

# Environmental Security, Global Climate Change and the Role of Private Security

- Holistic View of “Security” – Builders and Destroyers
- Challenging Question: **What is “Environmental Security”** and Why Is This Important for Us to Understand?
- Advancing Environmental Security: **Methodology Proposal...**
- Defining Global Warming/Climate Change/Global Climate Change
- Paris Climate Agreement of April 22, 2016
- We Need Science! One Noteworthy Initiative
- **A markedly Successful Collaboration!**
- Private Security Industry: Markets and Sectors
- Private Security Engaging in Environmental Security Case Study I
- Private Security Engaging in Environmental Security Case Study II
- Wrap Up: Role of Private Security in Environmental Security

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# Holistic Security -- Builders

Football, Soccer!  
Snorkeling/diving  
in warm blue water!

Freedom and Self - Determination - "Live Free or Die"

Health, Education, Human Services

Feeling secure and safe...

Spirituality and Ritual

**FOOD , WATER , SHELTER...**

Pets Friends The Zoo

**Social Relationships**

Flamenco Dancing ! Hora !  
Swing Yer Partner DO-SI-DO

Architecture, Painting, Mozart, Allman  
Brothers, bagpipes, balalaikas, Beatles,  
Hall & Oates! Reggae , Kraftwerk

**Clean Air Outdoors and  
Mountains to reset the soul !**

Swing Sets and Family Time,  
and Goodnight Moon

Norman Rockwell, James Bond, Eric Carle

**Hobbies and Play ; Shesh Besh,  
Chess, Call of Duty Black Ops!**

Naguib Mahfouz,  
Tom Clancy,  
Winnie the Pooh

**Paella Bratwurst Spanikopita S'getti  
Bronzini. Mussels in green sauce. Grilled  
Brussels Sprouts.. (No)**

Khat Tobacco Schnapps Ouzo Single Malt!

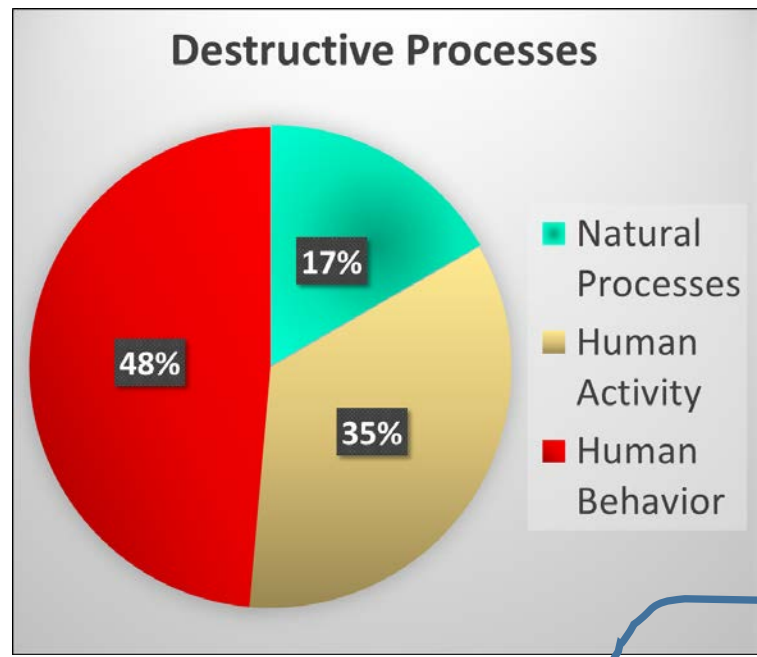
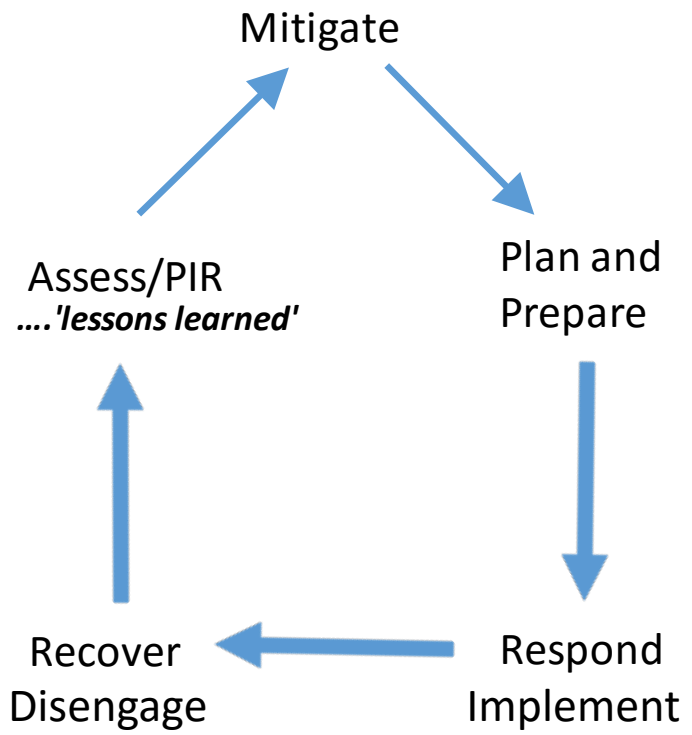
# Security Destructors...

(Bolded Items are associated with environmental damage and destruction ...)

Ultimately, our security is defined by our environment: the status of our soil, water, plants, food, forests, and state of mind...

despair  
air pollution  
alienation  
loss of apex predators  
bio extinction  
body scanning  
cancer, AIDS, disease  
**coastal flooding**  
consumer safety  
**coral bleaching**  
criminality  
cultural annihilation  
virus exposed by climate change  
**desertification**  
destructive drugs  
**destructive spirituality**  
**drought**  
earthquakes  
**El Ninio/La Ninya**  
electronic intrusion  
**energy**  
environmental poisoning  
**female trafficking**  
**gender inequality**  
global climate change  
human greed  
**human oppression**  
industrial accident  
**inland flooding**  
intolerance  
land mines  
**melting glaciers**  
nuclear accident  
nuclear war  
**overpopulation**  
pelagic irradiation  
**poverty**  
**racism**  
**rising ocean levels**  
**slavery**  
**loss of social services**  
surveillance  
**territorial disputes**  
toxic waste  
tsunamis  
**typhoons**  
WMD  
**war**

# Management Cycle



**A methodology to rank, prioritize and prepare for action to secure improved environmental security. This guides timing, funding, staffing and resourcing.**

## Management of Destructive Processes

Natural Processes	Very limited opportunity to prevent/reduce
Human Activity	Some opportunities to prevent/reduce
Human Behavior	<u>Increased opportunities to prevent/reduce</u>

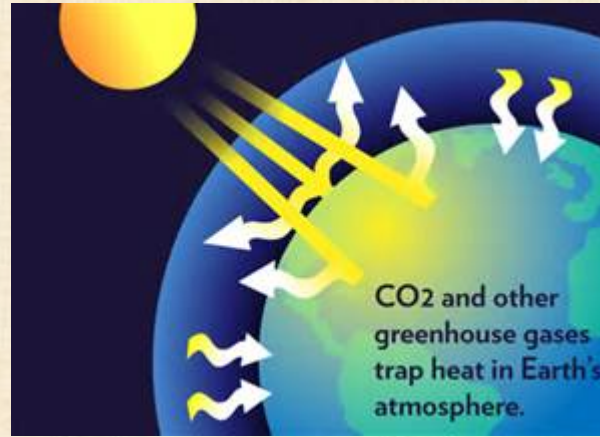
**What Can Be Done?**

Fund climate change campaigns by assessing offenders, and rewarding compliance

- energy efficient appliances
- Use alternate energy sources
- drive less, walk & cycle more
- less air conditioning
- less cattle (methane)
- less heating
- recycle to reduce packaging production
- reduce landfill growth
- reforestation to counter deforestation and fight desertification by planting grasses and keystone
- use fewer fertilizers, alternate agricultural use
- use less energy

# Global Warming

global surface temperature increase from human emissions of greenhouse gases



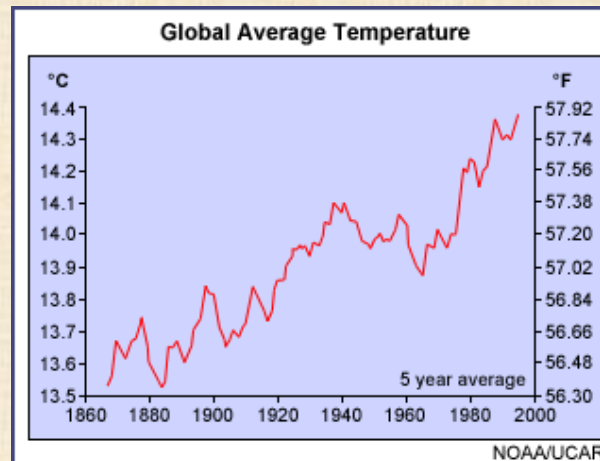
# Climate Change

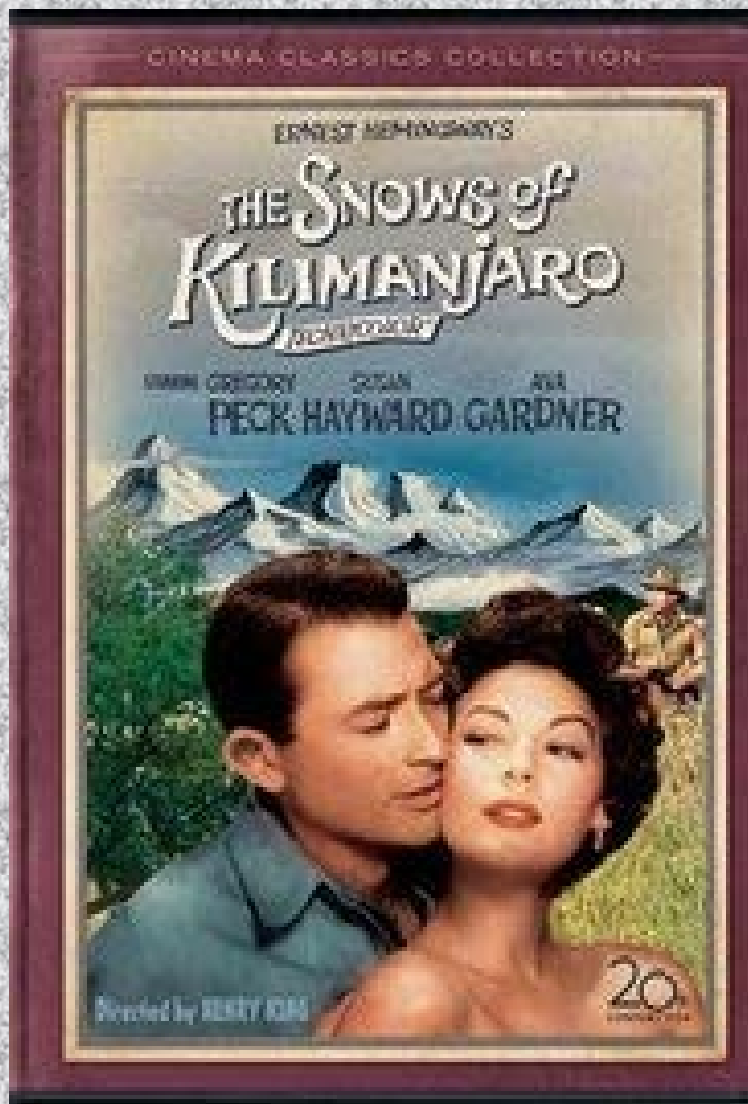
a long-term change in the Earth's climate, or of a region on Earth



# Global Climate Change

Precipitation and sea level: much greater human impact than temperatures alone → "global climate change" is more [compelling] term (NASA)





1952



2008



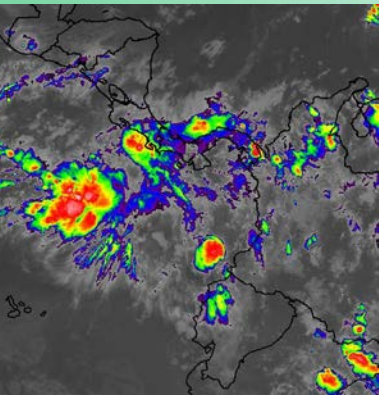
## Paris Climate Agreement, December 12, 2015

- UN accord to get almost every nation committed to reducing carbon footprint significantly; completed and up for signature 12/15; 167 countries signed
- Biggest offenders: China, US, India
- IMF and World Bank pressing for carbon pricing to go into effect
- Carbon pricing is key success factor for reducing CO2
- Offenders pay a 'carbon tax'; compliance yields 'credits' and there is a 'bitcoin'-like exchange mechanism to secure greater compliance
- World Bank documents poverty caused by climate change; 100 million people will be thrown into poverty in next ten years by climate change
- World Bank Carbon Finance Unit to encourage and assist adoption
- 90 countries have *some* kind of carbon financing in their climate plan
- Cruz and Trump have vowed to take the US out of the Agreement; Sanders supports it and Clinton stopped short of endorsing
- 40 countries have preliminary carbon pricing plans in effect



# NASA and NOAA Collaborate on Global Climate Change and Meteorology Basic Research

Collecting and Correlating data from :



NASA has 18 key satellite based global climate change missions underway, along with the Aerial Science Program (DC8, PC3, C130) and the NASA/NOAA collaborative research with Suborbital Global Hawk; and the Research Vessel Atlantis. This data is all being shared and synergistically analyzed to uncover dynamics of global climate change phenomena, the role that human activity and human behavior play ; and to develop mitigation strategies



## A Markedly Successful Collaboration ! Mare Nostrum – The Mediterranean Sea

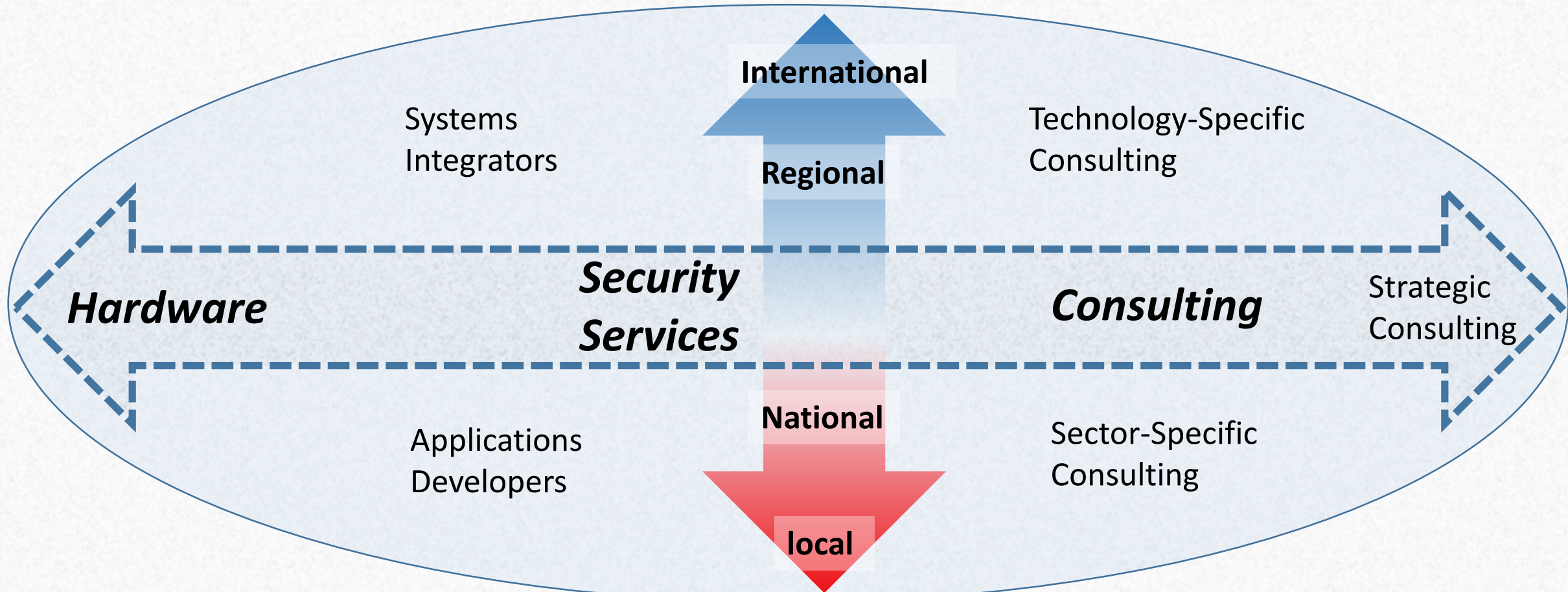


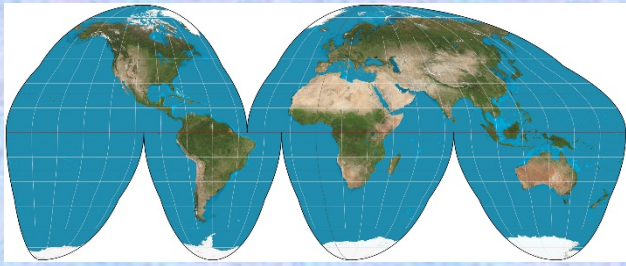
- **Grass-Roots Activism can transcend transnational competition and antipathies, and can serve as an example!**
- The case of the Mediterranean supports this view
- Mediterranean has been abused for thousands of years. Parthenon in Athens has suffered extensive damage in past thirty years due to acid rain, which also damages the Mediterranean
- Over 100 million people live on its shorelines and twice that number throng to its shores as tourists every year
- Only outlet is narrow Straits of Gibraltar so replenishment of water is excruciatingly slow compared to other oceans
- “Clean Up The World” has been around since 1975 and positive results have been achieved in the Mediterranean
- **Actions include stemming agricultural, industrial and sewage waste; and beach cleanups, underwater rubbish removal, education initiatives, tree planting, shoreline restoration recycling, water/energy reduction campaigns**
- **Countries involved in local community cleanups include Algeria, Libya, Tunisia, Israel, Egypt, Italy, Portugal, Serbia and Montenegro, Morocco, Greece, Cyprus, France, Morocco, Turkey, Gibraltar, Bosnia and Herzegovina, Croatia, Kosovo, Lebanon, Malta, Slovenia, Spain**
- ***Such grassroots coalition is inspiring; what Dr. Sylvia Earle (NOAA Chief Scientist) would call a .....HOPE SPOT !***
- Microplastics are a new threat and require aggressive cleanup. So the work will never be completed; it is a journey

# Private Security Industry Market Segmentation – Many Eyes on Different Parts of This Prize !

Is there role for the private security industry in the rubric of ‘Environmental Security’?

Definitely, but requires a requirements definition to narrow in which private security services/products are relevant





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Ruhengeri Market, Rwanda 2009 G. Lehman ©



## Industry Segments

### ***Management/Strategic Consulting***

Departments of Defense and State  
Resiliency Consulting  
Enterprise Risk Management  
Legal/Financial Security  
Social Engineering

### ***Services Management***

Guard/Executive Protection Access  
Control/Border Security  
Intrusion and Perimeter Breach  
Aerospace / Defense  
Cyber Crime /Cyber Terrorism  
Biometric Technology  
Data Security / Mobility Security  
Investigations and Surveillance  
Fire Protection/Disaster Mgmt  
Video and Video Analytics  
Employee Loss Prevention  
Retail Dynamics/Hot Spots  
Event /Fraud Detect/Identity Theft  
Counter Terrorism

## Global Regions

Africa  
South Asia  
East Asia  
Oceania  
China  
East Europe  
India  
Latin America  
Middle East  
North America  
Pacific Rim  
South Asia  
Western Europe

## Markets

Food Supply/Distribution  
Casino / Gaming  
Healthcare  
Higher Ed and/or K-12  
Hospitality  
Mining  
Nuclear  
Pharmaceutical  
Port/Maritime  
Transportation  
Residential  
Retail/Loss Prevention  
State and Local  
government



Virunga Wildlife Refuge, Rwanda 2009 G. Lehman ©

# International

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# Private Security Engaging in Environmental Security Case Study I

Situation Assessment Summary and Private Security Firm Selection Considerations:

- Major US aerospace/weapons systems manufacturer to implement Carbon Transfer System with African govts supporting major new distribution center /expansion of weapons systems sales 2B located Rwanda, servicing African markets
- Objective: Leverage corporate and government relationships in Rwanda and other govts securing best Carbon Pricing T&C
- Standard World Bank T&C will have serious negative impacts on bottom line, and are therefore unacceptable
- Requirement to show progress on carbon footprint *balance* to US gov't, to secure growth in US markets
- Additional requirement for advanced, comprehensive security infrastructure for weapons systems distribution center
- Will involve significant collaborative engagement with multiple African governments and Trade/Finance Ministries
- Significant competition from Anglo-French weapons systems manufacturers

WINNING BID: Booz | Allen | Hamilton



Booz Allen has extensive experience in complex financial system implementations; experience in the African market; relationships with several African finance ministries as well as a history of both domestic and international government procurement and regulatory environments; and has worked with the World Bank for many years on multiple projects. Booz Allen will partner with local Rwandan security firms which currently provide wide-ranging security services for multiple NGOs working in Rwanda.

# Private Security Engaging in Environmental Security Case Study II

Situation Assessment Summary and Private Security Firm Selection Considerations:



Winning Bid: No winner has been selected at this time. Respondents have not been able to present a credible, integrated inter-disciplinary solution set supported by on staff or field SMEs

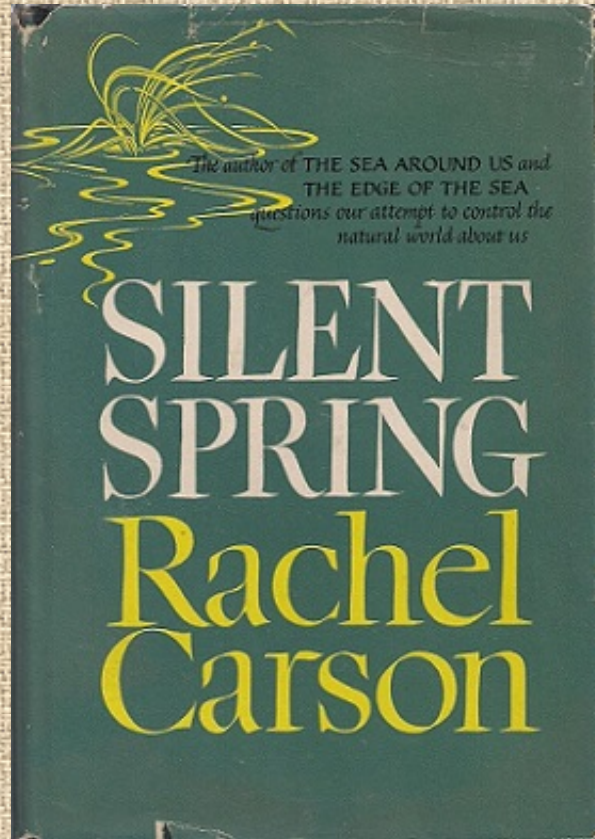
**Requirements:** Poachers are severely damaging Tanzania's future tourism revenue and market position relative to other African nations by relentless destruction of giraffe and elephant herds for bush meat and ivory. Revenge killing of lions which take cattle by gunfire/poison by farmers threatens to destroy severely depleted big cat populations which may eliminate the lion populations in all but the most remote locations, which are inaccessible and do not have tourism infrastructure. Current paramilitary force is over-burdened with increasing Islamic State presence, growth in capability and subversive activity in many parts of Tanzania.

**Selection Criteria:** Innovative integrated solution to protect wildlife by improving C4 and augmenting current security units with additional manpower; engaging with tribal community leaders to encourage corrective behavior regarding lion and giraffe populations (they are worth more alive than dead); partner with Tanzania Wildlife Authority and Panthera/YTY to create migration corridors for keystone species such as wildebeest in support of apex predator/big cat populations; and integrate advanced UAV and remote sensing technologies.



## Key Success Factors for Private Security Firms for Environmental Security:

- Environmental Security projects can run a wide gamut of requirements. The exact mix of knowledge, skills and abilities will depend on the requirements of the assignment.
- Key factors will include some or all of the following:
  1. Scientific skills on staff and/or ability to quickly engage scientific subject matter experts
  2. Ability to work with government authorities at all levels
  3. Possible requirement for advanced, cutting edge financial skills to implement carbon trading structures
  4. Command Control Communications Computer capabilities in the event of manpower staffing and deployment
  5. Community engagement to advance community buy-in with proposed solutions
  6. Ability to integrate advanced technologies such as perimeter detection, UAVs, remote sensing, video analytics
  7. Cyber-crime capabilities maybe required to prevent divulging project plans
  8. Regional expertise may be required
  9. Ability to operate in remote areas with requisite logistic support
  10. industry expertise may be required



I recommend reading this book. I read it in 1969 and never forgot it. Rachel Carson published this book in 1963 and thus founded the environmental movement. She grew up in the Rust Belt in early 1900's watching the then-active steel mills pumping out toxic smoke from Pittsburgh's steel blast furnaces. The book speaks eloquently and timelessly about the dangers of DDT insecticide to the bird (raptor) population; ospreys and eagles crushed their eggs in their nests under their weight. DDT was subsequently banned. Sir David Attenborough called this the greatest work in life sciences since *On The Origin of Species*. She died at age 57 in 1964 of lung cancer, possibly a deadly legacy of the smoke-filled skies of her youth.



***Mr. Rowan says.....Save My World !!!!!***



Any  
Questions  
Please?

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