

In The Name of GOD



Environmental Security

Mohsen Bahrami

**Aerospace Research Institute
IRAN**

Environmental Security

Military security, food security, and financial security are concepts the world has known for many years,

But until recently,

*“environmental security”
was an unknown concept.*

In his address to the UN Millennium Summit, President Eduard Shevardnadze of the Republic of Georgia raised this issue to the leaders of the world, saying:

global environmental security should be the direct responsibility of the UN and its Security Council.

A definition:

Environmental security is *environmental viability for life support*.

With three sub elements:

Preventing or repairing military damage to the environment,

Preventing or responding to environmentally caused conflicts, and

Protecting the environment due to the moral value of the environment

itself.

**Klaus Töpfer, Executive Director of UN Environment
Program (UNEP).**

*We have the Geneva Conventions, aimed at safeguarding the
rights of prisoners and civilians. We need similar safeguards
for the environment said*

Environmental Security

Emerging Issues

Emerging International Definitions, Perceptions, and Policy Considerations

United Nations Doctrine for Managing Environmental Issues in Military Actions

Environmental Crimes in Military Actions and the International Criminal Court (ICC) - UN Perspectives

Future International Issues and Potential Military Requirements over the period of 2010 to 2025

Currently there are more than 240 environment-related international treaties, conventions, and protocols. Additions to these treaties or subjects for potential new treaties include, for example:

- New resolutions on nuclear, chemical, and biological weapons
- Prior informed consent on trade of harmful chemicals (Rotterdam Convention)
- Stockholm Convention on Persistent Organic Pollutants
- Public access to pollution information (Protocol to the Aarhus Convention)
- Transboundary effects of industrial accidents on transboundary waters
- Strategic environmental assessment (Espoo Convention)

- Global classification and labeling system for chemicals
- Registration, evaluation, and authorization of chemicals
- Regional water management agreements
- International legal instruments for mountain regions
- Conventions for regional protection (such as northern Pacific Ocean, the Carpathians, and the Caspian Sea)
- Banning the commercial use of mercury
- Post-conflict environmental cleanup and management

New treaties and changes to the existing ones

Currently there are over 240 environmental-related international treaties, conventions, and protocols. Additions to these treaties or subjects for new treaties include:

- New resolutions on nuclear, chemical and biological weapons
- Electronic waste management
- Prior Informed Consent (PIC) on trade of harmful chemicals (Rotterdam Convention)
- The Stockholm Convention on Persistent Organic Pollutants (POPs)
- Public access to pollution information (Protocol to the Aarhus Convention)
- Transboundary Effects of Industrial Accidents on Transboundary

Waters

New treaties and changes to the existing ones ...

- Strategic Environmental Assessment (Espoo Convention)
- Global Classification and Labeling System for Chemicals
- Registration, Evaluation and Authorisation of Chemicals (REACH)
- Regional water management agreements
- International legal instruments for mountain regions
- Conventions for regional protection (i.e. Northern Pacific Ocean, The Carpathians, Caspian Sea)
- Reduce risks from mercury

UNEP's 22nd Governing Council and the 4th Global Ministerial Environment Forum on 3–7 February 2003 had the largest number of governments represented and total participants in its history.

It also discussed record numbers of documents and made more than 40 decisions.

The United Nations International Law Commission is exploring a new kind of agreement that would cover liability for harmful actions even when they are not prohibited by international law.

The United Nations University is training country officials in how to sift through the interlinkages of environmental treaties for better enforcement.

The EU's more demanding environmental rules will apply to the 12 new countries joining the Union.

Satellites are increasingly used as an environmental legislation enforcement tool.

The globalization of environmental regulations is increasingly affecting world trade and military operations. Many actions acceptable 10 years ago will not be tolerated 10 years from today.

Because the international trade requirements about the content and production of products are becoming tougher, countries and companies that cannot keep track of chemicals in their products and production will lose to those who can

The European “Polluter Pays” law is expected to come into force in 2005.

This law requires companies to cover the full cost of cleaning up environmental damage they cause and forces firms to pay for environmental liability insurance to cover cleanup bills even if they go bankrupt. There is no exception for any industry (not even ocean transport or nuclear industries).

Conflict and Post-Conflict Environmental Security Issues

The cost of military operations to comply with environmental regulations may become so high that the nature of conflict and military operations could change.

Iraqi environmental harm in Kuwait invasion greater than thought

**Environmental viability for life support is increasingly critical in the
Palestinian Occupied Territories**

Unexploded Ordnance

Landmines

Depleted Uranium

The use of depleted uranium as an ingredient in the outer coating of projectiles is likely to be banned in the future. The degree of danger presented by this component is still under investigation.

Biological warfare

The threat of biological and chemical warfare is probably the most significant factor in considering the possible environmental impact of future conflicts. h programs in general. (April 2003)

Nuclear Safety

Safeguarding radioactive materials is inadequate

Nuclear Clean-up

**Australia Claims First Complete Cleanup of an Atomic
Bomb Test Site**

Nuclear-Free Zones

Space Technology used to Monitor International Treaties

Better Use of Satellites to Monitor International Treaties

The Treaty Enforcement Services using Earth Observation (TESEO) was established two years ago by the European Space Agency (ESA) to help monitor international treaties and bring together agencies and organizations that otherwise do not usually collaborate. The international conventions involved in the TESEO effort range from monitoring wetlands and ensuring compliance with Kyoto Protocol emission targets to combating desertification and preserving World Heritage sites and protecting gorillas in east and central Africa. Several pilot projects have already begun.

UN agencies and conventions' secretariats met to at the European Space Agency's (ESA's) offices in Frascati to determine how to make better use of satellite imagery.

According to ESA, it is possible that the initiative will be folded into the upcoming Global Monitoring for Environment and Security (GMES) initiative sponsored by ESA and the European Commission; however, some ongoing projects (including the Kyoto inventory) will continue as independent activities. (March 2003)

European Space Agency (ESA) UrbEx used to tag urban 'hot spots'

As part of ESA's Data User Programme aimed at finding innovative, operational applications of Earth observation data to solve environmental and other problems, ESA Urban Expansion (UrbEx) project worked with WWF Italia for monitoring the urbanization of the Italian coast to catch overdeveloped 'hot spots'. In addition to demonstrating the capability to monitor urban growth using Earth observation information, the project included the development of an imagery database and analytical tools to assess the growth of urbanization and its impact on natural resources. (May 2003)

Suggestions and Insights

Frameworks are needed for systematic exchange and analysis of information among

Law enforcement agencies,

Customs services,

Environmental regulatory agencies,

Trade agencies,

To prevent and repair military damage to the environment

To prevent and respond to environmentally caused conflicts.

Thus

New agreements are needed for:

Data standards to improve information sharing

Ways to enforce compliance with current and future international agreements related to environmental security issues.

[i] The complete findings of the study are published in the March issue of "Environmental Health Perspectives." The abstract is online at:

<http://ehponline.org/orange2003/>

[ii] Environmental News Service, April 1, 2003 <http://ens-news.com/ens/apr2003/2003-04-01-19.asp#anchor4>

[iii] Atomic Radiation: U.N. Calls For Boost To Scientific Committee
<http://www.unfoundation.org/unwire/2002/10/16/current.asp#29644>

[iv] TUBE-ing with TESEO: Treaty officials assess how space could help. Paris (ESA) Mar 05, 2003, <http://www.spacedaily.com/news/eo-031.html>

[v] WWF Italia tags urban 'hot spots' with ESA's UrbEx

http://www.esa.int/export/esaCP/SEM95RR1VED_Protecting_0.html