.
- Challenges could include: states with economies dependent on fossil fuel sales

References

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