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Employment of The Brazilian Armed Forces against Transnational and Environmental Crimes

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Abstract

The purpose of this research is to study the Brazilian Armed Forces' employment against transnational and environmental crimes, both non-traditional threats. It is specifically dedicated to studying how Brazilian Armed Forces are prepared and employed, and what are the most significant challenges and difficulties. Moreover, this research aims to indicate ways forward and new solutions for this kind of operations.

Initially, the main ideas and definitions involved in this research are exposed. Following those main concepts, transnational and environmental crimes, are defined and the current situation in South America, regarding non-traditional security threats, is presented. Follows an analysis of the forms of employment of Brazilian Armed Forces against transnational and environmental crimes. The features of this employment, its main strengths and weaknesses are presented. The interactions between the Brazilian Armed Forces and other governmental agencies, when acting within the borderland area, are also subject to this study.

To reach its objectives, this work is based on extensive bibliographical research, held in the library of National Defense University/College of Defense Studies – Changping – Beijing – China, Brazilian Armed Forces official, open documents and others sources, mostly accessed in websites, especially from Brazilian Ministry of Defence and Brazilian Armed Forces, including their three branches: Navy, Army, and Air Force.

Transnational and environmental crimes are defined in Chapter 1. The current situation in South America, regarding non-traditional security threats, is also presented, and the complexity and the difficulties of the South American scenario, when regarding security issues, are also made known.

Moreover, in Chapter 1 the effects on national security inflicted by transnational and environmental crimes are presented. The threats to Brazilian sovereignty, represented by the presence of international environmental NGO, with the pretext of acting in defense of the environment, are studied. In the same way, the influence of transnational drug and weapons traffic over the organized crime inside Brazil is explored. Finally, the presence of cyber crimes and terrorist threats, both transnational crimes that have effects over Brazilian National Security, is demonstrated

Subsequently, in Chapter 2, the mission of Brazilian Armed Forces regarding non-traditional security threats is analyzed. The efforts made by the Brazilian Armed Forces to

deal with non-traditional security threats are also presented. In order to fully understand the employment of Brazilian Armed Forces against non-traditional threats, the organization, and mission of Brazilian Navy, Army, and Air Force is presented. The legal and normative basis for that employment of the Armed Forces against non-traditional threats are explained, as well as how it is currently performed.

When the primary methods of employment of Brazilian Armed Forces against transnational and environmental crimes are presented, it is explored that, since 2011, the actions of Armed Forces within the borderland areas of Brazil were intensified by the carrying out of **Ágata Operations**. These operations have been conducted in partnership with several agencies, subordinated to twelve Ministries of the Federal Government. They are joint activities, conducted and coordinated by the Brazilian Armed Forces, aiming to combat trans-border and environmental crimes, in coordination with other federal and state agencies. The *Ágata* Operations represents the most important effort made by the Ministry of Defense and Brazilian Armed Forces to implement the measures against transnational and environmental crimes.

Ten editions of Operations *Ágata*, from 2011 to 2015, have brought a series of tactical, operational and strategic experiences to be learnt.

At the tactical level, the procedures and techniques used by the troops were tested. The huge extent of the Brazilian borders, largely through the dense Amazon rainforest, where there are no physical boundaries between countries, hinders the performance of the Armed Forces and other federal agencies. This challenge has been requiring the troops to enhance the intelligence efforts. There are lessons to be learnt about command and control, readiness and employment, and joint operations, amongst other. The challenges for the accomplishment of the mission, are hereby presented, and ways forward are offered.,

Following this analysis, the political, economic, and military challenges concerning transnational and environmental threats are presented. After considering the challenges faced by the Brazilian Armed Forces in their employment against those nontraditional threats and related crimes, some existing and possible alternatives to face those difficulties are logical outcomes.

Four ways forward are therefore presented: the Border Monitoring Integrated System (SISFRON), with the propose of the creation of two structures: an instance of interagency coordination at the political/strategic level and an organization that could be a centre of study

and training for interagency operations. Finally, the importance of ensuring the necessary flow of budgetary resources is justified.

Finally, it is possible to conclude that this research proved that the employment of Brazilian Armed Forces in the fight against transnational and environmental crimes brought important results, experiences, and lessons to be learnt.

First of all, this kind of mission is imposed by Brazilian law, which regulates the actions clearly, giving necessary legal support for the operations. The Operations *Ágata* is a typical operation oriented to non-traditional threats. These operations are being planned centrally by the Ministry of Defense and executed decentralized by the Brazilian Armed Forces. They are performed in predetermined periods; the neighbor countries are previously informed and invited to participate in the activities, operating on their side of the border or sending observers to the Brazilian side. These operations include surveillance and monitoring of land and airspace, and control of the rivers and roads that enter the Brazilian territory from the neighboring countries.

Besides, several governmental agencies work within the borderland of Brazil is also explored. The interagency environment creates several challenges for the employment of the Armed Forces, which requires from military commanders the ability to mediate conflicts, create consensus and coordinate forces amongst all the involved actors.

Thus, the Operations *Ágata* are very good opportunities for the Brazilian Armed Forces to practice joint operations in an interagency environment. This kind of experience develops skills that can be highly useful for all kinds of operations, from traditional to non-traditional security threats.

The challenges to accomplish the mission are huge. They come from political, economic and military fields. As a developing country, Brazil has several other aspects that dispute attention from the federal government. When health, education, and other very important issues rise, is not easy to convince politicians that a peaceful country like Brazil must invest in defense matters.

On the other hand, there are many military challenges. Training, Command and Control, and Logistics are the most important aspects studied in this research.

There are viable alternatives to address the challenges presented in this work. They include systemic solutions, like the Border Monitoring Integrated System (SISFRON), management solutions, the creation of instances of coordination and instruction, and financial solutions, ensuring the necessary flow of budgetary resources.

Finally, this research demonstrates that the Brazilian Armed Forces, acting against transnational and environmental crimes, in addition to the fulfillment of the remaining tasks lawfully imposed, prepare themselves to fight the 21st Century's battle. And the war of the 21st Century is being waged among people, in an environment with several governmental and non-governmental agencies, often against a non-state enemy.

All these features are present in the operations carried out by Brazilian Armed Forces in the borderland areas of the homeland.

Key Words: Brazilian Armed Forces; Brazilian Army, Non-traditional security threats; Transnational crimes; Environmental crimes

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EMPLOYMENT OF THE BRAZILIAN ARMED FORCES AGAINST TRANSNATIONAL AND ENVIRONMENTAL CRIMES

Introduction

South America is distant from the main hotspots in the world. The countries of the continent maintain a relatively favorable environment for cooperation and integration. Despite this positive situation, the continent has many security challenges, most of them non-traditional threats.

There are many areas in South America where the chronic underdevelopment persists. In these regions, unmet social needs can generate social instabilities. Transnational crimes and environmental crimes, both non-traditional threats, are also common problems for all South American countries.

Regarding Brazil, its very rich biodiversity – approximately 20% of the Earth's biodiversity¹ -, the great potential, not yet exploited, of strategic natural resources, the largest drinking water reserve on Earth², in short, Brazilian unlimited natural resources are assets that arouse lust and must be protected by Brazilians.

The Brazilian Armed Forces have their mission defined by the Constitution of the Country:

*Art 142 – The Armed Forces, comprised by Navy, Army, and Air Force, are permanent and regular institutions, organized on the basis of hierarchy and discipline under the supreme authority of the President of Republic, and are intended for the defense of the country, for the guarantee of constitutional powers, and, on the initiative of any of these, of law and order.*³

¹ Brasil - Presidence of the Federative Republic of Brazil. See http://brazil-works.com/wp-content/uploads/2012/11/Fact-sheet_india_final.pdf

² Pacific Institute See <http://worldwater.org/wp-content/uploads/sites/22/2013/07/ww8-table1.pdf>

³ Constitution of the Federative Republic of Brazil – Available in http://www.stf.jus.br/repositorio/cms/portaStfInternacional/portaStfSobreCorte_en_us/anexo/constituicao_ingles_3ed2010.pdf

In addition to the Constitution, a law regulates the activities of the armed forces: the complementary law 97/1999⁴. This law establishes “the general norms for the organization, preparation, and use of the armed forces.” This law lays out how the Brazilian Armed Forces can be employed acting through preventive and repressive actions by the borderline of the country, at sea and in inland waters against transnational and environmental crimes, specifying which activities can be executed: patrolling, search of persons, vehicles, aircraft, and ships, and arrest of individuals in the case of flagrant crimes.

Thereby, the secondary employment of the Brazilian Armed Forces in a typical police activity, to promote public security against non-traditional threats, has legal provision. This fact gives great relevance to this study since subsidiary employment shall be conducted along with all other core activities of the Brazilian Armed Forces, regarding the defense of the sovereignty, law, and order, participation in international missions, and general security of the country, amongst others.

a. MAIN IDEAS OF THIS RESEARCH

The main ideas of this research are related to the forms of employment of Brazilian Armed Forces against transnational and environmental crimes. The features of this employment, its main achievements, its weaknesses. How the Brazilian Armed Forces interact with other governmental agencies when acting by the borderline of the country is also the subject of the research.

b. AIM OF THE DISSERTATION

This dissertation aims to study the Brazilian Armed Forces employment against transnational and environmental crimes, both non-traditional threats. Specifically, it is pointed on how these Forces prepare themselves, how they are employed, what are the most significant challenges and difficulties. Moreover, the research aims at pointing out ways forward and new solutions for this employment.

⁴ Supplementary Law n 97 - See (in portuguese) in http://www.planalto.gov.br/ccivil_03/leis/LCP/Lcp97.htm

c. NON-TRADITIONAL THREATS IN SOUTH AMERICA AND BRAZIL

After the end of the Cold War, which marked the end of a bipolar world order and its characteristics of the balance of power, the entire notion of security has changed. Thus, the paradigm of state-centric security studies has been challenged.

The capacity of protecting its own interests against international threats is comprised on the classical definition of National Security. But this traditional approach is no longer able to cope with several new, complex challenges. Terrorism, climate changes, transnational crimes, environmental crimes, nuclear proliferation, national disasters, all these threats demand a much more sophisticated and integrated approach.

According to Chinese General Xiong Guangka⁵, there are four features of non-traditional threats: (1) they transcend national boundaries and are thus transnational in nature; (2) they go beyond the military sphere; (3) they often are sudden and unexpected, and (4) they are frequently mixed with traditional security threats.

Therefore, military forces all around the world are facing a new challenge. How to be prepared for these new non-traditional challenges? How to face these new, complex, and frequently unexpected problems? This research aims at help to find some answers to these questions.

South America has about of 17,8 million square kilometers, being the fourth largest of world's continents. The continent has twelve sovereignty States – Argentina, Brazil, Uruguay, Paraguay, Peru, Ecuador, Chile, Bolivia, Colombia, Venezuela, Guyana, and Suriname; and two no sovereign territories – French Guyana and Malvinas (Falklands) Islands.

⁵ Quoted by Susan L. Craig in Chinese Perceptions Of Traditional And Nontraditional Security Threats



Figure 1 - South America
Source – Public domain - the internet

Except two little countries of the north, Guyana, and Suriname, and the territories of French Guyana and Malvinas (Falklands) Islands, all South American countries were colonized by the two Iberian States: Spain - all countries except Brazil – and Portugal – Brazil.

According to the most recent official data, the total population of South America is about 415 million. Brazil has 49% of this population.

Besides, the continent is divided among its countries and territories by 25 (twenty-five) land borders. A significant part of these boundaries are between countries that speak the same language (Spanish) and have a common cultural heritage and similar values.

There is a common feeling of “Spanishness” linking the countries of the Spanish language. This feeling is present in the concept of “Latin America”, that is much more a cultural concept than a geographical notion.

This kind of feeling unites different countries. Under this perspective, border makes countries closer, instead of separated.

To the subject of this study, this characteristic is crucial because shows the complexity of the issues related to transnational crimes in an environment of permeable borders and great flow of people and goods.

This intense flow of individuals and goods is facilitated by international organisms, like Southern Common Market - MERCOSUL and Andean Community of Nations. MERCOSUL is a common market founded by Argentina, Brazil, Paraguay, and Uruguay, on March 26th, 1991. Nowadays, Bolivia and Venezuela are also members. Andean Community of Nations is a customs union comprising Bolivia, Peru, Ecuador, and Colombia.

In the field of the defense, South America is the only continent in which all sovereign states share a defense mechanism: The Council of South American Defense, in the scope of Union of South American Nations. The Council has the purpose of consolidating South America as a zone of peace, creating conditions for political stability and economic and social development; as well as building a South American defense identity, generating a consensus that contributes to strengthening cooperation on the continent⁶.

Brazil, the largest country in South America, has 49% of the population⁷ and 47% of the area⁸ of South America. The country has land boundaries with ten countries, totalizing 16,145 Km.⁹

The Brazilian coastline has 7,491Km. After a successful, peaceful, and long process of consolidation of boundaries, conducted during the 19th century and the beginning of the 20th century, Brazil does not have any international borders disputes with its neighbors.

The population of the country is formed by white (47,7%), pardo (mixed white and black (43,1%), black (7,6%), Asian (1,1%) and Indigenous (0,4%).

The economy of the Republic is greater than that of all other South American countries, and Brazil is expanding its presence in world markets¹⁰. The Brazilian GDP is about US\$ 3,16 trillion (48,15% of South American GDP) (2015¹¹), which locates the country in the 8th largest economy in the world.

The existence of non-traditional threats and its transnational pattern recommend that States face them together, sharing capabilities and responsibilities. This approach was recommended in 2009 by the UN Secretary-General, Ban Ki-Moon:

The trans-national nature of the threat means that no country can face it alone. This fight requires a comprehensive international approach based on a strong sense of shared

⁶ Brazilian Ministry of Defense - See <http://www.defesa.gov.br/relacoes-internacionais/foruns-internacionais/cds>

⁷ Population of Brazil - 204.259.812 (July 2015 est.) – author's note

⁸ Total area - 8.516 million km² - author's note

⁹ All South American's countries, except Chile and Ecuador – author's note.

¹⁰ The World Factbook <https://www.cia.gov/library/publications/the-world-factbook/geos/br.html>

¹¹ International Monetary Fund – See <https://www.imf.org>

*responsibility. States must share intelligence, carry out joint operations, build capacity, and provide mutual legal assistance.*¹²

New threats, in contrast with traditional threats, were also subject of an appointment from the Declaration on Security in the Americas, issued by the Organization of American States¹³,

The security of states of the Hemisphere is affected, in different ways, by traditional threats and the following new threats, [...]: terrorism, transnational organized crime, the global drug problem, corruption, asset laundering, illicit trafficking in weapons, and the connections among them; trafficking in persons; attacks to cyber security; among others.

Although South America is not a frequent stage for terrorist attacks, terrorism is indeed a concern for the safety of the region. The lastly active and most prominent terrorist group in the region is the FARC – Revolutionary Armed Forces of Colombia. In the last 50 years, the conflict in Colombia has left approximately 220,000 people dead¹⁴. The FARC had long used violence, kidnappings, and extortion as sources of leverage and income. The FARC also participates in the lucrative market of production and sale of cocaine. In the early 2,000s, Colombia was responsible for as much as 90% of the world’s cocaine production¹⁵. Estimates of the incomes of FARC deriving from the trade of narcotics differ. In 2012, *InSight Crime*, an online publication specialized in organized crime in Latin America and the Caribbean, projected the figure at about US \$200 million, although Colombian Defense Minister Juan Carlos Pinzón said it could be as high as US \$3.5 billion.

When dealing with the subject of terrorism, it is important to highlight the existing suspicions that some Islamic communities in South America could provide support to international terrorist groups. In the Tri-Border Area (TBA) – where Paraguay, Argentina, and Brazil converge – the presence of Islamic communities is important. It is a Shia’s majority and a Sunny minority. Estimations of the size of the Arab population of immigrants in the TBA range from 10,000 to 30,000. Of course, it does not mean that the Islamic community in this area is connected to terrorism, but is undoubtedly possible the support from extremist and fundamentalist individuals or groups living amongst the Islamic community that could support terrorist acts related to the violent Jihad.

¹² Secretary General Ban Ki-moon Remarks to Security Council meeting on Drug Trafficking as a Threat to International Peace and Security (8 December 2009).

¹³ DECLARATION ON SECURITY IN THE AMERICAS, Adopted at the third plenary session of October 28, 2003

¹⁴ Colombia Government- <http://www.elpais.com.co/elpais/archivos/bastaya.pdf>

¹⁵ United States Government Accountability Office - <http://www.gao.gov/new.items/d09806.pdf>



Figure 2 - Tri-Border Area
Source – Tavares, 2014

Although there is no proof that terrorist groups have activities in the TBA, the Argentinian intelligence believes that some Islamic Extremists have used the region as a temporary base for carrying out two major attacks in Buenos Aires, in the early 1990's, against Israeli Embassy and against the Argentinian-Jewish Mutual Association.

The illegal drug trafficking is another significant challenge for South American countries. South America is the largest producer of cocaine in the World. In 2011, each Colombia and Peru accounted for some 40 percent of the total area under coca cultivation worldwide, and Bolivia accounted for the remaining 20 percent¹⁶. In South America, there is drug crop cultivation, drug trafficking, drug production, and drug consumption.

Other non-traditional threats that involve South American countries are the environmental risks. They can be defined as environmental problems caused either by the human activities or by natural disasters, which, as one of the results, affect the security and welfare of individuals. The economies of the South American countries are heavily dependent on natural resources. The economic exploitation of such resources, as well as climate change, partly influenced by those human activities, make these environmental crimes an important challenge for the continent's security.

¹⁶ TAVARES, Rodrigo. Security in South America: The Role of States and Regional Organizations. First Forum Press, USA, 2014

Besides, the illegal traffic of small firearms is another security problem in South America. There is a tight link between the drugs trafficking and the firearms trafficking. The majority of weapon and ammunition entering illegally in Brazil comes from Paraguay, mainly through TBA.¹⁷

¹⁷ National Congress of Brazil. Report of Parliamentary Committee of Inquiry into Arms Trafficking .

1. SITUATION OF TRANSNATIONAL AND ENVIRONMENTAL CRIMES IN BRAZIL

1.1 DEFINITIONS

According to the United Nations Environmental Investigation Agency, **environmental crimes**

*[...] can be defined as illegal acts which directly harm the environment. They include illegal trade in wildlife; smuggling of ozone depleting substances (ODS); illicit trade in hazardous waste; illegal, unregulated, and unreported fishing; and illegal logging and the associated trade in stolen timber.*¹⁸

By definition, **Environmental Crimes** cannot be restricted by territorial boundaries. As stated by INTERPOL¹⁹,

The same routes used to smuggle wildlife across countries and continents are often used to smuggle weapons, drugs and people. Indeed, environmental crime often occurs hand in hand with other offenses such as passport fraud, corruption, money-laundering, and murder.

Brazil has a specific law to deal with environmental crimes: The Law 9,605/1998²⁰. According to this law, environmental crimes are classified into five different types: against fauna, against flora, pollution, opposing urban planning and cultural heritage, and against the work proceeded by the environmental administration.

How one could see in the introduction of this paper, one of the Brazilian Armed Forces' role in fighting against to this kind of crime is limited by law to the borderland region of the country. In that area, the most frequent crimes are against fauna and flora, including the following: illegal logging, wildlife smuggling, and flora trafficking.

Transnational crimes are those committed transcending international boundaries. According to United Nations Convention Against Transnational Organized Crime And The Protocols Thereto²¹,

An offence is transnational in nature if: (a) It is committed in more than one State; (b) It is committed in one State but a substantial part of its preparation, planning, direction or

¹⁸ Environmental Investigation Agency. Source:

http://www.unodc.org/documents/NGO/EIA_Ecocrime_report_0908_final_draft_low.pdf

¹⁹ INTERPOL <http://www.interpol.int/Crime-areas/Environmental-crime/Environmental-crime>

²⁰ Law 9.605 - http://www.planalto.gov.br/ccivil_03/leis/L9605.htm

²¹ UNITED NATIONS – Source - https://www.unodc.org/documents/middleeastandnorthafrica/organised-crime/UNITED_NATIONS_CONVENTION_AGAINST_TRANSNATIONAL_ORGANIZED_CRIME_AND_THE_PROTOCOLS_THEREO.pdf

control takes place in another State; (c) It is committed in one State but involves an organized criminal group that engages in criminal activities in more than one State; or (d) It is committed in one State but has substantial effects in another State.

Transnational crimes that most threaten Brazil are drugs trafficking, illegal small arms trade, cyber crimes, and terrorist threats.

1.2 MAIN CHARACTERISTICS OF TRANSNATIONAL AND ENVIRONMENT CRIMES IN BRAZIL

The prohibited drug trade directly threatens the security interests of Brazil and all South American states. No other criminal activity can match the profits generated from illegal narcotics trafficking; this translates into an unusual capacity for drug offenders to corrupt public officials, destabilize governments, and damage sustainable economic development²².

In countries where the traffic of narcotics is significant, crime rates are higher. Drug trafficking can be responsible for rising criminality and violence in Brazil. The high rates of violence in Brazilian larger cities can be attributed mainly to the existing conflicts between the gangs of drug traffickers and the clashes of these gangs with the police.

Since Brazil is not a major producer of coca, the cocaine which enters the country and is consumed in most likely originates in Peru or Bolivia. According to some estimates, more than half of all cocaine consumed in Brazil is trafficked through Bolivia, of which almost two-thirds is grown in Peru. In 2009, Brazil was the most prominent transit country in the Americas in terms of number of seizures of cocaine shipments heading Europe²³.

To combat transborder trafficking organizations, Brazil cooperates with neighboring countries through joint intelligence centers (JIC) in strategic border towns. Brazil is a party to the 1988 UN Drug Trafficking Convention, the UN Convention against Transnational Organized Crime and its three protocols, the 1971 Convention on Psychotropic Substances, and to the UN Convention against Corruption.

The illegal small arms commerce, or the illicit weapons trafficking, is a byproduct, of narcotics trafficking. Several studies indicate that the total seizures of foreign weapons in Brazil is not important when compared to the total Brazilian seized weapons in the hands of

²² International Narcotics Control Strategy Report See <http://www.state.gov/j/inl/rls/nrcrpt/2010/vol1/137194.htm>

²³ TAVARES, Rodrigo. Security in South America: The Role of States and Regional Organizations. First Forum Press, USA, 2014

criminals. However, the apprehension of weapons of foreign origin indicates that there are illicit channels of entry into the country. The majority of the illegal arms entered in the country comes from Paraguay, especially through the tri-border area. (See Figure 2).

Besides, the cyberspace is still an unknown environment, poorly defined, without borders or law. It is estimated that nowadays 28% of the world's population is using the internet, something about 2 billion people. Among these individuals, how many could be cyber-warriors, or cyber-criminals, whatever the cause or motivation they could fight for? How many computers would be "enslaved", without the permission or knowledge of their owners, to serve to criminal interests? Only these few considerations are sufficient to show how serious this type of threat is for national and international security.

Obviously, Brazil has also been threatened in the cyberspace. In fact, cyberwar, cyberterrorism, and cyber-crimes threatened all countries currently.

Cyber-crimes include a wide array of crimes, from banking fraud and identity theft to drug trafficking and child pornography. The estimated costs of cyber-crimes to the Brazilian economy are estimated at US \$ 8 billion annually or 7% of the global total

Brazil, like any other country in the world, is not free of terrorist threats. However, it is important to emphasize that the country has no clear threat in this matter. According to the third edition of The Global Terrorist Index, produced by The Institute for Economics and Peace, the country is situated in "Lowest Level" of the impact of terrorism.²⁴

There has been no attack of this nature in the country over the past thirty years. But it is important to remember that an attack is only a single act among a huge list of terrorist activities that can be launched. Any cyber-attack is preceded by a series of interconnected activities, such as recruitment, radicalization, and diffusion of ideas, funding, training, logistics, management of material resources, sharing knowledge and materials, planning, surveillance, etc. Similarly, after the attack, a terrorist group still engages in other activities, such as escape-and-evasion of the surviving terrorists, dissemination and advertising of facts and radical ideologies of the group/individual, political and ideological exploitation of the attacks, etc.²⁵

As we could see in the introduction of this paper, the Tri-Border Area (TBA), located between Brazil, Argentina and Paraguay is a place where some of the activities above could be happening.

²⁴ The Global Terrorist Index, produced by The Institute for Economics and Peace. See <http://economicsandpeace.org/wp-content/uploads/2015/11/Global-Terrorism-Index-2015.pdf>

²⁵ TAVARES, Rodrigo. Security in South America: The Role of States and Regional Organizations. First Forum Press, USA, 2014

1.3 EFFECTS ON BRAZILIAN NATIONAL SECURITY INFLICTED BY TRANSNATIONAL AND ENVIRONMENTAL CRIMES

The National Security of Brazil is greatly affected by environmental and transnational crimes. Currently, all nations are challenged to find the path to the development of respect for the environment. However, to Brazil, the environmental issue is very complex, due to the characteristics of the country.

1.3.1 The effects inflicted by international actors

Brazil has one of the higher biodiversity in the world. According to the Brazilian Government,

[...] an estimated 20 percent of the Earth's biodiversity is found in Brazil. The country is the home of at least 103,870 animal species and between 43,000 and 49,000 plant species- not to mention microorganisms, algae, and several organic groups never before studied. About 700 new animal species are discovered each year in Brazil, and a new plant species is identified about every two days.²⁶

Although the Brazilian sovereignty over its own territory includes all environmental assets, all of them indisputable and nonnegotiable, it is clear that the eyes of the world are focused on how Brazilians treat the environment of their own territory. Thus, it becomes even more important to fight against environmental crimes, since this fight shows to the world how the commitment of the country to the environmental conservation and to international conventions on this matters.

This international features of environmental issues attach great importance to them and require an effective action of the state in fighting against environmental crimes. In fact, the National Security can be threatened if the international community decides to intervene in internal issues using this kind of problems as an excuse.

²⁶ See Biodiversity in Brazil - http://brazil-works.com/wp-content/uploads/2012/11/Fact-sheet_india_final.pdf

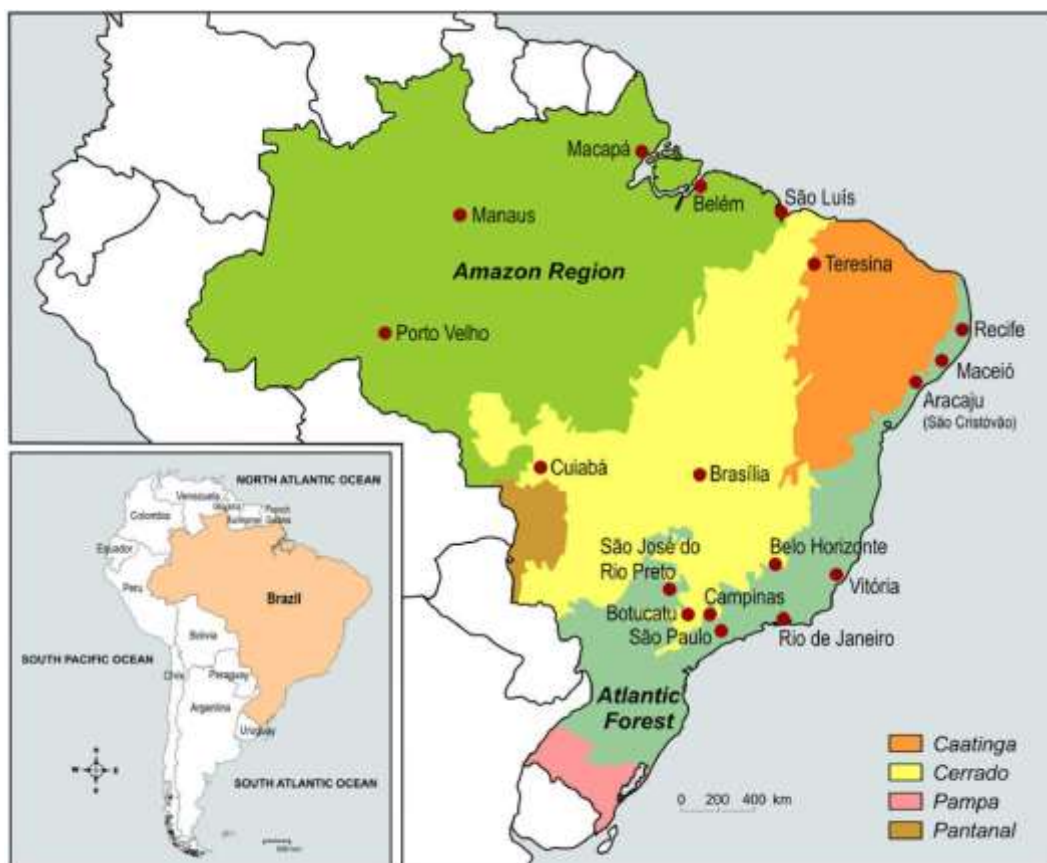


Figure 3 - Brazil - biomes

The presence of international nongovernmental organizations (NGOs)²⁷ inside the Brazilian territory is another condition that emphasizes the necessity of the country to pay attention to environmental issues. If the country indicates to the international community that can deal properly with its environmental challenges, combating crimes and developing the region preserving the natural riches, external pressures that could threaten country's sovereignty will decrease significantly.

Below, one can see a map, available on the website of WWF, concerning Amazon deforestation. It is an example of the international pressure on environmental issues.

²⁷ Some of the most important: Greenpeace (<http://www.greenpeace.org/international/en/>), WWF (www.panda.org), Conservation international (<http://www.conservation.org/Pages/default.aspx>)



Figure 4 - Amazon deforestation
Source – WWF NGO

The Brazilian Government commitment to face environmental issues, not authorizing any external actor to threaten its sovereignty using the environment as an excuse, is apparently settled by the Brazilian National Defense Strategy, adopted in 2008:

*[...] Brazil will be watchful to the unconditional reaffirmation of its sovereignty upon the Brazilian Amazon region. It will repeal, using actions of development and defense, any attempt of external imposition on its decisions regarding the preservation, development, and protection of the Amazon region. It will not allow organizations or individuals to serve as instruments for foreign interests – political or economic – willing to weaken the Brazilian sovereignty. It is Brazil that takes care of the Brazilian Amazon region, at the service of humankind and to its service.*²⁸

1.3.2 The effects inflicted by the Organized Crime

Drug and weapons trafficking are responsible for growing crime and violence in Brazil. In the main cities such as São Paulo, Recife, Salvador, Vitória, or Rio de Janeiro, those crimes

²⁸ See Brazilian National Defense Strategy, Art 10.

are linked to other criminal activities such as kidnappings and bank heists. Criminal groups are organized as a parallel power that challenges the authorities, corrupts the police force, and controls the population of many communities. Narcotic traffickers exploit Brazil's heavily transited and porous border crossings where Brazilian law enforcement agencies only have a minimal presence²⁹.

The organized crime has close relations with some sectors of dominant classes in public spheres. The criminal activity builds interfaces between the licit and the illicit. The need of organized crime to launder illegal revenue generates another need: creating a legal business. To maintain this business far from state's oversight, criminals corrupt cops, state agents, members of the judiciary. These acts naturally affect the National Security to a grand scale, with severe impacts on the social stability.



*Figure 5 - Criminals in a poor community (Favela) in Brazil
Source – Public domain*

1.3.3 The effects inflicted by the cyber crime

Approximately 58 percent of Brazilian population uses the internet. This is about 120 million people³⁰. It compares with 49 percent of both China and South Africa and 18 percent of Indians. At least 45 percent of all banking transactions in Brazil are digital. Brazil, with 130 machines per 100,000 adults, has a larger density of ATMs than the United Kingdom (127

²⁹ TAVARES, Rodrigo. Security in South America: The Role of States and Regional Organizations. First Forum Press, USA, 2014

³⁰ See world bank - <http://data.worldbank.org/indicator/IT.NET.USER.P2>

per 100,000), France (109 per 100,000), or Germany (116 per 100,000). Therefore, it is not surprising that the country is an important target for **cyber crimes**.

According to Robert Muggah and Nathan Thompson³¹,

[...] Brazil is at the epicenter of a global cyber crime wave. The country ranks second worldwide in online banking fraud and financial malware, and the problem is only getting worse. According to official sources, the number of cyber attacks within the country grew by 197 percent in 2014, and online banking fraud spiked by 40 percent this past year.



Figure 6 - Cybercrime in Brazil
Source – Foreign Affairs

1.3.4 The effects of the terrorist threat

Another threat to Brazilian security is the terrorist threat. This threat is not clearly felt by Brazilian population. That is because there is no terrorist attack in Brazilian territory since the 1980's. This low level of awareness hinders the country to deal effectively with the problem.

Ideological disputes around the definition of terrorism also have been contributing to above-mentioned difficulties. An example of these difficulties is that only in 2016 the crime of terrorism was included in the criminal law of the country.

³¹ See Foreign Affairs Magazine, September 17, 2015. Available in <https://www.foreignaffairs.com/articles/south-america/2015-09-17/brazils-cybercrime-problem>

Obviously, the terrorist threat is global and cannot be neglected. In addition, globalization imposes Brazil to take collective responsibilities in combating global terrorism. Besides, there are several reports of Brazilian and international intelligence agencies about the passage through the country of several people linked to international terrorist groups³².

Another concern of Brazilian authorities is the presence of terrorist groups in neighboring countries. Peru, Colombia, and Venezuela have terrorist and violent criminal groups. In 1991, approximately forty members of the Colombian FARC conducted a raid into Brazilian territory. They attacked a Brazilian Army detachment that was stationed in a semi-permanent camp on the bank of Traíra River, by the borderline between Brazil and Colombia. The Brazilian Army counterattacked; as a result, some of the members were eliminated, others imprisoned, and a good part of the stolen military material and equipment was recovered. Over the years the belief grew that the FARC could have active cells in Brazil for drug trafficking. The claim was confirmed in May 2010, when José Samuel Sánchez was apprehended in the Brazilian state of Amazonas. Sánchez, who goes by the aliases “Martín Ávila” or “Tatareto,” was a suspected drug trafficker who also assisted in the group’s logistics and financial planning. In the same period, a leading Brazilian newspaper³² interviewed a former FARC militant who claimed that the guerrilla operated within Brazilian territory since the 1990s and had been expanding its drug trafficking operations and increasing its links with Brazilian narco-traffickers³³.

³² See “Ex-Guerrilheiro Confirma Ligação das FARC com Traficantes Brasileiros” (O Estado de São Paulo, Newspaper. June 6th 2010).

³³ TAVARES, Rodrigo. Security in South America: The Role of States and Regional Organizations. First Forum Press, USA, 2014

2. THE MISSION OF BRAZILIAN ARMED FORCES AND THE NON-TRADITIONAL SECURITY THREATS

The Brazilian Armed Forces must be prepared to accomplish the purposes imposed by Brazilian society, according to the law and regulations. One of those missions is confronting the non-traditional threats. From now on, the efforts made by the Brazilian Armed Forces to deal with non-traditional security threats will be presented.

2.1 EFFORTS MADE BY THE BRAZILIAN ARMED FORCES TO DEAL WITH NON-TRADITIONAL SECURITY THREATS

To fully understand the employment of Brazilian Armed Forces against non-traditional threats, it is important to explain how Navy, Army, and Air Force are organized and which are their missions.

2.1.1 Components and mission

The Brazilian Armed Forces are comprised of Navy, Army, and Air Force. The three forces are parts of the Ministry of Defense, which guides, supervises and coordinates all the actions of the Armed Forces.

The Armed Forces are national, permanent and regular institutions, based on hierarchy and discipline. The President of the Republic is the Commander in Chief of the Armed Forces. Their mission is defending the homeland, the defense of the constitutional branches of power and, by order of any of these branches, the guard of law and order, with the aim of preserving state sovereignty and federal union.³⁴

According to law³⁵, the Brazilian Armed Forces have the following subsidiary powers:

The armed forces are responsible, among other pertinent activities, for

Subsidiary functions, preserving the exclusive competences of the law-enforcement forces, using preventive and repressive measures in border regions, both at sea and interior waters, regardless the ownership or destination, acting against transborder and environmental crimes, executing actions including:

I – patrolling;

³⁴ Federal Constitution of Brazil, Art 142

³⁵ Supplementary Law Nº 97 – 1999/06/10, Last amendment: Complementary Act Nº 136 – 2010/25/08, Sec, 15 and 16

II – control checks of individuals, ground vehicles, ships, and aircraft
*III – arrests in flagrant crime commission.*³⁶

Brazil has the largest active duty military force in South America – second in the Americas, only behind the United States of America. Brazil’s military has transformed from a strictly conventional force into a versatile force that has gathered much peacekeeping experience over the last decade, thus gaining, even more, respect from other militaries in the region³⁷.

The total effective of Brazilian Armed Forces is about 330.000 men and women. Among that total, about 65,000 personnel are from Navy; 200,000 compose the Army and about 70,000 troops are in Air Force Service.

2.1.1.1. Brazilian Navy

The Brazilian Navy is the oldest armed force operating in Brazil. It operates since the 18th Century in the defense of Brazilian territorial waters, both on the sea and inland waters.

Brazil has many maritime interests. The owner of the largest watershed on the planet, the country has 4,5 million square kilometers of territorial waters and a coastline 7,400 kilometers long.

Recently, the potential wealth of Brazilian sea won a new dimension with the discovery and exploitation of oil in deep waters, in the area known as “pre-salt.”

The Navy develop a comprehensive monitoring and control strategy for the protection of the coast of the country, as well as strengthen the knowledge about the marine environment.

The Brazilian Navy has one fleet, based in the city of Niterói, in Rio de Janeiro state. In addition to this fleet, the Navy has nine “Naval Districts”. These commands are grounded in the towns of Manaus (State of Amazonas, the larger and most significant state of Brazilian Amazon), Rio de Janeiro (State of Rio de Janeiro), Natal (State of Rio Grande do Norte), Salvador (State of Bahia), Ladário (State of Mato Grosso do Sul), Rio Grande (State of Rio Grande do Sul), Belem (State of Pará), Brasília (Federal District), and São Paulo (State of São Paulo).³⁸

³⁶ See Supplementary Law Nº 97 – 1999/06/10, Last amendment: Complementary Act Nº 136 – 2010/25/08, Sec, 15 and 16

³⁷ TAVARES, Rodrigo. Security in South America: The Role of States and Regional Organizations. First Forum Press, USA, 2014

³⁸ Command of Brazilian Navy – www.mar.mil.br

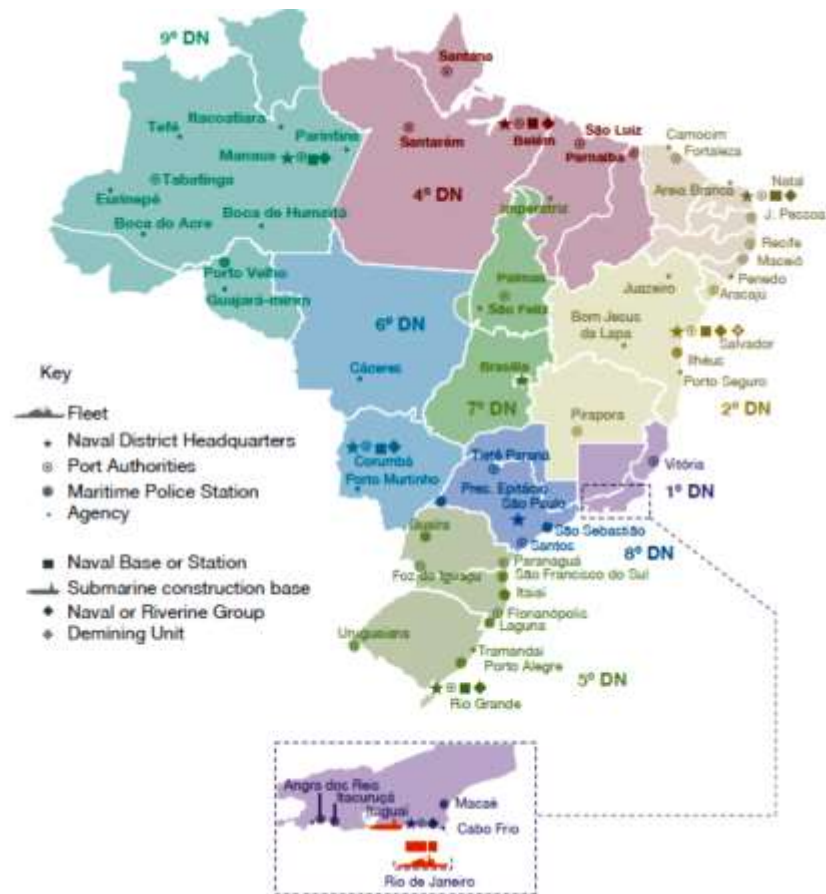


Figure 7 - Naval Districts
 Source – Ministry of Defense of Brazil

The Marine Corps are the landing force of the Navy. It is a proficient and volunteer military branch, which is in permanent readiness for employment. It is essential for the defense of naval and port facilities, as well as Ocean archipelagos and islands in Brazilian jurisdictional waters. The Marines are also necessary for controlling river banks in riverine operations and for conducting peacekeeping and humanitarian missions.

The Brazilian Navy has four basic tasks concerning Naval Power: deny the enemy use of the sea, control maritime areas, project power over land, and contribute to deterrence.³⁹

2.1.1.2 Brazilian Army

The Brazilian Army came to fulfill the will of the Brazilian people, to protect its sovereignty, even before of the country’s independence.

³⁹ Brazilian White Defense Papers

The Army is a permanent and regular institution based on hierarchy and discipline, under the supreme authority of the President of the Republic and is intended for the defense of the country, the guarantee of the three branches of state, and safeguarding the law, and order.

To accomplish their missions, the Army uses the land force, its instrument of action; that includes all elements of the institution with the capacity to act in the terrestrial environment of the full spectrum operations. For this, the Brazilian Army comprises around 200 thousand men and women and prepare the land forces, keeping themselves in a constant state of readiness.

The Brazilian Army currently comprises on 575 military organizations, deployed across the whole national territory.

The Land Force is composed of eight Regional (“Military Area”) Commands:

- Amazon Command (CMA);
- Northern Command (CMN)
- Western Command (CMO);
- Central Plateau Command (CMP);
- Southern Command (CMS);
- Eastern Command (CML);
- Southeastern Command (CMSE); and
- Northeastern Command (CMNE).



Figure 8 – Regional Commands
Source – Brazilian Army

The Regional, or “Military Area” Commands (CMilA), as presented in the image above, are composed of operational commands — the Army Divisions (DE) — and logistics and administrative commands — the “Military Regions” (RM). In total, the Land Force has seven Army Divisions and twelve Military Regions.

The Army Divisions include brigades and artillery units. The Army has twenty-seven brigades and four artillery units (three in the Southern Command and one in the Eastern Command). The brigades can be subordinated to the Army Divisions or are directly subject to the Regional (“Military Area”) Commands. The basic combat module is the brigade, which may be one of the several types, depending on the nature of its mission, the employed material, or the operational area to which it is was designated.

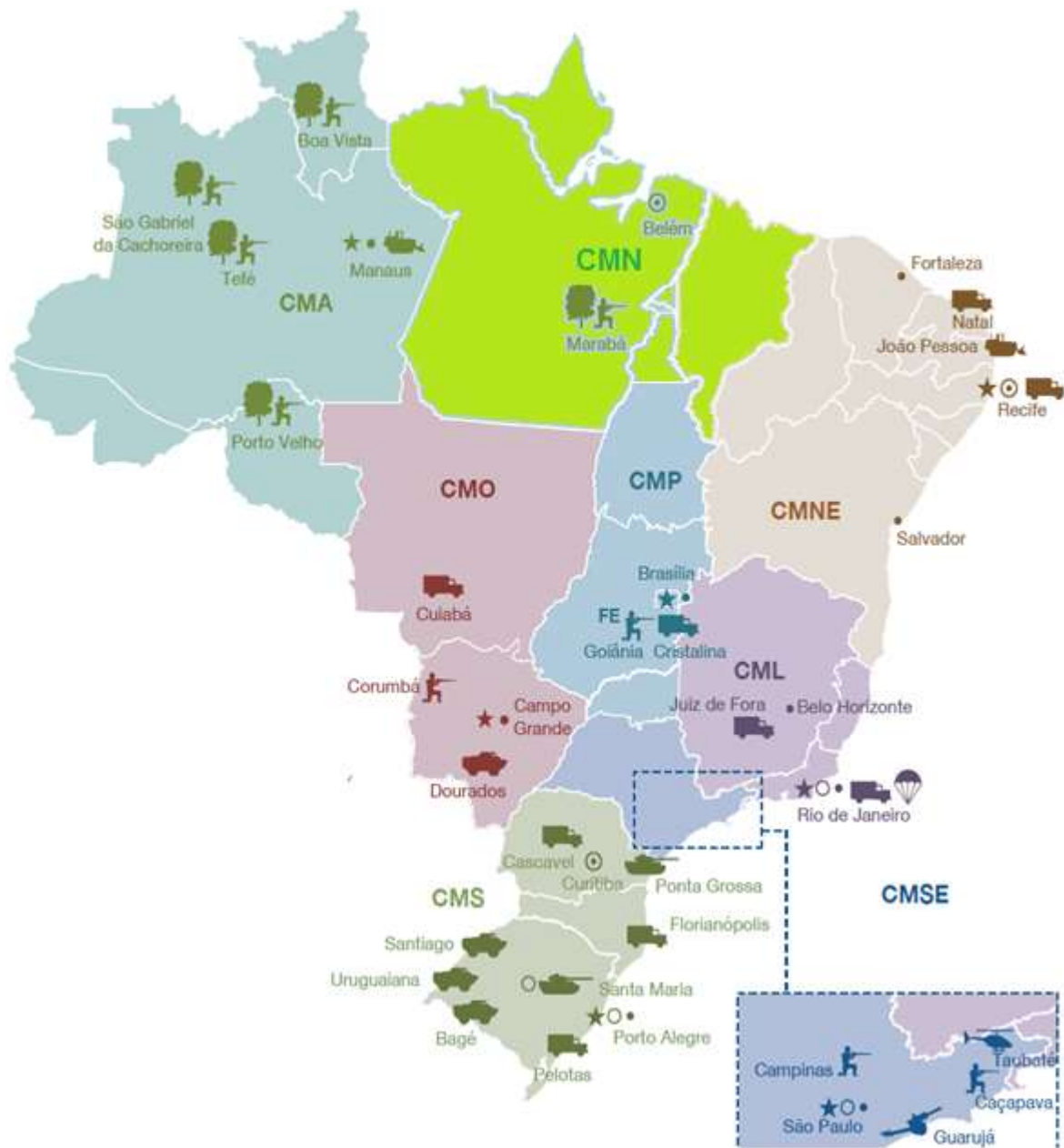


Figure 9 - Deployment of Brigades
 Source – Brazilian Army

2.1.1.3 Brazilian Air Force

The Brazilian Air Force has its mission focused on protecting the country, preventing the use of Brazilian airspace for hostile acts or actions against the national interest. To be prepared to accomplish those missions, the Brazilian Air Force has an effective capacity of surveillance, capability of control and protecting of airspace, and means of detection, interception, and destruction.

The mission of defending and control the Brazilian Airspace is a huge challenge. There are 8.5 million square kilometers of area, plus 4,5 million square kilometers of the territorial waters of Brazilian Exclusive Economic Zone. For surveilling this dimension, the Brazilian Air Force divides its structure by types of aviation: fighter aviation, maritime patrol, reconnaissance and transport, and helicopters, distributed by 19 air bases in strategic regions of Brazil.

The Air Force, within the national demands, as supplementary roles⁴⁰, has the following demands: participates in stimulus activities of the defense industry, to aid crackdown transnational and environmental crimes, provide security for airspace navigation; and operate the National Air Mail.

Air Force is also structured in operational commands called “Air Forces.” They are in charge of preparing and employing aircraft of different kinds and in diverse operational environments. They are listed bellow:

- First Air Force (I FAE) — in charge of training pilots in fighter, helicopter, transport, reconnaissance, and patrol aviation;
- Second Air Force (II FAE) — employs its aircraft in air tactical operations, independently or jointly with the other Branches of Brazilian Armed Forces and in search and rescue missions, covering the Brazilian international responsibility in this matter;
- Third Air Force (III FAE) — uses strategic and tactical fighters as well as reconnaissance and aerial defense aircraft; and
- Fifth Air Force (V FAE) — is responsible for transport, flight refueling, parachute launching, and support of Air Force units, as well as for supporting Army units on the ground.

2.1.2 Primary Methods of Employment

The President of the Republic, as commander-in-chief of the Armed Forces, assisted by the Minister of Defense, and by the Defense Council, is responsible for the employment of military resources and for the strategic direction of the Armed Forces, as provided in the Article 2 of the Complementary Law Nr 97 of June 9th, 1999.

The employment of Brazilian Armed Forces against trans-border crimes and environmental crimes is planned in the Strategic Border Plan. The last version of this plan was

⁴⁰ Complementary Law 97/1999

signed by the President of Republic on June 8th, 2011. Among the objectives of the Plan, the integration of public security and custom control agencies is highlighted below:

Art 3º - The Strategic Plan of Borders will have as objectives:

*I – The integration of Public Security agencies, Custom control agencies, and **Armed Forces** with the action of States and Municipalities situated in the borderland.⁴¹*

The Brazilian National Strategy of Defense has some guidelines. Among them, we can highlight some, for the purpose of this research:

- Brazil must develop the ability to monitor and control the Brazilian Air Space, the territory and the jurisdictional areas;
- Brazil shall enhance the presence of Army, Navy, and Air Force units in the borderline areas;
- The Amazon Region shall be prioritized;
- Brazilian Armed Forces are to prepare troops to fulfill law and order enforcement missions, under the terms of the Federal Constitution.

At this point of this research, it is clear that the law regulates the Brazilian Armed Forces employment against trans-border and environmental crimes. It is also clear that this employment is planned at the high level of Federal Government, according to Strategic Border Plan and National Defense Strategy.

To implement those measures, in order to accomplish its constitutional and legal missions, the Brazilian Army employs its Units by the vast borderline region of the country (See Figure 5). Since the city of Pelotas, in the far south, until the city of Belém, in the up north, the Army has twelve Brigades inside the legal border area (an extension of almost 17,000kilometers by 150 Km of wide – approximately 2,5 million Km²). That means the Army has approximately 45,000 troops inside the borderland.

The employment of Brazilian Armed Forces in this kind of mission has an important feature: it is an interagency operation. Interagency operations occur in an environment

⁴¹ Strategic Border Plan. Brazil. http://www.planalto.gov.br/ccivil_03/_Ato2011-2014/2011/Decreto/D7496.htm

characterized by multifunctionality of actors (agencies), by the complexity existing in the relations, as well the mutual dependence.⁴²

There are several governmental agencies working in the border area of Brazil. One can mention Federal Police, Militar Police⁴³, Federal Revenue Service, Brazilian Institute of Environment, Federal Highway Police, Brazilian Intelligence Agency, National Foundation of Indians, Health Surveillance, amongst others. All these agencies have their own responsibilities, priorities, means, budgets, and professional cultures.

The interagency environment creates several challenges for the employment of the armed forces, once requires from military commanders the ability to mediate conflicts, create consensus, coordinate efforts and forces from all the actors involved.

⁴² Ministry of Defense. Field Manual MD33-M-12 – Operções interagências (Interagency operations). Brasília. Brazil. 2012.

⁴³ The Militar Police, in Brazil, is not subordinated to the Armed Forces. It is directly subordinated to the states – Author's note.

2.1.2.1 The *Ágata* Operations

Since 2011, the capacities above mentioned are being tested. The actions of Armed Forces in the borderland area were intensified by the carrying out of the ***Ágata Operations***⁴⁴. These operations have been conducted in partnership with agencies subordinated to twelve Ministries of the Federal Government. They are joint activities conducted by the Brazilian Armed Forces, aiming to fight transnational and environmental crimes, in coordination with other federal and state agencies.



Figure 10 - Ágata Operations
Source – Brazilian Agency of Intelligence (ABIN)

The operations have been annually centrally planned by the Ministry of Defense and executed in a decentralized by the Armed Forces. They have been performed in predetermined periods; the neighboring countries are previously informed and invited to assist Brazilian efforts, by operating on their side of the borderline or sending observers to the Brazilian side.

These operations include surveillance and monitoring of land and airspace, and control of the rivers and roads that enter the Brazilian territory from those neighboring countries.

Up to early 2016, ten *Ágata* Operations launched, in different areas of Brazilian border.

⁴⁴ Brazil. Ministry of Defense. *Ágata Operations*. See <http://www.defesa.gov.br/exercicios-e-operacoes/operacoes-conjuntas-1/operacao-agata>

The Operation *Ágata I* took place in August 2011, in the same the year when the Strategic Plan of Borders was issued. The Brazilian Armed Forces were employed in the state of Amazonas, in the Amazon Region, more specifically in the area of the Tabatinga City, by the border with Colombia and Peru. The operation used thirty-five aircraft and 3,500 troops from Army, Air Force, and Navy.⁴⁵



Figure 11 - Destruction of an illegal airfield during Agata Operation 1
Source – Ministry of Defense

The second edition of Operation *Ágata* was conducted in the south and midwest borders of Brazil. It was launched from 12 to 16 September 2011, with the main objectives of checking aircraft coming from abroad, the location of the illegal airfields, and the operation of checkpoints.

Also in 2011, the third edition of the Operation *Ágata* was triggered, covering more than 6,000 Km of the borderline area, from the state of *Mato Grosso do Sul* to Tabatinga - Amazonas. The operation covered the borders with Paraguay, Bolivia, and Peru. The operation's goals were still the same of the previous editions of the Operation.

According to the Ministry of Defense, during the operations conducted in 2011, there have been arrests of about 80 vehicles, including motorcycles and trucks; 465kg of pesticides; 332 kg of marijuana and 20kg of cocaine; more than 60 weapons; eight tons of explosives and about one million reais in cash.

⁴⁵ Source – Ministry of Defense of Brazil - <http://www.defesa.gov.br/index.php/noticias/110-11082011-defesa-forcas-armadas-desencadeiam-operacao-agata>

Another effect of that three early *Ágata* Operations was the enhancement of the presence of the state in the borderland. During the operations, the Armed Forces took the opportunity to act in support of local populations. Health actions, using Armed Force's resources, were carried out during the whole operations.

The *Ágata Operation 4* was held in 2012, from 2nd to 17th May, in the northern border area of Brazil, by the territorial limits with Venezuela, Guyana, Suriname and French Guyana, totaling a length of about five thousand kilometers. On that occasion, several federal agencies participated with the Brazilian Armed Forces: the Federal Revenue Service, the Brazilian Institute of Environment, the National Department of Mineral Production, the National Aviation Agency, and the National Foundation of Indians, only to mention some of them. Approximately 8,500 troops, 65 vehicles, 11 ships, 8 helicopters, and 14 aircraft were employed.

This equipment were employed to perform actions of interdiction of airstrips, clandestine landings, and illegal mining camps; riverine patrols and searches; checkpoint of roads; patrolling; aviation fuel control at airports and airfields in the area of operations; civic-social actions in needy communities; specialized surveillance; search of people, vessels, aircraft and facilities; seizure and interception of suspicious aircraft.

During the *Ágata 4*, 235 ships were seized, two airstrips were destroyed, five illegal mining camps were interdicted, and 33 Kg of cocaine were seized.⁴⁶



Figure 12 - The Vice President of Brazil greets an Indian Chief during the Operation *Ágata 4*
Source – A *Crítica* Newspaper⁴⁷

⁴⁶ Defesanet website <http://www.defesanet.com.br/fronteiras/noticia/5991/AGATA-4---Balanco-da-Operacao>

⁴⁷ A *crítica* Newspaper http://acritica.uol.com.br/amazonia/Cacique-vice-presidente-Brasil-operacao-Agata-Manaus-Amazonas-Amazonia_0_702529747.html

In August 2012, The Operation *Ágata 5* was conducted by the Armed Forces, in coordination with public agencies and institutions. Seventeen thousand personnel from the three services and officials from several governmental agencies were employed. The area of operations was the southeast borderland area of the country⁴⁸. In that period, according to the results released by the Brazilian government, six tons of illegal drugs were seized, there were 191,868 arrests, surveys, and inspections; and 148 searches were conducted in airports, and aircraft.



Figure 13 - Riverine patrol during operation Ágata 5
Source – Ministry of Defense

Also during 2012, the Operation *Ágata 6* was launched. 7,500 troops were sent to the country borders with Peru and Bolivia. The operation mobilized a significant military apparatus. In total, about 2 remotely piloted aircraft, 6 A-29 “Supertucano” aircraft, 4 F-5 fighters, 10 helicopters, 14 Navy speed boats, 40 Army ships, 7 patrol boats, 2 hospital ships, in addition to several tanks and armored vehicles were employed. Operation *Ágata 6* also was backed by 10 ministries and 20 governmental agencies that elevated the total strength to about 8,000 officials. After two weeks, 3.7 tons of drugs, 67 vehicles, and 201 vessels were seized.

⁴⁸ CMO and CMS area – See figure 8



Figure 14 – Remotely Piloted Aircraft RQ-450 Hermes - Brazilian Air Force - during Operation *Ágata 6*
Source – Ministry of Defense

The first operation that encompassed all Brazilian border area at the same time was the Operation *Ágata 7*, in 2013. All 16,866 Km of Brazilian borderline were covered. This was the largest operation so far unleashed. More than thirty thousand troops were engaged. The Navy employed river patrol ships, UH-12 helicopters, hospital ships, and barges. The Battalion of Riverine Operations, from the Navy's Marine Corps, also participated. The Brazilian Army participated with troops from the Amazon Military Command (CMA), Western Military Command (CMO) and Southern Military Command (CMS)⁴⁹. The Air Force deployed its post of command in Brasilia, in the Air Operations Command (COMGAR).

After 19 days, the results of the Operation *Ágata 7* were considered pretty good by the Ministry of Defense. A total of 25.3 tons of marijuana and 657 Kg of cocaine, crack and hashish were seized. Almost five thousand cubic meters of illegal timbers were also seized. It is estimated that the increased surveillance on the Brazilian fuel smuggling to Peru caused the abandonment of the refining of 30 tons of cocaine in that country. it occurred because the Peruvian drug traffickers normally use smuggled fuel from Brazil to supply their refining.

⁴⁹ See Figure 8



Figure 15 - Army checkpoint during Operation Ágata 7
Source – Ministry of Defense

After the success of the broad *Ágata 7*, the Operation *Ágata 8*, launched in 2014, encompassed, once more, the full length of Brazilian borders. As occurred in the Operation *Ágata 7*, around thirty thousand troops, from the three branches, were employed. During the action, the military and the officials from several governmental agencies conducted inspections of 122,428 vehicles and 7,776 boats. The military forces present seized 206 boats, 126 vehicles, and 28 weapons. Forty ton of illegal drugs were confiscated.

The Operation *Ágata 9*, in 2015, focused its actions on the states of Paraná, Mato Grosso do Sul and Mato Grosso; by the border with Paraguay and Bolivia. The Armed Forces conducted actions in 166 municipalities, involving 5,310 personnel from Navy, Army, and Air Force; and 255 officials of federal and local agencies. In total, 46 federal, State and local institutions participated in the operation.

Still in 2015, another Operation *Ágata* took place, in its 10th edition. This Operation happened simultaneously in the areas of the Amazon Military Command (CMA), headquartered in Manaus, and Northern Military Command (CMN), located in Belém. In all, about nine thousand troops participated in the operation, besides officials of 33 government agencies. Among the objectives of the operation were curbing environmental crime, illegal mining camps, smuggling, and embezzlement; disable clandestine airstrips; and suppress drug trafficking and predatory fishing.

As it can be seen in the operations above described, at the tactical level, when acting against trans-border crimes in the Operations *Ágata*, the Army uses tactics, techniques, and procedures such as patrolling, search of people, and checkpoints. The Navy usually conducts riverine operations, including patrols, checkpoints, and inspections. The Air Force is responsible for the aerial control and for destroying clandestine airstrips. The presence of several different agencies is an important feature of this kind of operation.

The Operations *Ágata* are the most important effort made by the Ministry of Defense and Brazilian Armed Forces to implement effective measures against transnational and environmental crimes within Brazilian territory. They also reinforce the presence of the state and the sovereignty of the country, as well as the links between the neighboring countries, engaged in tackling crimes and illegal activities along their common borders.

Operations *Ágata* – Employment of military personnel

Operation	AGATA	AGATA	AGATA	AGATA	AGATA	AGATA	AGATA	AGATA	AGATA	AGATA
	1	2	3	4	5	6	7	8	9	10
Quantity of military personnel	3,044	8,705	7,146	8,494	19,500	7,500	31,263	30,000	5,565	9,000

*Table 1 - Operations Agata
Source – Ministry of Defense*

2.2 LESSONS LEARNT

Ten editions of Operations *Ágata*, from 2011 to 2015, have brought a series of tactical, operational and strategic experiences to be learnt.

At the tactical level, the procedures and techniques used by the troops were tested. The huge extent of the Brazilian borders, largely through the dense Amazon rainforest, where there are no physical boundaries between countries, hinders the performance of the armed forces and other federal agencies. This challenge required the troops to enhance the intelligence effort.

2.2.1 Intelligence

There were many intelligence agencies acting amongst several federal agencies that operated in the Brazilian borderland. Those agencies were organized within the Brazilian System of Intelligence (SISBIN) under the control of the Brazilian Intelligence Agency (ABIN).

Thus, the improvement of the intelligence coordination, especially when there are so many different agencies working in the same theater of operations, is a huge challenge and a lesson that must be learnt.

The intelligence efforts and consequent results must be more effective during the operations: it highlights the need for modern equipment and means of search to be acquired and employed. Therefore, new equipment, as modern telecommunication radios, radars, and remotely piloted aircraft are to be integrated into future operations.

2.2.2 Command and Control

At this point, it is interesting to reinforce that the interagency work is core to this kind of operation. The armed forces and the different agencies, when working in the borderland area, have different organizational cultures, different missions, and different resources. This situation creates a complex environment, where the common objective (fight against transnational and environmental crimes) must be the common point of understanding.

In order to facilitate this coordination, as a lesson learnt, the Offices of integrated border management (GGI-F⁵⁰) were created. These structures have gathered representatives of the armed forces, police and agencies present in the area. It represented the specific body where the issues involving the necessary coordination were discussed, and many problems were solved.

2.2.3 Readiness and employment

The main mission of the Brazilian Armed Forces is still to be prepared to defend the homeland against all kind of threats. Therefore, they need to obtain full capabilities on how to fight against traditional and non-traditional threats. Of course, the strategy, tactics, techniques and procedures to accomplish each type of mission are completely different. These differences can generate challenging problems. For example, one commander of an Army Unity, in a Brazilian border, could emphasize the training focusing Operations *Ágata*, preparing troops on how to be employed against transborder and environmental crimes; in turn, another commander could emphasize the training against traditional threats, executing maneuvers and war games, instead of training checkpoints, personal inspections, etc.

In order to balance that different needs, the Brazilian Army Land Operations Command (COTER)⁵¹, has created a detailed plan of training for all unities. In this program, all kinds of operations must be trained. Thus, the troops can receive adequate instruction for all types of operations

2.2.4 Joint Operations

The joint employment of the three Armed Forces in a real situation during the *Ágata* Operations is another source of knowledge and learning. In the logistic field, for example, much was learnt. During the operation *Ágata* 4, in 2012, for the first time, the new Brazilian

⁵⁰ In Portuguese – Gabinete de Gestão Integrada de Fronteiras

⁵¹ See <http://www.coter.eb.mil.br>

doctrine regarding joint operations was tested⁵². Thus, for the first time, a Brazilian Logistic Command of the Operations Area (CLAO)⁵³ was deployed. This structure was tested and, at the subsequent operations, its organization and routines were developed. Besides, There was the opportunity to test the doctrine in an actual situation, which contributed to the development and improvement of techniques, tactics, and procedures.

⁵² FREIRE, Luiz; GOMES, Kesia and OLIVEIRA, Natalia. Operação Ágata: lições aprendidas com o emprego do comando logístico da área de operações. Seminar. UNIFA. Rio de Janeiro. Brazil.

⁵³ Portuguese acronym – CLAO – Comando Logístico da Área de Operações

3. NEW CHALLENGES AND WAYS FORWARD

The political, economic, and military challenges concerning transnational and environmental threats will be presented in this chapter. After considering the challenges faced by the Brazilian Armed Forces in their employment against those nontraditional threats and related crimes, some existing and possible alternatives to face those difficulties will be shown, as ways forward.

3.1 POLITICAL CHALLENGES

The Constitution of Brazil defines clearly the Brazilian Armed Forces mission, as it can be seen in this research previously. The Brazilian supreme law represents the supreme will of the people.

In Brazil, as every developed society, the military power is controlled by the civilian power. Thus, the last word about the missions that will be accomplished by Brazilian military is said by the President of the Republic. However, the will of the president must represent the will of the people and must be subordinated to the existence of laws that support his or her decisions.



*Figure 16 - The President of Brazil being welcomed by military in ceremony in the Capital of the Republic
Source – Ministry of Defense*

In the case of the employment of Brazilian Armed Forces against transnational and environmental crimes, all the aspects above mentioned are respected. All the necessary phases to launch those actions, from the existence of law, through the activities of the civilian and military bodies of the chain of command, to the action of the troops respect the rule of law rigorously.

Since the action of Armed Forces has a solid legal provision, it is important to consider another aspect of this employment, from the point of view of the political challenges. It is the financial problem.

Brazil is a developing country, with many aspects that require attention from the federal government. Health, education, public safety, housing, economic development, are some of the urgent problems still unresolved in the country. All of these areas require attention and demand huge sums of financial resources from the Federal Treasury. Obviously, to dispute resources in this kind of environment is a huge challenge for the Ministry of Defense. Above all, it is challenging when one consider that the combat of transnational and environmental crimes is a permanent activity and will continue to require budget indefinitely.

This permanence in time, this feature of blurring of the deadline for the completion of the operations causes the emergence of another challenge. The combat against transnational and environmental crimes must be a state policy, instead of governmental policy. Thereby, when the ruling party changes, the policy must remain unchanged.

The great quantity of different agencies involved in the work in the borderland of Brazil means that several Ministries have subordinated agencies working together. At the tactical level, the Offices of integrated border management (GGI-F⁵⁴) were created, as already explored. However, there is no coordination instance specifically dealing to integrate efforts of those agencies at the political level. Obviously, this is another great challenge that needs to be surpassed.

3.2 ECONOMIC CHALLENGES

The construction of the budget of the Ministry of Defense is made in three phases, in a long process of politic dispute among the main areas of the federal administration.

⁵⁴ See page 34

When compared with other fields of federal administration, the Defense sector seems to be well attended, after all, has the 4th biggest budget in Federal Government, when compared to the other ministries. However, it represents only 5,16% of the total budget of the country.

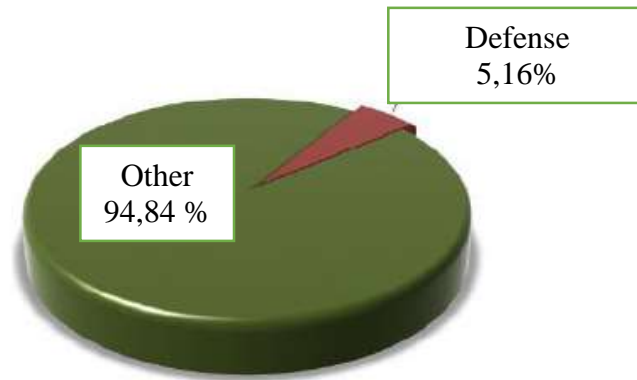


Figure 17 - Budget of Brazil
Source – Cardoso, Renata – 2015

More important, amongst various items of expenditure (personnel and social security, maintenance, investment, and debt payment), spending on personnel and social security represents the largest amount.

The following chart shows that present investments are far below the level required to support the strategic projects of the Ministry of Defense.

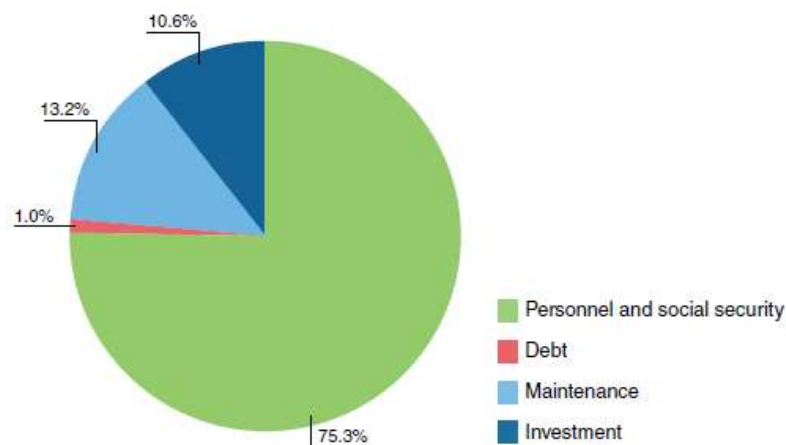


Figure 18 – Ministry of Defense - Types of expense
Source – Defense White Papers

Thus, in a developing country, with several social demands yet to be met, is not easy to the authorities encharged of distributing budgetary resources, meet the needs of the Ministry of Defense in its fulness.

3.3 MILITARY CHALLENGES

The military challenges to accomplish the mission of fight against transborder and environmental crimes are multiple and diverse.

One can mention military training. The employment of soldiers in operations inside their own country, acting among nationals and civilians, under the rule of common law, requires a very specific training. This training, for several times, demands from the soldiers a completely different behavior that they would have in a conventional combat operation. Thus, the same soldier must be prepared to shoot and kill an enemy in combat and avoid to shoot, arresting instead, a criminal while acting against crime.

Command and Control must also be quoted. The huge extension of Brazilian borderline, its topography, and vegetation determines that the operations against transborder and environmental crimes must be conducted with a great level of decentralization. Therefore, lieutenants and sergeants must exercise their leadership and act often hundreds of kilometers far from their commanders. In the other hand, commanders have several difficulties in exercising full command and control, due to the distance and the decentralization of the operations.

The employment of armed forces in this kind of operations means that several special items of supply become necessary. One can cite, for example, less-lethal weapons and ammunition, traffic control equipment, special equipment to search vehicle and people amongst others. These items of supply are not common in regular army activities. Thus, to acquire, distribute, maintain, and operate such equipment becomes a major logistical challenge.

The interagency feature of these operations adds logistic questions. The communications equipment of the governmental agencies does not usually have the same features necessary to contact armed forces equipment, and vice-versa.

At this point, it is important to stress that the interagency environment is one of the largest military challenges of this kind of operation. Each organization carries out its own culture, philosophy, goals, practices and skills. This diversity is the strength of the interagency process, providing a sum of knowledge in the pursuit of a common goal if it is managed accordingly. But the diversity can also create several challenges for the accomplishment of the mission.

Military personnel is trained to command and coordinate actions inside an environment of absolute respect to hierarchy and discipline. When working with other agencies, with different organizational culture, military commanders must adapt themselves. There is no hierarchy structure, according to Brazilian law, in the relationship between the armed forces and the agencies that are subordinated to other ministries. The pursuit of coordination and cooperation must be seen as a means to reach the desired and common objectives. Therefore, collaboration, consensus, the unity of effort, and integration are key ideas of interagency operations.

3.4 WAYS FORWARD

After checking the challenges faced by the Brazilian Armed Forces in its employment against transnational and environmental crimes, we will see some existing and possible alternatives to face those difficulties.

3.4.1 Border Monitoring Integrated System (SISFRON)

It was demonstrated that the effective control of such an extensive and permeable border area is very difficult. The federal agencies that have the primary responsibility to fight against crime, like Federal Police, Internal Revenue Service, among others, unfortunately, do not have sufficient structure to perform their jobs. The Brazilian Armed Forces face the same problem.

In order to reinforce the readiness and the effectiveness of the Army in monitoring and controlling the border area, the Army launched the Border Monitoring Integrated System (SISFRON).

SISFRON is a decision-making and operational deployment support system whose aim to strengthen the presence and the capability of acting of State along 16,686 Km long border line.

The SISFRON was designed by the Brazilian Army Command, given the orientation of the National Defense Strategy regarding the organization of the Armed Forces under the aegis of the Trinomial monitoring/control, mobility, and presence. The system emphasizes the densification of units of the Armed Forces in the border areas.

The system has as aim to collect, store, organize, process and distribute necessary data for the Army and federal agencies activities in the borderland of the country.

It is comprised, among other means, of optical and optronic sensors, radars, drone systems, aerostats, infoways, satellite communications, command facilities, decision-making

support software, and Army operational means of deployment, both in external defense, together with other Armed Forces, and in support to Public Security Agencies in interagency operations against transborder crimes.



Figure 19 – SISFRON

The SISFRON is currently in the early stages of deployment, with the development of the pilot project in the 4th Mechanized Cavalry Brigade taking place, in the area of the West Military Command (CMO)⁵⁵. Up to 2015, only individual, optical and communications equipment, and vehicles were received. The system is not yet integrated with similar systems of Brazil's Navy and Air Force.

The project was created in 2009, and its development began in 2012 with the pilot project. Therefore, it has about four years of existence. The forecast for complete activation is 2022. Although the period of existence of the project is the very short, its implementation has been very positive, with clear results during routine operations and in the participations in Operations *Ágata*.

Another important aspect that is interesting to stress is that the SISFRON encourages the demand for defense products. The employment of these products may be military or civilian; consequently, it ensures the generation of jobs as well as diversifies the exports and increases the trade, collaborating to the development of the national industry of defense.

⁵⁵ See page 23

Thus, the SISFRON is an excellent program and answer to many military challenges regarding the employment of military forces and governmental agencies within the border area of Brazil

3.4.2 Creating an instance of interagency coordination at the political/strategic level

As one might see previously, the coordination of several agencies, subordinated to many ministries, is complicated. Although tactical-level Offices of integrated border management (GGI-F)⁵⁶ have already been created, in the political and strategic level there is no formal instance of coordination. Thus, each command at the operational level creates, for each operation, its own instance of coordination, inviting the agencies involved to participate.

It seems clear that a permanent body of coordination, at ministerial-level, would be very useful. Several distinct interests in carrying out the responsibilities of the different agencies could be lined up at the highest level, avoiding disputes and disagreements in the operational and tactical level.

The Chinese National Stability Command Authority⁵⁷ could be an example for this kind of instance of coordination.

3.4.3 Creating an Instruction Center of Interagency Operations

After this research, and considering my experience in this kind of operations, it is reasonable to believe that it would be very useful to create a specific structure dedicated to the study, training, and development of techniques, tactics and procedures of interagency operations. This structure could be a joint center, with military personnel from Navy, Army, and Air Force. It would be important for this center to receive officers from every agency that participate in interagency operations in the borderland.

This center could be responsible for the preparation of all troops and agencies employed in the operations against transnational and environmental crimes. In a round-robin system, it could prepare the troops, ensuring them as fully capable of the employment on the ground.

⁵⁶ See page 36

⁵⁷ As was presented in lecture gave by Professor Colonel Zhang Zhe to 36th Defense and Strategic Course/CDS/NDU Mai 5th 2016 – Author's note

3.4.4 Ensure the necessary flow of budgetary resources

The economic resources to support the Brazilian Armed Forces in its mission against transnational and environmental crimes are not enough to support all demands; it was demonstrated.

A possible solution in order to guarantee the necessary budget flow is creating an inter-ministerial fund, specific for interagency and joint operations in the borderland.

Conclusion

This research aimed to study the Brazilian Armed Forces employment against transnational and environmental crimes, both non-traditional threats. Specifically, how the Brazilian military forces make their preparation, how they are employed, what are the most significant challenges and difficulties. Moreover, the objective of this research was point out ways forward and new solutions to manage this kind of operation.

In order to achieve those objectives, this work started showing how is the situation of the non-traditional security threats in South America and Brazil. The most important problems and challenges regarding this type of threats were presented, placing the reader regarding the current situation of that continent.

After studying the main aspects of security issues in South America, the study about Brazil was deepened. The main features of transnational and environmental crimes were analyzed. Subsequently, the Brazilian Armed Forces and its forms of employment were analyzed. The primary methods of employment and lessons learnt were focused.

Finally, the emphasis of this research was to the new political, economic and military challenges, as well as ways forward.

As a conclusion, it is important to stress that non-traditional security threats are the most important security challenges that face the countries of South America. Among those, transnational and environmental crimes are special concerns, especially in Brazil.

The research proved that the employment of Brazilian Armed Forces in the fight against transnational and environmental crimes brought important results, experiences, and lessons.

First of all, this kind of mission is imposed by Brazilian law, which regulates the actions clearly, giving the necessary legal support for the operations. The Operations *Ágata*, as a typical operation oriented to non-traditional threats, was studied. These operations are being planned centrally by the Ministry of Defense and executed in a decentralized manner by the Brazilian Armed Forces. They are performed in predetermined periods; the neighbor countries are previously informed and invited to participate in the activities, operating on their side of the border or sending observers to the Brazilian side. These operations include surveillance and monitoring of land and airspace, and control of the rivers and roads that demand to the Brazilian territory.

It was also explored that several governmental agencies work within the borderland of Brazil. The interagency environment creates several challenges for the employment of the

Armed Forces, which requires from military commanders the ability to mediate conflicts, create consensus and coordinate forces amongst all actors involved.

Thus, the Operations *Ágata* are very good opportunities for the Brazilian Armed Forces to practice joint operations in an interagency environment. This kind of experience develops skills that will be useful for all the types of operations, from traditional to non-traditional security threats.

The challenges to accomplish the mission are huge. They come from political, economic and military fields. As a developing country, Brazil has several aspects that dispute attention from the federal government. When health, education, and other very important issues rise, is not easy to convince politicians that a peaceful country like Brazil must invest in defense matters.

On the other hand, there are many military challenges. Training, Command and Control, and Logistics were the most important aspects studied in this research.

There are viable alternatives to address the challenges presented in this work. They include systemic solutions, like the Border Monitoring Integrated System (SISFRON), management solutions, the creation of instances of coordination and instruction, and financial solutions, ensuring the necessary flow of budgetary resources.

This work was based on extensive bibliographical research, held in the library of National Defense University/College of Defense Studies – Changping – Beijing – China and open sources, like many websites, especially from Brazilian Ministry of Defense, Brazilian Navy, Army and Air Force.

The 21st Century is plenty of security challenges for all countries. The mission of the ARMED forces all around the world is to ensure the safety of its own people. In the case of Brazil, as hereby analyzed, besides to the normal duties of protection against traditional threats, the importance of the protection against non-traditional threats has been rising day by day.

As a developing country, Brazil has Armed Forces adjusted to its size, importance, economic capacity, military tradition and foreign policy. They are not superior to what is allowed by the capacity of the country. But they cannot be smaller than what their mission requires. This research demonstrated that, regarding its mission of fight against transnational and environmental crimes, Brazilian Armed Forces are working according to their capacities. Still, there are several aspects to be improved and challenges to be surpassed.

In conclusion, the modern battlefield requires military forces capable of conducting operations in the full spectrum of conflicts. They must be able to combine attitudes, simultaneously or successively, in offensive or defensive operations, stability operations or giving support to governmental agencies during crises or conflicts. All these actions can occur in an interagency or multinational environment.

The Brazilian Armed Forces, combating transnational and environmental crimes, in addition to the fulfillment of the remaining tasks lawfully imposed, prepares themselves to fight the 21st Century's battle. And the war of the 21st Century is being waged among people, in an environment with several governmental and non-governmental agencies, often against a non-state enemy.

All these features are present in the operations carried out by Brazilian Armed Forces in the borderland areas of the homeland.

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