



*The 20<sup>th</sup> International Scientific Conference*  
**“DEFENSE RESOURCES MANAGEMENT  
IN THE 21<sup>st</sup> CENTURY”**  
Braşov, October 30<sup>th</sup>-31<sup>st</sup> 2025



## **CAPABILITIES-BASED PLANNING IN MILITARY LOGISTICS: COLOMBIAN MILITARY FORCES CASE**

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**Abstract:** *In the contemporary global security landscape, armed forces must navigate increasingly complex and dynamic challenges. Capabilities-Based Planning (CBP) has emerged as a strategic approach to defense planning, emphasizing the development of versatile capabilities to meet a wide range of operational scenarios rather than focusing solely on specific threats. This paper explores the implementation of CBP in different national contexts, with a focus on NATO and Colombia, highlighting the benefits and challenges of this approach.*

*NATO has been a pioneer in adopting CBP, promoting interoperability and resource optimization among its member states. This approach allows NATO to maintain readiness and cohesion across diverse scenarios, enhancing its collective defense capabilities. In contrast, Colombia's experience with CBP underscores the adaptability of the model in resource-constrained environments. Despite logistical and infrastructural challenges, Colombia has successfully implemented CBP as part of its transformation and future of the Public Force program, prioritizing critical capabilities and optimizing resource use to address emerging threats.*

**Key words:** *Capabilities, Planning, Defense, Transformation, Strategy, Logistics, Interoperability, Sovereignty, Evaluation, Security.*

### **Introduction**

In today's complex global security environment, armed forces face increasingly diverse and dynamic challenges. The need to rapidly adapt to new threats and operational scenarios has led many nations to adopt capabilities-based planning (CBP) as a strategic approach to defense planning. This model focuses on identifying and developing the necessary capabilities to meet strategic objectives, rather than simply responding to specific threats.

The North Atlantic Treaty Organization (NATO) has been a pioneer in implementing CBP, promoting a standardized approach among its member states. This approach allows NATO to coordinate and optimize its collective resources, ensuring that allied forces can operate jointly and effectively across a variety of scenarios. According to the document “Analytic Architecture for Capabilities-Based Planning, Mission-System Analysis, and Transformation”, the use of appropriate analytical tools allows for the adaptation of analytical material for different audiences and occasions, which is crucial in collective defense organizations like NATO, where time constraints can significantly impact decision-making processes (Davis, 2002).

However, the application of CBP is not limited to NATO countries. Global partners, who often possess varied and difficult to standardize military capabilities, are also adopting this model to improve their interoperability and operational effectiveness. As noted in the document "Military Capabilities and Strategic Planning Conundrum" although there are differences in approaches to the



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concept of capability among countries, the outcome of each planning process has not hindered operations in various theaters (Correia, 2019).

The comparison between NATO countries and their global partners reveals significant differences in the implementation of CBP. While NATO members benefit from a common framework and shared experience, global partners face the challenge of adapting the model to their unique national contexts. Nevertheless, with proper application of CBP, future standardization is possible, enabling closer and more effective cooperation in joint operations.

This document explores how CBP can be adapted and applied in different national contexts, highlighting lessons learned from NATO and their implications for global partners. Through a detailed analysis of cases and examples, it aims to provide a deep understanding of how CBP can transform defense planning and enhance responsiveness to emerging threats.

## **Theoretical Framework**

### **Definition of Capabilities-Based Planning**

Capabilities-based planning (CBP) is a strategic approach that focuses on developing the necessary capabilities to address a wide range of challenges and operational scenarios, rather than preparing for specific threats. “...(CBP) *is planning, under uncertainty, to provide capabilities suitable for a wide range of modern-day challenges and circumstances while working within an economic framework.*”(Davis, 2002). This strategy enables military organizations to flexibly respond to evolving strategic landscapes while maintaining their forces' readiness across diverse operational scenarios. Additionally, it promotes the development of versatile capabilities that can address both conventional and emerging threats. Furthermore, this adaptive framework allows defense planners to efficiently allocate resources and implement training programs that prepare forces for multiple contingencies simultaneously.

### **Fundamental Principles of CBP**

CBP is based on several key principles that distinguish it from other planning approaches, such as threat-based planning. One fundamental principle is the identification and development of capabilities through Lines of Development (LoD), which include doctrine, organization, training, material, leadership, personnel, facilities, interoperability, and policy (DOTMLPFI+P) (Correia, 2019). These LoDs are essential to ensure that armed forces can operate jointly and effectively, both nationally and internationally.

Capabilities-Based Planning emphasizes the development of flexible, adaptive, and robust military capabilities that can effectively respond to a wide range of potential threats and operational scenarios. This approach prioritizes planning under uncertainty, allowing for the identification of essential capabilities that can be tailored and assembled as needed, rather than relying on specific threat scenarios. By focusing on modular building blocks and the ability to rapidly adapt to changing circumstances, CPB aims to ensure that military forces are prepared for diverse challenges while optimizing resource allocation within an economic framework. (Davis, 2002).



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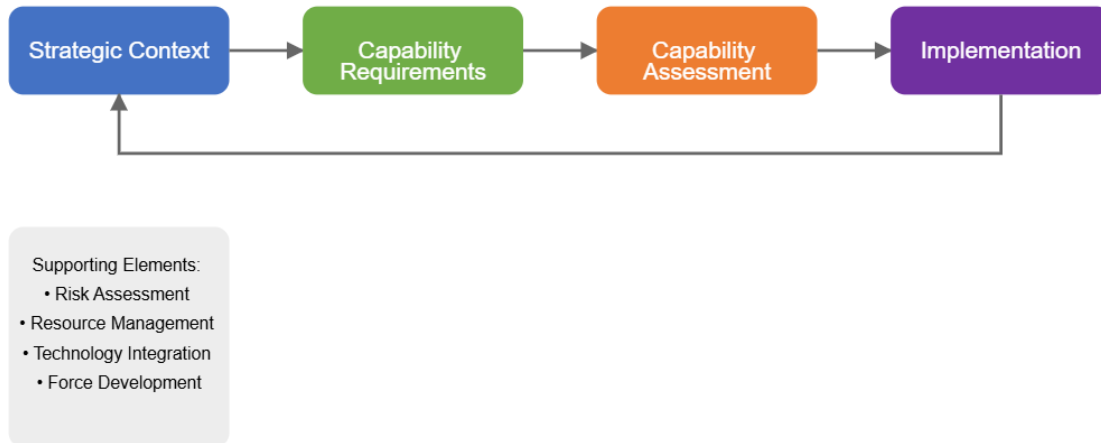


Fig 1. Capabilities-Based Planning Process Flow

### **Comparison with Threat-Based Planning**

While threat-based planning provides a focused approach to known adversaries, CBP offers a more versatile and comprehensive framework that is better suited to the dynamic and uncertain nature of modern security environments. For NATO, which relies on the cooperation and integration of multiple nations' forces, CBP's emphasis on interoperability and adaptability is particularly advantageous. This ensures that NATO can respond effectively to a wide range of potential threats, maintaining readiness and cohesion across its member states. *“...although there are differences in approaches to the concept of capability among countries, the outcome of each planning process has not hindered operations in various theaters.”* (Correia, 2019).

### **Application of CBP in International Contexts**

CBP has been adopted by defense organizations like NATO to improve coordination and resource optimization among its member states. However, its application is not limited to NATO countries. Global partners, who often possess varied and difficult-to-standardize military capabilities, are also adopting this model to improve their interoperability and operational effectiveness. The ability to adapt CBP to different national contexts is crucial to ensure that armed forces can effectively respond to emerging threats and operate jointly in international operations.

In the case of Colombia, the experience in riverine operations has demonstrated the importance of adapting capabilities to local conditions. According to the document "Improving the U.S. Navy Riverine Capability: Lessons from the Colombian Experience" Colombian riverine forces have developed innovative tactics to control rivers and secure communication lines, which has been crucial in confronting insurgent and narcoterrorist groups. (Flores, 2007)

In Colombia, the extensive experience gained from riverine operations has highlighted the vital need to tailor military capabilities to the specific local conditions found in the country's varied river systems. Colombian riverine forces have crafted a variety of innovative tactics and approaches to effectively manage river control and secure communication routes, which have been essential in their campaigns against insurgent and narcoterrorist organizations, including FARC, ELN, and various drug trafficking groups. These strategies involve the strategic collection of intelligence and natural surveillance to pinpoint and leverage key river nodes and enemy choke points, facilitating precise and effective operations. Additionally, Colombian forces have focused on creating adaptable and resilient riverine units, such as the Light Riverine Combat Element and the Riverine Support



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IN THE 21<sup>st</sup> CENTURY”**

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Patrol Boat, which can operate in both primary and secondary waterways. This flexibility has allowed them to exert control over around 70% of the nation's navigable rivers, significantly hindering the activities of illegal groups and aiding in the reestablishment of economic stability and state authority in previously contested regions. The Colombian case provides important insights into how riverine capabilities can be integrated with broader military and strategic goals, emphasizing the necessity for ongoing innovation and adaptability in response to changing threats.

On the other hand, the document "Logistics challenges in America Latina: Case Colombia" highlights the logistical challenges faced by Colombia due to its mountainous geography and lack of adequate infrastructure. These challenges underscore the need for capabilities-based planning that can address logistical limitations and improve operational efficiency in complex contexts. (Rodriguez, 2024)

### **Capabilities-Based Planning and Military Logistics**

Capabilities-based planning (CBP) is an approach that allows armed forces to identify and develop the necessary capabilities to face a variety of operational scenarios. This approach is crucial in the context of military logistics, where efficiency and adaptability are essential for the success of operations. In Latin America, and specifically in Colombia, logistical challenges are significant due to deficient infrastructure and the lack of international treaties that allow for an adequate flow of goods and services with continental partners. According to the document "Logistics challenges in America Latina: Case Colombia," the quality of transportation infrastructure and the inefficiency of customs processes are major barriers affecting logistical performance (Rodriguez, 2024). These challenges highlight the need for a CBP approach that can address these limitations and improve operational efficiency, especially focused on the country's ability to effectively respond to difficulties that may arise in commercial processes.

The logistics and infrastructure challenges faced by Colombia, underscore the necessity for a Capabilities-Based Planning (CBP) approach. This approach can significantly enhance the country's ability to respond effectively to the complexities of commercial processes. CBP focuses on developing flexible and adaptable capabilities that can be tailored to meet a wide range of scenarios, which is crucial given Colombia's diverse geographical and infrastructural landscape. By prioritizing the development of robust transportation networks, including roads, railways, and waterways, CBP can help mitigate the high logistics costs and inefficiencies currently plaguing the country.

Moreover, CBP can facilitate the integration of advanced technologies and innovative practices in customs clearance processes, reducing delays and improving the predictability of trade operations. This is particularly important in Colombia, where the digitization of customs procedures has already shown promise in enhancing efficiency. By aligning infrastructure development with strategic economic goals, CBP can also support the expansion of intermodal transport systems, thereby improving connectivity between major ports and industrial hubs. This would not only lower transportation costs but also boost Colombia's competitiveness on a global scale.

Furthermore, CBP's emphasis on interoperability and standardization can aid in harmonizing Colombia's trade practices with international standards, fostering smoother cross-border transactions. By addressing these logistical and infrastructural challenges through a CBP framework, Colombia can better position itself to capitalize on trade opportunities and drive sustainable economic growth.

### **Logistical Challenges in Colombia**

Colombia faces unique logistical challenges due to its mountainous geography and lack of adequate infrastructure. The road infrastructure is particularly deficient, resulting in high logistical costs and delays in transporting goods from ports to major cities. The document "Logistics challenges in America Latina: Case Colombia" highlights that Colombia ranks 97th in road connectivity and 104th



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in road infrastructure quality worldwide, indicating poor performance in these aspects (Rodriguez, 2024). However, there is a path outlined for the country's modernization in technological aspects, such as the implementation of infrastructure projects like fourth and fifth generation (4G and 5G) projects, which are crucial for improving connectivity and reducing long-term logistical costs. Additionally, the digitalization of its customs clearance processes has improved procedures that allow for the rapid release of goods for the proper development of commercial logistics areas at the national level.

### **Importance of Logistics in Strategic Objectives**

Logistics is a fundamental component for achieving strategic objectives in the military domain. Efficient logistics not only ensures the timely supply of resources and equipment but also allows armed forces to maintain flexibility and responsiveness to changing situations. In the context of CBP, logistics should be seen as a critical capability that must be continuously developed and optimized. The ability to rapidly mobilize and deploy forces can be a decisive factor in the success of military operations. Moreover, well-planned and executed logistics can enhance interoperability among allied forces, which is essential for joint operations within alliances like NATO. In summary, logistics not only supports military operations but also serves as a key enabler for achieving strategic objectives at both national and international levels

### **Case Study: Colombian Military Forces**

#### **Context and Transformation of the Public Force**

The Colombian military forces have been undergoing a continuous transformation process to address the security challenges presented by the country's strategic environment. This process has been guided by the Transformation and Future of the Public Force program, which aims to design a flexible, sustainable, and adaptable force structure to meet future challenges (Pineda, 2017) The capabilities-based planning (CBP) methodology has been central to this effort, allowing the armed forces to align their capabilities with strategic priorities and available resources.

#### **Implementation of Capabilities-Based Planning**

CBP in Colombia focuses on translating political guidelines and strategic defense and security priorities into prioritized capabilities for development. This approach involves a series of planning stages, including political and strategic direction, capabilities planning, portfolio structuring, and portfolio management (Pineda, 2017) The methodology enables the armed forces to identify capability gaps and formulate both material and non-material solutions to close them, ensuring that the forces can respond to current and future threats.

#### **Evaluation and Monitoring of Capabilities**

A key component of CBP is the continuous evaluation of current capabilities compared to those required for the future. This is done through a capabilities monitoring system that assesses the readiness and fulfillment of capabilities across various units of the Public Force. This system provides critical information for strategic and operational planning, ensuring that the forces are prepared to face any challenge.

#### **Logistics as a Tool for Strategic Approach**

Logistics plays a critical role in the strategic planning and operational effectiveness of the Colombian Military Forces. The ability to mobilize and sustain forces in remote and challenging terrains is essential for maintaining national security and sovereignty. This capability ensures that the armed forces can respond swiftly and effectively to various threats, whether they are internal or external, conventional or unconventional.



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The implementation of a capabilities monitoring system is a vital component of this logistical framework. Such a system allows the military to continuously assess and evaluate their logistical and operational capabilities. This ongoing evaluation is crucial for identifying and addressing capability gaps, ensuring that the forces remain prepared to face any challenges that may arise.

Maintaining a high level of readiness and availability of capabilities. This approach focuses on the availability of capabilities rather than their immediate use, ensuring that the military is always prepared for potential threats. The capabilities monitoring system supports this by providing real-time data and insights into the state of readiness and the effectiveness of logistical operations (Pineda, 2017).

This means that the logistics system must be flexible enough to adapt to changing operational environments and strategic demands. By leveraging existing resources and capabilities, the armed forces can optimize their logistical operations without necessarily acquiring new platforms, thus ensuring efficient use of resources *“Resource focused planning considers available resources as a limit and looks at priorities, tradeoffs, and substitution opportunities to meet the most possible potential demands from a finite resource base”*. (Mazarr & Lei Best, s. f.)

In summary, logistics is a cornerstone of the Colombian military's strategic objectives, and the capabilities monitoring system is an essential tool for ensuring that logistical and operational capabilities are continuously evaluated and optimized. This ensures that the military remains agile, responsive, and capable of maintaining the country's security and sovereignty.

The case of the Colombian military forces illustrates how capabilities-based planning can be effectively applied to transform and enhance military capabilities in a complex operational environment. The Colombian experience offers valuable lessons for other nations facing similar challenges, highlighting the importance of adaptability, innovation, and the integration of logistical and operational capabilities for success on the battlefield.

### **Implementation of CBP in Europe**

In Europe, capabilities-based planning is a well-established approach, especially within NATO and the European Union. These organizations have developed robust frameworks for defense planning that allow member countries to coordinate their capabilities and resources effectively. NATO, for example, uses CBP to ensure that allied forces can operate jointly and effectively across a variety of scenarios. This approach focuses on interoperability and standardization, facilitating cooperation among different armed forces (Davis, 2002).

European countries tend to have more developed logistical infrastructures and broader financial resources, allowing them to implement CBP more effectively. Additionally, shared experience and joint exercises within NATO provide a common framework that helps overcome national barriers and optimize collective capabilities.

### **Implementation of CBP in Latin America: The Case of Colombia**

In contrast, Latin American countries, such as Colombia, face unique challenges in implementing CBP due to infrastructure and resource limitations. According to the document "Planeación Basada en Capacidades, Herramienta de Gestión para la Transformación y Futuro de la Fuerza Pública en Colombia," CBP in Colombia focuses on closing capability gaps through resource optimization and aligning capabilities with strategic objectives (Pineda, 2017).

Colombia has adopted CBP as part of its Transformation and Future of the Public Force program, seeking to design a flexible and sustainable force structure that can address the challenges of a changing operational environment. However, the country faces significant challenges in terms of logistical infrastructure, as highlighted in the document "Logistics challenges in America Latina: Case Colombia," where the quality of transportation infrastructure and the efficiency of customs processes are critical areas that require improvement (Rodriguez, 2024).



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**“DEFENSE RESOURCES MANAGEMENT  
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**Braşov, October 30<sup>th</sup>-31<sup>st</sup> 2025**



### **Comparison and Lessons Learned**

The comparison between Europe and Latin America in the implementation of CBP reveals significant differences in terms of available resources, infrastructure, and operational experience. While European countries can benefit from well-established frameworks and ample resources, Latin American countries must face more complex logistical and financial challenges.

However, the case of Colombia offers valuable lessons on how CBP can be adapted to contexts with limited resources. The flexibility and adaptability of CBP allow the Colombian armed forces to prioritize critical capabilities and optimize resource use, which is essential for addressing emerging threats and improving operational efficiency.

Although there are significant differences in the implementation of CBP between Europe and Latin America, the approach offers important benefits in both contexts, allowing armed forces to align their capabilities with strategic objectives and enhance their responsiveness to future challenges.

### **Conclusions**

Capabilities-based planning (CBP) has proven to be an effective tool for the transformation and modernization of military forces, both in Europe and Latin America. In Europe, CBP has facilitated interoperability and standardization among NATO member countries, optimizing resource use and improving joint response capabilities. This approach has allowed European armed forces to quickly adapt to a changing security environment, ensuring they are prepared for a variety of operational scenarios (Pineda, 2017).

In Latin America, the case of Colombia highlights how CBP can be adapted to contexts with limited resources. Despite logistical and infrastructure challenges, Colombia has implemented CBP as part of its Transformation and Future of the Public Force program, prioritizing critical capabilities and optimizing resource use. This has allowed the Colombian armed forces to improve their operational efficiency and responsiveness to emerging threats (Rodriguez, 2024). The Colombian experience underscores the importance of CBP's flexibility and adaptability, allowing armed forces to evolve according to changes in the operational environment.

The comparison between Europe and Latin America reveals that, although there are significant differences in the implementation of CBP, the approach offers important benefits in both contexts. The ability to align military capabilities with strategic objectives is crucial for addressing 21st-century security challenges, where rapid response and adaptability are essential for success (Pineda, 2017; Rodriguez, 2024).

### **Recommendations**

To maximize the benefits of CBP, it is recommended that Latin American countries continue to strengthen their logistical infrastructures and improve the efficiency of their administrative processes. This could include investments in technology for process digitalization and the improvement of transportation infrastructure, which would facilitate more efficient and effective logistics (Rodriguez, 2024). Additionally, fostering regional cooperation and exchanging best practices with European countries could provide valuable lessons and experiences to help overcome current challenges. Finally, it is crucial for armed forces to maintain a focus on innovation and continuous improvement, ensuring that their capabilities evolve according to the changing needs of the strategic environment (Pineda, 2017).

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***The 20<sup>th</sup> International Scientific Conference***  
***“DEFENSE RESOURCES MANAGEMENT***  
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**Braşov, October 30<sup>th</sup>-31<sup>st</sup> 2025**



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