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The Defense Policy of King Gia Long on Vietnam's Southwestern Border Region (1802-1820)

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ABSTRACT: After reuniting the nation in 1802, King Gia Long set out to build, develop and protect it. King Gia Long was particularly interested in the defense of the southwestern border area due to its geo-strategic location and significant influence on the security of the country's south. Consequently, King Gia Long planned and executed a defense policy in this critical border area to promote all the resources to serve Vietnam's defense and protection. Using specialist research methods, this article focuses on clarifying King Gia Long's defense policy on the southwestern border region during the period 1802-1820, order to firmly safeguard Vietnam's southern territorial integrity.

KEYWORDS: King Gia Long, defense policy, southwestern, border.

1. INTRODUCTION

King Gia Long prioritized national defence and border protection since the establishment of the Nguyen dynasty in 1802. In southern territory, King Gia Long had to carefully reinforce its national defense. The Nguyen dynasty was highly interested in the southwestern border area because it was a new land with a geo-strategic position near Chenla and Siam; thus, defence was prioritized. Based on the peculiar characteristics of the southern region, the Gia Long dynasty progressively developed a clear and consistent awareness of the Southwest border region's defense policy planning and implementation. With the vision of strategy, King Gia Long started the Nguyen dynasty's defense policy on this key border territory with the ideology of "rule the country, peaceful the people" when issuing an edict that: "He and officials fought hundreds of hard battles to get here. In times of peace, remember to in times of war, it is the true way to preserve the country and the people tranquil" (National History of the Nguyen dynasty, 2007a, p.811). As a result, King Gia Long tried to establish, consolidate, and promote resources for national defence in the southwestern border region as a basic component of national security. In particular, King Gia Long placed peace between the country and the people in a close, inseparable symbiotic relationship with Vietnam's national defense. For the 1802-1820 period, King Gia Long worked to strengthen the nation's security by focusing on economic growth, transportation, sociopolitical stability, and the construction and consolidation of military troops in the southwest frontier region.

2. RESEARCH METHODS

To study this issue, we employed a range of research methods including document collection, historical critique, and historical methods mixed with logical methods. Each research methodology was used at each step of the topic's completion, with different duties.

The document collection method was based on research orientation, content creation, and the entire research process. This allows us to gain knowledge from, refer to, and comprehend previously published materials with content pertinent to King Gia Long's defence policy in Vietnam's southwestern border region (1802-1820).

The method of historical criticism was used to classify the collected historical sources as direct or indirect historical documents, which allowed us to restore and properly perceive issues related to King Gia Long's defence policy in Vietnam's southwestern border region (1802-1820). This technique actively aids in determining the reliability, context, time period, and authorship of the historical records. This allowed us to assess the accuracy and objectivity of the historical content to rebuild the entire image of King Gia Long's defense policy on Vietnam's southwestern border region (1802-1820).

Throughout the process of this study, the historical approach combined with the logical method was used to study historical issues in birth, development, and end, in a particular circumstance, location, and period. As a result, we are able to provide an analysis, judgment, assessment, and generalization of the problem's historical process through historical sources to contribute to the complete restoration of King Gia Long's defense policy on Vietnam's southwestern border region (1802-1820). Two primary

methods are used to address this issue.

We attempted to apply the aforementioned methods to this issue in a suitable manner to ensure the scientific and historical research perspective of the subject.

3. RESULTS AND DISCUSSION

3.1. Perspectives and perceptions of King Gia Long in about the southwestern border region

Under Gia Long's reign, the Southwestern border region of Vietnam held a key position in terms of defense, corresponding to the territory of Gia Dinh, Dinh Tuong, Vinh Thanh and Ha Tien Trans and the Southwestern Sea of Vietnam. Because of their physical placement along the lengthy boundary line on Vietnam's southwestern face, these towns played an essential strategic role in the Nguyen dynasty's southern defense policy.

During the first 20 years of the nineteenth century, while the southern part of Vietnam entered the stage of promoting land reclamation and opening, the southwestern border region played a unique geo-strategic role with a frontline position to prevent foreign countries from sending soldiers to invade (Vu Duc Liem, 2016). Under Gia Long's rule, this area was discovered late and contained a lot of fallow land but was poorly populated. In addition, it was a place where political, diplomatic, and military instability frequently arose between Vietnam and its neighboring nations, such as Chenla and Siam.

From the time he raised up the Nguyen family's revival until he established the Nguyen dynasty (1802), King Gia Long always considered Gia Dinh to be a very important land. The Gia Long dynasty regarded the southwestern border region as a "important border" site, "land of prosperity," "land of career development," and "fundamental land" in King Gia Long's early days of creating a career. Consequently, it has significant meaning and importance in terms of defense strategies. According to King Gia Long once confirmed that Gia Dinh land was not only a very important place but also very rich because "since the rise of the army until now, the army's food has been taken there..." or "Gia Dinh has fertile land, the first lords expanded it for less than a hundred years, but the army was strong and wealth was abundant..." (National History of the Nguyen dynasty, 2007a, p. 537, 559, 946). Therefore, when issuing edicts regarding the South, King Gia Long always mentioned and underlined the significance of areas on the southwestern border such as Chau Doc, Ha Tien, Tran Dinh (Dinh Tuong), Vinh Thanh, Phien An for the country's southern defense.

From the beginning of the Nguyen dynasty, King Gia Long dispatched the Minister of Military Affairs Le Quang Dinh study books, maps of the entire country, citadels, palaces, towns, forts, and posts from Lang Son to Ha Tien to clearly understand the country's geography and territory, particularly its southwestern border region (Le Quang Dinh, 2005). King Gia Long issued an order that "must record all hills, mountains, roads, rivers, seas, canals, bridges, markets, customs, local products, and population of the country" (National History of the Nguyen dynasty, 2007a, p. 684) as a foundation for national policy planning. King Gia Long gradually recognized the importance of strategic locations on the southwestern border in terms of national sovereignty and territorial integrity of the Fatherland based on the special characteristics of nature, residents, and socio-economic of Gia Dinh region.

With the vision of a king who founded the country, King Gia Long recognized that "Gia Dinh's terrain was vast…" and "… sent his court to carefully discuss the work to preserve the territory firmly." (National History of the Nguyen dynasty, 2007a, p. 916). At the same time, King Gia Long also said that: "The role of Chau Doc and Ha Tien was no less important than that of Bac Thanh" (National History of the Nguyen dynasty, 2007a, p. 946).

On the other hand, according to King Gia Long, "Ha Tien was a place in the southern border area and played an important role in providing information on the border" (National History of the Nguyen dynasty, 2007a, p. 804), implying that "Ha Tien was an important place outside the border." (National History of the Nguyen dynasty, 2007a, p. 821). In an 1819 proclamation of the Vinh Thanh people, King Gia Long stated, "Your town was on the border, as a hedge for the country. It was genuinely a location of conflict when the army initially rose up" (National History of the Nguyen dynasty, 2007a, p. 985).

Furthermore, the location adjacent to the territory and territorial sea of Chenla and Siam affirmed the importance of the southwestern border region in the defence and foreign policy of the Gia Long dynasty. With the function of "an important place in the south of Vietnam" (National History of the Nguyen dynasty, 2007a, p. 882), King Gia Long concentrated on this border territory to reinforce the defensive system against foreign invaders and as a springboard to conquer Chenla aspires to achieve a strategic balance with Siam. Therefore, King Gia Long affirmed: "Gia Dinh Thanh and Phnom Penh were adjacent to each other, it was impossible not to be on guard." (National History of the Nguyen dynasty, 2007a, p. 798).

As a result of being cognizant of the southwestern border region's location, function, and strategic significance in diplomatic relations with Chenla and Siam, as well as inheriting the achievements of land exploration and establishing the sovereignty of the Nguyen lords, King Gia Long made every effort to devise a comprehensive defence policy aimed at supporting the cause of building, asserting sovereignty, and defending the integrity of the southwestern border region.

3.2. The defense policy of King Gia Long on Vietnam's southwestern border region

As early as 1802, King Gia Long placed a special emphasis on land reclamation, bolstering the army, and constructing military installations to manage and preserve the integrity of Vietnam's territory on the southwestern border. He sought to transform this vital border region into a center for political, military, and economic growth to secure resources for national security. King Gia Long's defense policy in the southwestern border region was created and implemented in various aspects ranging from administrative to economic to military in order to promote all resources for the sake of safeguarding the country and national security.

In terms of administration, since 1802, King Gia Long has turned Gia Dinh Phu into Gia Dinh Tran, led by Luu Thu, with the purpose of establishing a powerful administrative apparatus capable of controlling the Southwest region to protect the kingdom (National History of the Nguyen dynasty, 2007a, pp. 487, 488). Gia Dinh Tran had 5 Trans at the time, including Phien Tran, Bien Tran, Dinh Tran, Vinh Tran, and Ha Tien Tran, all of which were led by Tran Thu and assisted by Cai Ba and Ky Luc (Truong Thi Yen, 2017). In 1808, King Gia Long ordered the court to discuss the administration and defence of the country. Following that, the King organized the Southern region into units including "Thanh", "Tran", "Phu" - "Huyen", "Tong", "Xa" - "Thon" - "Ap". Accordingly, King Gia Long arranged the Southwestern border area of Gia Dinh Thanh to be distributed in 4 Trans areas including Phien An, Vinh Thanh, Dinh Tuong and Ha Tien. (National History of the Nguyen dynasty, 2007a, p. 716)

In terms of personnel, King Gia Long advocated the selection of martial generals who had served in the army during Trung Hung to secure the southwestern frontier areas. Tong Tran was the leader of Gia Dinh Thanh. Tran Thu was the leader of each Tran (National History of the Nguyen dynasty, 2007a, p. 803). King Gia Long made these preparations to establish a strong southwestern border area capable of defending the kingdom.

Furthermore, to boost the economic potential for national defense, King Gia Long pushed reclamation, village establishment, and plantation establishment throughout the southwestern border region (Truong Thi Yen, 2017). King Gia Long dispatched peasants and troops to clear the land, eventually establishing plantations, packed towns, and hamlets to transform bleak plains into rich fields and a thriving economy. All must be able to provide people, materials, and financial resources for border defense activities in the southwest.

King Gia Long completely rallied all classes of people to participate and aid with money and means of producing production for peasants, with the highest anticipation of stabilizing the general situation in the new area and creating unified administration (Cabinet of Nguyen dynasty, 1993, p. 154). In addition, the Gia Long dynasty used a variety of land reclamation methods without discriminating against any type of labor (Nguyen Quang Ngoc, 2017, p.275), and there were specific incentives (Vu Huy Phuc, 1979, p. 136) for them to participate in reclamation in the southwestern border region.

On the other hand, to expand and develop agricultural production, commerce, and defense, King Gia Long also promoted new excavation and dredging of rivers and canals with typical works such as the Thoai Ha canal, Vinh Te canal, and Bao Dinh canal. These projects have made significant contributions to linking natural rivers and ensuring smooth traffic flow across Gia Dinh Thanh. All of these have contributed significantly to the growth of production and defense in this border area.

Along with the growth of water transportation, King Gia Long promoted the development and extension of road transportation routes in the southwestern border region. He once issued an edict that: "Gia Dinh Thanh borders Chenla, roads are everywhere, so you need to discuss with each other to repair roads to create conditions for defense in the border" (National History of the Nguyen dynasty, 2007a, p. 935). Based on that policy, the Gia Long dynasty constructed the Thien Ly road from Gia Dinh to Ha Tien (Nguyen Duc Nhue, 2020, p.263). In addition, the Gia Long dynasty built and enlarged several roads and dikes linking inner and inter-towns, as well as Chenla, to service the development of new territories as well as military and national defense (Le Quang Dinh, 2005; National History of the Nguyen dynasty, 2007a).

The cause of reclamation, forming communities, plantations, hamlets, opening irrigation canals, and building roadways was an important part of the overall picture of southern region development. This played a significant role in national defense and the development of state sovereignty in the southwestern border area under Gia Long's reign. Along with the construction and consolidation of administrative, increasing, and growing economic resources, the Gia Long dynasty has gradually fostered the organization, construction, and growth of the national defence force in the Southwest border region. Gia Long worked on this subject synchronously in areas such as military organization, leadership personnel, and army weaponry, as well as the development of a system of important defensive facilities in this border area.

King Gia Long has pushed for the establishment of a defensive force in the Southwestern border region based on the central factor of people, with the military force serving as the core. In an 1806 proclamation, King Gia Long said, 'Defending the country and preserving the people was impossible without the army. Managing the military requires its own set of rules in order for people to live peacefully and the country to develop." (National History of the Nguyen dynasty, 2007a, p. 651). In 1816, King Gia Long reminded the generals once more that: "Army organization was a big deal for the country; without an army, the country cannot

be defended' (National History of the Nguyen dynasty, 2007a, p. 916).

This was the foundation of the Nguyen dynasty's military policy in recruiting troops, establishing units, creating military insignia, and arranging stationing zones based on "using local human resources" to capitalize on the advantages of "people and land" of the Southwestern border region. In actuality, King Gia Long primarily deployed the Trung Hung period army to maintain the southwestern frontier, led by great generals like as Le Van Duyet, Nguyen Van Nhan, Truong Tan Buu, Nguyen Van Truong, Nguyen Hoang Duc, Tran Van Nang, Nguyen Van Thoai, Nguyen Van Ton, etc.

In 1803, King Gia Long recruited a significant number of troops throughout Gia Dinh Thanh, depending on the situation, to assign and mobilize them to critical defence positions. King Gia Long recruited soldiers in the Southwestern border region in the regions of Gia Dinh Thanh to use their expertise with the water and terrain here. In terms of recruiting soldiers, King Gia Long continued to believe in employing warriors from the Trung Hung period in the form of "Huong soldiers" as well as recruiting new soldiers mostly from the internal Tran (National History of the Nguyen dynasty, 2007a, p. 793, 798). Regarding the organization of personnel management for the army, King Gia Long paid close attention to examinations, selection, appointment of generals, and the arrangement of job titles and positions according to the capacity and experience that there was no partiality.

Along with recruiting soldiers, King Gia Long prioritized arming the army with high-quality weaponry in the southwestern frontier region. The Gia Long dynasty classified weaponry based on the military insignia of the areas. King Gia Long delegated the duty of transferring weaponry to the Southern border areas to a high-ranking official (National History of the Nguyen dynasty, 2007a, p. 820). Gia Long has advocated keeping weaponry in Gia Dinh citadel to provide and distribute to the army in the Southwestern border region in order to assist the country's defense as soon as possible (National History of the Nguyen dynasty, 2007a, p. 808). The main weapons were battleboats, cannons of all types, guns of all types, sabers, iron knives, spears, wooden sticks, long-nosed knives, gongs, big drums, and small drums.

Based on the natural conditions of the Southwest River, King Gia Long paid attention to increasing warships for the Navy. In 1807, King Gia Long directed the allocation of 33 O boats to Gia Dinh Thanh for allocation to Trans. In 1808, Gia Long ordered Luu Tran of Gia Dinh Thanh to assign 10 warships to each Tran (National History of the Nguyen dynasty, 2007a, pp. 706-714). Next, King Gia Long dispatched Nguyen Duc Huyen, Pham Van Tuong, and Tong Phuoc Luong to Gia Dinh to supervise the building of 60 O and Le boats for military usage (National History of the Nguyen dynasty, 2007a, p. 740).

Along with building a strong military force with a full range of weapons and combat vehicles, King Gia Long advocated for the construction and gradual adjustment of a system of defense facilities in the southwestern border region to prevent the enemy, protect the people, and protect the integrity of Vietnam's territory. King Gia Long created a system of stations, river-posts, forts, strongholds, and citadels along the Southwestern frontier to assist national defense. To control the road and waterway areas bordering Chenla, King Gia Long established defense facilities such as the Kien Tuong citadel, Tran Nguyen post, Tuyen Uy post, Thong Binh post, Hung Ngu post, and Du Hung post (National History of the Nguyen dynasty, 2006, pp. 125, 126) from the south of Phien An town to the end of Dinh Tuong town.

In the defense posture of the Southwest border, king Gia Long purposefully positioned the border territory from Tran Vinh Thanh to Tran Ha Tien as the center of the defensive system. Defence facilities were developed along the border and far inland to form a multi-layered defense system against invader attacks.

On the surface of the Mekong river, King Gia Long continued to use the Nguyen Lords' defense system of "Tam Dao" with three defensive bases: Tan Chau river-post (on Gieng islet in the middle of the Mekong river), Chien Sai river-post (on the left bank of the Mekong river), and Hung Ngu river-post (on the right bank of the Mekong river). At the beginning of Gia Long's reign, the "Tam Dao" posture was still maintained and played an essential part in the Nguyen dynasty's defensive structure in the southwestern border region (Le Quang Dinh, 2005, p. 104).

By 1818, Tam Dao's location was altered to accommodate a defensive posture toward the frontier. As a result, King Gia Long relocated the Tan Chau river-post to the Long Son region (part of Cai Vung islet), the Chien Sai river-post to the north of the Hiep An river's mouth (today's Hong Ngu canal), and the Hung Ngu river-post to the south of the Hiep An river's mouth (Trịnh Hoài Đức, 2005, tr. 219). Tan Chau and Chien Sai river-posts were finished by 1819 (National History of the Nguyen dynasty, 2007a, p. 981), but we havenot find anypapers that Hung Ngu river-posts was established at this time. All three new river-post were built in the border area, namely Tan Chau, Hung Ngu and Chien Sai to protect the Mekong river area at the beginning of the Tan Chau border (An Giang) and the end of the Dinh Tuong. King Gia Long strengthened the Dong Khau river-post (Sa Dec) behind Tam Dao, which has existed since the Nguyen lords (National History of the Nguyen dynasty, 2007a, p.166). The river post at Dong Khau formed a key backstop behind Tam Dao.

On the Bassac River route, from the previous period's military posts, King Gia Long re-planned major defense positions as well as expanding and strengthening new defense facilities stretching from the border to the south of the river. This defensive line was arranged with a series of very important defense facilities including: Da Phuc post, Chau Doc fort, Chau Giang post, Chau Giang

river-post, Chu Phu post, Thuan Phiem river-post, and Dong Xuyen river-post, Tran Giang river-post, Tran Di river-post and My Thanh river-post.

On this line of defense, King Gia Long particularly erected Chau Doc into an important defensive and command center, with Chau Doc fort serving as a key base. Tran Thu of Vinh Thanh Luu Phuoc Tuong finished Chau Doc fort in 1816 with a total number of militiamen of around 7,000 individuals (National History of the Nguyen dynasty, 2007a, pp.917-941). Chau Doc Fort was constructed with great strength and was completely supplied with guns, troopshouses and warehouses. Chau Doc fort was identified by the Nguyen dynasty as "an important border base", therefore King Gia Long ordered 40 sets of cast iron cannons and ammunition, as well as men, to rigorously garrison it (National History of the Nguyen dynasty, 2006, p. 216). Chau Doc fort was considered the largest defense facility on the Southwest border before An Giang citadel was born under the Nguyen dynasty. For security and defense concerns, King Gia Long permitted Tran Thu of the Vinh Thanh to relocate his headquarters from Long Ho (Vinh Long) to Chau Doc station in 1817, in order to quickly address border matters. On the other hand, because of his significant location, Tran Thu of Vinh Thanh tutelary mandarin had to take on the role of "Protector of the national seal of Chenla" while simultaneously managing Ha Tien's "border matters' (Duong The Hien, 2019).

Along with Chau Doc, King Gia Long designated Ha Tien as a shield for the Gia Dinh Thanh. As a result, concentrating and expanding defensive facilities in Ha Tien became the primary strategy of the Nguyen dynasty. Based on the security foundations laid by the Mac family, the Nguyen lords, and the Trung Hung era, King Gia Long constructed a system of defense facilities on Ha Tien territory, transforming it into a critical defense sector on the southwest border.

The Nguyen dynasty consolidated and utilised earlier military infrastructure such as the Ha Tien ancient citadel, Giang Thanh rampart, Phu Dung rampart, Kien Giang ward, and Long Xuyen ward for defense reasons (National History of the Nguyen dynasty, 2006, p.28). According to Gia Dinh Thanh Thong Chi, Kien Giang Dao is a key area in the sea; the defensive system establishes circumstances for defending land and people. King Gia Long delegated command of the Kien Giang religion to generals, with Kien Nghi warriors stationed on the coast. At the same time, the ambassadors of Siams and Chenla were welcomed to work. Furthermore, the Nguyen dynasty erected Long Xuyen Dao along the east coast of Ha Tien Tran to reinforce its mission to protect against maritime invaders (Trinh Hoai Duc, 2006, pp. 201-202).

In addition, King Gia Long built and reinforced Kim Du fortress, To Chau fortress, and Kim Du post to defend the enemy's navy and control the coastline. Phu Quoc Island was focused on by the Gia Long dynasty as an important base in controlling the Southwest sea of Vietnam. In 1816, King Gia Long established the Phu Quoc Fort with Le Van Y as Thu Ngu. At the same time, the king sent soldiers to form 10 Phu Cuong teams, and each team had 50 people. Each team was equipped with three large boats, three small boats, and all types of weapons. On the other hand, King Gia Long also exempted people from taxes on human and miscellaneous services if they could patrol the sea (National History of the Nguyen dynasty, 2007b, p.39).

Thus, by firmly pushing and enforcing defense policies, King Gia Long has established a tremendous source of synergy to optimize resources for national defense in the southwest border region. With these significant actions, King Gia Long laid a firm military foundation, contributing significantly to stability and peace on the southwestern frontier throughout the first 20 years of the nineteenth century.

4. CONCLUSION

King Gia Long's defense policy in the southern border area was a broad category in many fields that has been carried out on a regular basis with various levels in order to enhance resources to serve the cause of "keeping country and people's safety". This policy was reflected correctly and in accordance with the reality of Vietnam in the early 19th century in this important border area. King Gia Long steadily constructed the government and administrative apparatus to fulfill the objective of managing land and people, introducing the state's unified government system to the Southwestern localities. Economic resources were heavily pushed through reclamation; establishment of settlements and plantations; construction of canals, rivers, and roads; and the creation of a dynamic face for the new territory. Most significantly, King Gia Long efficiently constructed and developed a defense force with a powerful army and a system of solid defensive infrastructure to provide shock power on the frontlines of border protection. King Gia Long's sound defense strategies and instructions have substantially contributed to creating long-term firmness and stability on th Southwestern border region. The defence policy of King Gia Long in the Southwest border region was an important basis for successive Nguyen kings to preserve and improve the protection of Vietnam's territorial integrity against traditional enemies in Southeast Asia in the first half of the nineteenth century.

REFERENCES

- 1) Cabinet of Nguyen dynasty. (1993). Kham Dinh Dai Nam Hoi Dien Su Le, vol. 4. Hue: Thuan Hoa Publishing House.
- 2) Duong The Hien. (2019). The geopolitics military factors of Chau Doc within the defense strategy on the Southwestern

border of the Nguyen dynasty period 1802 – 1867. AGU International Journal of Sciences, vol. 7, no. 1, pp. 35-41.

- 3) Lê Quang Định. (2005). Hoang Viet Nhat Thong Du Dia Chi. Hue: Thuan Hoa Publishing House.
- 4) National History of Nguyen dynasty. (2006). Dai Nam Nhat Thong Chi, vol. 5. Hue: Thuan Hoa Publishing House.
- 5) National History of Nguyen dynasty. (2007a). Dai Nam Thuc Luc, vol. 1. Ha Noi: Education Publishing House.
- 6) Nguyen Duc Nhue. (2020). *History of Vietnam's transport from the 10th century to 1884*. Ha Noi: Social Science Publishing House.
- 7) Nguyen Quang Ngoc. (2017). The Land of the South of Vietnam, volume IV: From the beginning of the seventeenth century to the middle of the nineteenth century. Ha Noi: National Political Publishing House.
- 8) Trinh Hoai Duc. (2005). Gia Dinh Thanh Thong Chi. Dong Nai: General Dong Nai Publishing House.
- 9) Truong Thi Yen (2017). History of Vietnam, volume 5 (from 1802 to 1858). Hanoi Press: Social Sciences.
- 10) Vu Duc Liem. (2016). *Vietnam at the Khmer Frontier: Boundary Politics, 1802–1847.* Cross-Currents: East Asian History and Culture Review 5 (2): 534–64.
- 11) Vu Huy Phuc. (1979). Learn about Vietnam's land regime in the first half of the 19th century. Ha Noi: Social Science Publishing House.



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