

THEMATIC AXIS N ° 4: Environmental Protection and Defense.

I. Objectives:

- **To further studies on the possible participation of the Armed Forces in environmental protection**
- **To analyze the feasibility of cooperation among Ministries of Defense on environmental issues**

II. Introduction.

"In recent years, environmental protection has been presented as a need that transcends the borders of States to reach a global dimension." ⁱ Issues such as the protection of the atmosphere, water conservation, the protection of forests, wildlife and landscapes, policies for the treatment of waste, the unceasing fight against the contamination of the soil, which is product of activities such as illegal mining, deforestation, logging, drug trafficking among others, are recurrent in the daily events and directly and indirectly affect our countries in a greater or lesser extent.

In this regard, various agreements and forums have been signed and agreed upon, in order to promote and protect the environmental care. The list is long, but some of them are presented as a reference: [the Ramsar Convention \(1971\)](#) for the protection of the world's wetlands and waterfowl species in danger of extinction, [the Vienna Convention \(1985\)](#) to protect human health and the environment against adverse effects resulting from human activities; [the Montreal Protocol \(1987\)](#) for phasing out the production of numerous substances that are responsible for ozone depletion; [the Basel Convention \(1989\)](#) for the reduction of movements of hazardous waste between nations; [the Convention on Biological Diversity](#), adopted by the [United Nations Conference on Environment and Development \(UNCED - 1992\)](#); [the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter \(1972 and 1994 as a protocol\)](#); [Intergovernmental Forum on Forests in Rio de Janeiro \(1997\)](#); [The Kyoto Protocol \(1997\)](#) for the reduction of greenhouse gas emissions in most industrialized countries.

Regarding "Environmental Protection and Defense," it is worth highlighting the "[Declaration on Security in the Americas](#)," which in the "Commitments and Cooperation Measures" section, the signatory countries declared to recognize that "environmental deterioration affects the quality of life of our peoples and may constitute a threat, concern, or challenge to the security of states in the Hemisphere;" similarly, American States undertook "to strengthen our national capabilities, as well as inter-American mechanisms, in order to promote the sustainable use of our natural resources and advance toward integral development, and to promote conservation of the environment in a cooperative manner."ⁱⁱ

In this regard, Thematic Axis No. 4 of the XI Conference of Defense Ministers of the Americas, on "Environment Protection and Defense", materializes the concern and commitment of the defense and security sector of our countries to recognize and address this threat, concern and challenge to the security of the states of the hemisphere in an objective and coordinated fashion. In this way, we seek to share information and promote mutual understanding based on the experiences of the actions taken by the various American countries, for the protection of the environment, as well as to determine actions to be taken to make possible the cooperation among the Ministries of Defense on environmental issues.

III. Discussion Axes.

In most countries of the region, the protection of the environment has in institutions, agencies and corporations engaged in this work.

In most countries, the armed forces, according to their nature, do not participate directly in environmental conservation; however in the performance of their functions and activities, the involvement of the Defense Sector could be materialized directly and indirectly in supporting the authorities that have this mission in each country.

The indirect participation of Armed Forces (Defense Sector Activities in support of environmental conservation) is usually carried out when the capacity of the public security forces are overwhelmed by the magnitude of the problem, or when the situation demands geographical employment of forces, technological and especial resources, to access remote sites, or for the control, monitoring and protection of the environment.

The indirect participation of Armed Forces (Environmental Conservation Measures within the Military Services) is implemented in compliance with the regulations of each country for the development and implementation of a set of rules and tasks that lead to change institutional behavior in matters of environmental conservation.

1. Defense Sector Activities in support of environmental conservation.

By engaging in tasks for support to civil authorities, according to the legal framework determined by the legislative bodies of each country, the protection of the environment is carried out as an indirect objective. The Defense Sector of some American countries has developed a series of measures, translated into operations, to contribute to environmental protection, such as those listed below:

- The National Weather Service of Argentina, at the Ministry of National Defense, leads a Weather Center for Ashes Warning, by which it keeps monitoring the volcanic region of Argentina, in order to give timely forecast for dispersion and concentration of particles that affect air navigation and air quality of communities and infrastructure located in the vicinity of active volcanoes.
- The Brazilian Armed Forces, through the use of airborne and surface sensors, actively participate in obtaining information for the systematic monitoring of meteorology, climatology, hydrometeorology, monitoring of indigenous lands, areas of environmental protection, as well as the generation of intelligence in support of actions against transnational illicit acts associated with the predatory exploitation of natural resources such as timber harvesting, disorderly mining, animal trafficking, theft of species and drug trafficking. This information is gathered by the Management and Operational Center of the Amazon Protection System - CENSIPAM, a dependent agency of the Ministry of Defense of Brazil, whose mission is to "promote the protection of the Amazon through the synergy of government actions, joint planning, information integration and generation of knowledge."ⁱⁱⁱ
- The Chilean Air Force is leading the Earth Observation Satellite System, which aims at the observation of the territory, to be applied in areas such as precision agriculture, mapping update, urban growth control, monitoring of forest and management of natural disasters^{iv}. According to an inventory conducted by national experts, about 180 civilian applications have been identified, such as forestry and the study of their biomass, forest cadastre, monitoring of forestry and environmental protection, among others^v.
- The Armed Forces of Colombia have maintained a frontal fight against transnational organized crime and other threats, whose activities also affect the environment in the region. Among the main challenges and commitments of Colombia related to the subject matter is the fight against drug trafficking and illegal mining^{vi}.
- The Ministry of National Defense of Ecuador, by employing its armed forces, is responsible for defending and protecting the State's Security Zones ^{vii}. These zones are articulated to the national political-economic project, which considers ecology as one of its axes, as they are similarly articulated to the national planning instruments for the Well Living.

- The Ministry of Defense of Peru, through the employment of its Armed Forces, supports the National Police (PNP) in the fight against illegal mining and drug trafficking. Similarly, the Peruvian Air Force, as the responsible for leading and developing the Amazon and National Surveillance System (SIVAN), has planned to increase its operational capacity to obtain, through airborne and ground sensors, timely and accurate information for the fight against illegal activities such as mining, logging and drug trafficking, as well as hunting, illegal fishing, smuggling of species and its products. One of the sensors that integrate the SIVAN to fulfill their duties will be the CNOIS earth observation satellite, recently acquired by the Peruvian State.
- The member countries of UNASUR, during the South American Seminar on Monitoring Special Areas, held in Manaus – Brazil, from August 15 to 16, agreed to propose at the next meeting of the South American Defense Council, the establishment of three monitoring areas where systematic integration and cooperation projects can be developed:
 - Environmental monitoring: meteorology, hydrology, deforestation
 - Monitoring of illegal activities: illegal mining, illegal logging, drug trafficking, etc.
 - Monitoring of extreme events: floods, droughts, earthquakes, volcanoes, tsunamis, etc.

2. Measures for Environmental Conservation within the Military.

Protecting the environment is incorporated into military doctrine since it is linked to civil regulations for the operation and design of the Military facilities, Air Units and Naval Units. Environmental care is part of the statutes governing the daily life of military units such as the optimization of resources and other measures.

Below there is a series of measures that would directly cooperate with the conservation of the environment if adopted as institutional rules by the Armed Forces:

- Proper management of movable state property classified as Waste Electrical and Electronic Equipment (WEEE)
- Use of alternative and renewable energy sources
- Reduction of carbon emissions or pollutants affecting water, air, soil or human health
- Cleaning of areas affected by spills and leaks of toxic substances.
- Use of explosives within the relevant operational powers
- Treatment of oil spills and hazardous waste

- Treatment of sewage
- Promotion of relationships with local, regional institutions for the development of activities and programs for environmental improvement

The Defense Sector by creating its organizational structure in offices or agencies responsible for environmental issues would optimize the adjustment of the abovementioned measures.

On the other hand, countries like Spain have adopted, within their environmental policy of the Ministry of Defense, the concept of sustainable development, through which they establish that the missions of the armed forces must be compatible with the existing legislation on conservation, protection and, where possible, the recovery of environmental conditions. To this end, they have established a system of uniform Environmental Management at all levels of the Department, based on the principles of ISO 14000, which ensures continuous review and monitoring of the effects on the environment, in a simple, clear and effective fashion^{viii}. As Alfonso de Ceballos says, “the results have been impressive, and can be seen by everyone: 194 military bases and facilities already have the certificate of environmental management (based on the Environmental Management System defined by the ISO 14001 standards)”^x.

IV. Conclusions.

The Armed Forces must respect the environment when conducting their activities in a manner consistent with the natural environment in which they work.

The Armed Forces of the Americas are currently involved in varying degrees in environmental protection. This direct and indirect participation is in support of State agencies responsible for conducting this task.

The use of technology such as earth observation satellites, built-in sensors to airborne platforms and surface sensors allows the Armed Forces to obtain operational capacities for monitoring surface and airspace.

The operational capacities acquired by the Armed Forces are a powerful tool to obtain timely and accurate information that can be used in the fight against illegal activities that damage the environment, such as drug trafficking, illegal logging and mining, among others. These capacities can be used for timely detection and assessment of extreme weather events and natural disasters that affect the environment and the safety and well-being of populations.

Members of the Military can work directly with the protection and conservation of the environment, by adopting a series of measures that generate institutional behaviors for environmental conservation.

The ISO 14000 standard, as an international environmental management standard, is a way to implement environmental regulations on military bases and facilities.

Sharing knowledge and experience among the Armed Forces of the Americas on employment and management of the products obtained from the observation of the land, sea surface and air space would enhance the information obtained for the environmental protection in the region.

V. Proposal.

Commitment of the Defense Sector of the Americas for the adoption of measures that directly cooperate with the conservation of the environment (paragraph 2).

Development of working mechanisms for the integration and exchange of information for monitoring systems and technologies of the American Armed Forces for preserving the environment.

Promotion of the exchange of training of human resources on the employment of the resources of monitoring systems.

Creation of the organizational structure of the Defense Sector, offices or agencies responsible for environmental issues.

Conduction of educational activities in the military and social environment to promote behavioral changes in the conservation of the environment.

Participation in simulation exercises on ecological disasters, together with other national bodies.

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- ⁱⁱ Ibid.
- ⁱⁱⁱ CENSIPAM presentation at the regional headquarters in Manaus, to the Amazon and National Surveillance System Committee - Peru. June 24, 2013.
- ^{iv} INACAP Coyhaique, “Chilean Air Force holds a talk on the Fasat-Charlie satellite in INACAP Coyhaique”. July 2014. Available on website: <https://www.inacap.cl/tportalvp/coyhaique/contenidos/noticias-coyhaique/fuerza-aerea-de-chile-realiza-charla-sobre-fasat-charlie-en-inacap-coyhaique> . Consulted on August 26, 2014.
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