

Practices and Reflections on the Border Entry-Exit Management Policies for Yunnan Residents from the Perspective of National Governance Modernization

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ABSTRACT

Yunnan Province, situated as a pivotal gateway in China's southwestern frontier, shares borders with Myanmar, Laos, and Vietnam, encompassing a boundary line of approximately 4,060 kilometers. In 2024, the province witnessed over 24 million cross-border movements involving both local residents and international travelers, alongside more than 10,000 transnational marriages. However, current entry-exit policies for border residents have increasingly revealed systemic shortcomings in practical application. This study employs field investigations, case analyses, and policy document reviews to uncover the underlying logic of these policy deficiencies and to propose pathways for improvement.

Keywords: *Border residents, Entry-exit policy, Yunnan Province.*

1. INTRODUCTION

The exit-entry management policies for border residents in Yunnan represent a concrete manifestation of national governance modernization in China's border regions. The modernization of national governance emphasizes a rule-of-law foundation, aiming to unify regulatory rigor and operational flexibility within the governance framework through measures such as legal institutionalization, service optimization, security prevention and control, international cooperation, and adaptive local adjustments. This approach not only embodies the practical implementation of national governance modernization but also addresses the evolving needs of borderland societies, serving as a microcosm of the modernization of state governance capabilities.

As China's strategic pivot towards South and Southeast Asia, Yunnan Province's 4,060-kilometer border not only shoulders vital responsibilities in advancing the Belt and Road Initiative but also plays a distinctive role in frontier governance. However, against the backdrop of intensifying cross-border mobility, current exit-entry policies for border residents have increasingly exposed

systemic flaws: loopholes in document verification triggering non-traditional security risks, rigid ethnic identity verification exacerbating social tensions among cross-border ethnic groups, and erosion of natural geographical barriers driving up governance costs. These issues not only jeopardize border security and stability but also hinder the implementation of national strategies such as the China-Laos Economic Corridor and the China-Myanmar New Passage to the Indian Ocean. Focusing on Yunnan Province, this study employs field investigations, case studies, and policy document analysis to uncover the underlying logic of these policy deficiencies and propose pathways for improvement.

2. CURRENT PRACTICES OF BORDER ENTRY-EXIT MANAGEMENT POLICIES FOR YUNNAN RESIDENTS

Yunnan Province, as a crucial border region adjoining Southeast and South Asia, is characterized by a diverse ethnic composition and intertwined cross-border cultures. In this context, policy formulation must adhere to national standards while accommodating local realities to

maximize policy effectiveness through differentiated governance.

2.1 Overview of Current Border Entry-Exit Management Policies in Yunnan

Legal Framework: The "Exit and Entry Administration Law of the People's Republic of China" establishes the fundamental legal framework for border residents' entry and exit activities. The "Yunnan Province Border Management Regulations" provide specific provisions for residents' cross-border movements in Yunnan's border areas. Additionally, local regulations and bilateral agreements with neighboring countries (e.g., China-Vietnam, China-Laos, China-Myanmar) outline border management protocols, supplemented by detailed implementation rules at the provincial and autonomous region levels. These policies aim to facilitate border residents' travel, promote border economic development, and maintain border security and social stability. Border residents possess a multifaceted identity: they are inhabitants of border areas, citizens entitled to equal legal protection, and constituents of the nation.

Policy Content: The border resident permit system is a central component of current policies. Eligible individuals are Chinese citizens residing in border counties (cities or districts), typically requiring local household registration or long-term residency proof. Permit types include the Border Resident Permit and the Single-Entry Exit Permit. The Border Resident Permit allows holders to cross designated ports of entry and exit, restricted to border areas of neighboring countries (e.g., Vietnam, Laos, Myanmar) and not extending to inland regions. The Single-Entry Exit Permit is issued under special circumstances, such as lost documents or emergencies.

Border residents benefit from simplified customs procedures, including dedicated channels at certain ports to expedite inspections. Under bilateral agreements, some neighboring countries' border residents may enter China's border areas visa-free with valid documents, typically for stays not exceeding 30 days (e.g., China-Vietnam, China-Laos borders). Upon entry, border residents are generally permitted to stay for 15–30 days within designated areas. Extensions or long-term stays require applications to public security authorities, accompanied by valid reasons such as family visits, trade, or employment.

Furthermore, border residents engaged in mutual trade enjoy certain tax exemptions. For instance, individuals importing goods through mutual trade may receive tax-free allowances up to 8,000 RMB per person per day, limited to government-approved border mutual trade zones (e.g., Ruili in Yunnan, Dongxing in Guangxi).

Special provisions exist for certain groups of border residents. Cross-border ethnic groups — ethnic communities residing on both sides of the border (e.g., Dai, Miao, Kazakh) — are afforded conveniences in family visits, weddings, and funerals. In emergencies such as natural disasters requiring medical assistance, green channels are available to expedite necessary support.

The following "Table 1" outlines the core national laws and selected local regulations constituting China's current exit and entry administration policy system. From a temporal perspective, the implementation dates of these laws and regulations span a considerable range — from 1987 to 2025 — highlighting that some components of the current policy framework have not undergone timely revisions or updates.

Table 1. China's exit and entry administration legal framework category

No.	Title	Implementation Date
I.	Core National Laws	
1	"Exit and Entry Administration Law of the People's Republic of China"	July 1, 2013
2	"Criminal Law of the People's Republic of China"(Relevant Provisions)	October 1, 1997
II.	Local Regulations	
1	"Border and Coastal Defense Management Regulations of Liaoning Province"	January 28, 1999
2	"Border Management Regulations of Jilin Province"	July 1, 2004
3	"Border Management Regulations of Heilongjiang Province"	March 1, 2024
4	"Border Management Regulations of Inner Mongolia Autonomous Region"	March 31, 2012
5	"Border Management Regulations of Gansu Province"	January 1, 2023
6	"Border Management Regulations of Xinjiang Uygur Autonomous Region"	November 30, 2022
7	"Border Management Regulations of Tibet Autonomous Region"	January 1, 2017
8	"Border Security Management Regulations of Guangxi Zhuang Autonomous Region"	August 1, 2017
9	"China-Vietnam Border Areas of Guangxi Zhuang Autonomous Region"	January 1, 1998
10	"Border Management Regulations of Yunnan Province"	January 1, 2017
11	"Personnel in China-Vietnam and China-Laos Border Areas of Yunnan Province"	November 1, 1992
12	"Border Residents in China-Myanmar Border Areas of Yunnan Province"	July 13, 1990
III.	Other Relevant Legal Documents	
1	"General Administration of Customs Announcement No. 43 of 2025"(Regarding Inbound and Outbound Luggage Items)	April 1, 2025
2	"Regulations on the Administration of the Entry and Exit of Foreigners of the People's Republic of China"	September 1, 2013
3	"Customs Law of the People's Republic of China"	July 1, 1987

a Source: Compiled from official websites of provincial governments.

2.2 Achievements of Yunnan's Border Entry-Exit Management Policies

In recent years, Yunnan Province has made significant strides in implementing border entry-exit management policies, achieving a balance between national openness and border security.

2.2.1 Policy Implementation Outcomes

Port Management: In early 2025, Daluo Port recorded 334,700 cross-border movements between January and February, marking a 31.27% year-on-year increase. This surge is attributed to upgraded port facilities and enhanced trade cooperation. Similarly, Hekou Port surpassed the annual

milestone of one million cross-border movements for the first time, with a 20% year-on-year growth, solidifying its role as a key node in China-Vietnam cross-border exchanges.

Law Enforcement Efficiency: In 2022, Yunnan's border inspection authorities investigated 837 cases related to border management violations. Notably, the province led the nation in three core indicators: number of leads, supervised cases, and international apprehensions. The integrated "Party-Government-Military-Police-Civilian" joint defense mechanism contributed to a more than 10% year-on-year decrease in criminal cases in border areas.

2.2.2 Economic Impact

Trade Growth: By 2025, Yunnan's trade with South and Southeast Asian countries achieved a compound annual growth rate of 27.7% over the past decade, reaching over 114.6 billion yuan in 2024. Border trade zones contributed over 40% to this volume, highlighting their pivotal role in regional economic integration.

Infrastructure Synergy: The China-Laos Railway's freight volume exceeded 50 million tons in 2025, extending its reach to 19 economic hubs across Southeast Asia. Concurrently, the China-

Myanmar New International Land-Sea Trade Corridor, utilizing combined road, rail, and water transport, enhanced cross-border logistics efficiency by 35%.

Pandemic Response: During the COVID-19 pandemic, the "cross-border driver zoning management" mechanism — requiring foreign drivers to exit the country on the same day and Chinese drivers to operate under closed-loop management — maintained an average daily passage of 6,500 trucks. This approach kept the international supply chain disruption rate below 3%.

Table 2. Statistical table of exit-entry traveler flow data (2015-2024)

Year	Total Cross-Border Movements (billion)	Year-on-Year Change (%)
2024	6.1	43.9
2023	4.24	266.5
2022	1.16	-9.6
2021	1.28	336.4
2020	0.29	-2184.0
2019	6.7	3.1
2018	6.5	8.7
2017	5.98	4.8
2016	5.7	9.1
2015	5.23	6.7

a Source: National Immigration Administration.

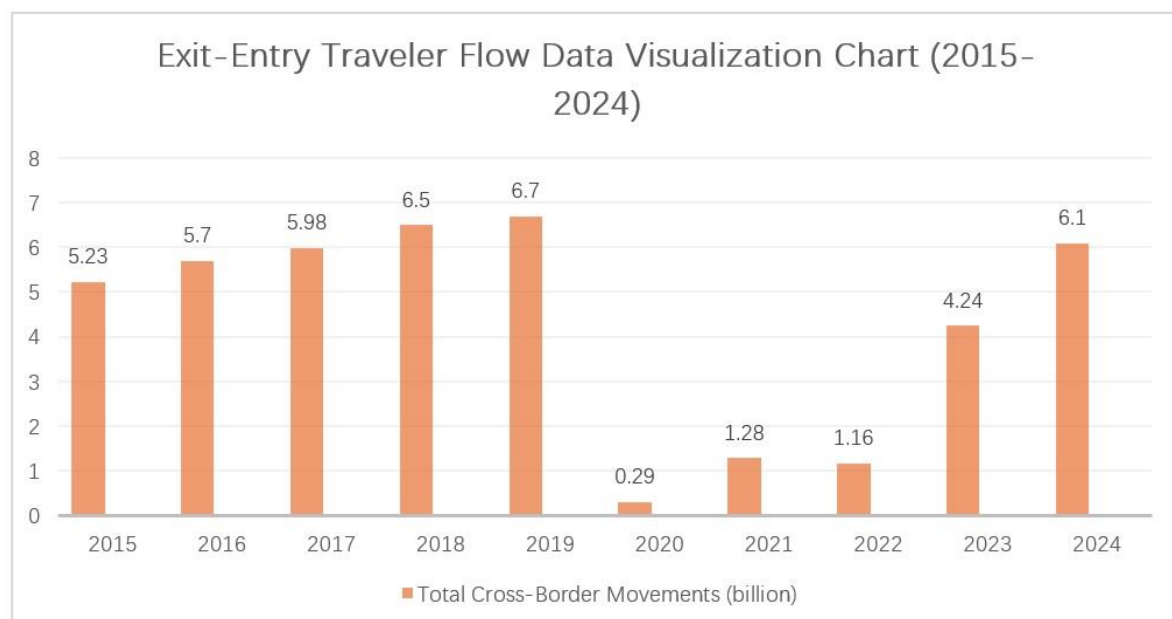


Figure 1 Exit-entry traveler flow data visualization chart (2015-2024).

The “Figure 1” presents the annual cross-border movement statistics from 2015 to 2024. Analysis of the data indicates a steady increase in cross-border movements from 2015 to 2019, peaking at 6.7 billion in 2019. The period from 2020 to 2022 saw a significant decline due to the COVID-19 pandemic. However, with the easing of the pandemic and policy adjustments, 2023 and 2024 witnessed a robust recovery, with movements reaching 6.1 billion in 2024—a 43.9% year-on-year increase.

This upward trend suggests that, barring unforeseen circumstances, cross-border movements are likely to continue rising. Consequently, developing a more scientific and comprehensive border entry-exit management system has become an imperative in advancing national governance modernization.

3. CHALLENGES IN IMPLEMENTING BORDER ENTRY-EXIT MANAGEMENT POLICIES FOR YUNNAN RESIDENTS

Despite notable achievements in executing border entry-exit policies, Yunnan Province faces several structural deficiencies and practical challenges. This section analyzes existing policy shortcomings from the perspectives of legal frameworks, law enforcement capacity, infrastructure, information sharing, and issues related to “Three Illegals” (illegal entry, residence, and employment), supported by specific cases and data.

3.1 Inadequate Legal Frameworks and Enforcement Difficulties

3.1.1 Legal Gaps and Overlaps

The current legal system governing foreign border residents entering China exhibits ambiguities, with overlapping or insufficiently targeted provisions. For instance, definitions and penalties for illegal entry and residence lack clarity, complicating law enforcement efforts. In 2018, a border city in Yunnan struggled to effectively address a mass incident involving foreign nationals due to inadequate legal grounds.

3.1.2 Operational Challenges in Law Enforcement

Existing regulations lack detailed provisions for special cases such as cross-border marriages and seasonal employment, resulting in excessive discretion or inconsistent enforcement. For example, cases of illegal residence arising from cross-border marriages often lack clear identification procedures, leading to management loopholes. According to relevant regulations, foreign border residents can acquire Chinese nationality through legal marriage; however, most foreign border residents in such marriages cannot register their unions, thereby hindering their ability to obtain household registration and Chinese nationality.

3.2 Weak Law Enforcement Capacity and Imbalanced Resource Allocation

3.2.1 Insufficient Personnel and Equipment

Yunnan's 4,060-kilometer border features complex terrain, yet law enforcement coverage remains limited. In 2020, a border county recorded 150,000 foreign border residents, managed by only 500 personnel across public security, border defense, and customs departments—averaging one officer per 30 foreign individuals. In 2024, Hekou Port (on the China-Vietnam border) handled over one million entries and exits, equipped with adequate police forces and advanced facilities. Conversely, remote areas like Pianma Town in Nujiang Prefecture suffer from understaffed border inspection stations, relying on community mediation teams for assistance. Additionally, some regions depend on traditional patrol methods, lacking modern equipment to counter sophisticated criminal activities.

3.2.2 Lagging Infrastructure

Border port facilities fall short of current demands. For example, the aging Yunnan-Vietnam railway suffers from insufficient capacity, and low-cost shipping potentials remain underutilized. Funding shortages at ports in Honghe Prefecture have further constrained customs efficiency. Prolonged overloading has deteriorated road conditions, adversely affecting border trade safety and the timeliness of personnel movement.

3.3 Lack of Information Sharing and Collaborative Governance Mechanisms

3.3.1 Data Silos Among Departments

Information systems of public security, border inspection, and customs departments are not fully integrated, hindering real-time sharing of data on illegal entrants. For instance, in 2024, a cross-border drug trafficking case in a Yunnan border county was delayed because the suspect exploited different ports of entry and exit to evade detection, due to the lack of real-time data exchange among departments.

3.3.2 Insufficient Cross-Border Cooperation

Intelligence sharing and joint law enforcement mechanisms with neighboring countries remain underdeveloped. Although infrastructure projects like the China-Laos Railway have enhanced economic exchanges, joint efforts to combat cross-border crimes such as drug trafficking and human smuggling rely on temporary actions, lacking a regularized cooperation framework.

3.4 Prominent "Three Illegals" Issues and Governance Challenges

3.4.1 Illegal Entry and Residence

Foreign nationals continue to enter China illegally through concealed routes, driven by factors like natural disasters and economic disparities. For example, in 2018, the complex terrain and numerous illegal crossing points in Honghe Prefecture led to the detection of dozens of cases involving hundreds of individuals.

3.4.2 Illegal Employment and Dependence on Low-End Industries

The economic structure of Yunnan's border areas is relatively simple, offering limited employment opportunities. This situation leads foreign nationals to engage illegally in low-skilled industries such as agriculture and construction. Statistics indicate that in some border counties and cities, the migrant workforce is highly mobile and seasonal, predominantly occupying low-skill positions, which complicates regulatory efforts.

In summary, the shortcomings of Yunnan's border entry-exit policies are concentrated in areas

such as an underdeveloped legal system, insufficient law enforcement resources, inefficient information coordination, and an imbalanced economic structure. These interrelated issues contribute to the persistent "Three Illegals" problems, which may become more complex with the advancement of regional economic integration. Future efforts should focus on legal reforms, the construction of intelligent border ports, and the deepening of cross-border cooperation to gradually address these policy deficiencies.

4. ANALYSIS OF THE CAUSES BEHIND THE DEFICIENCIES IN YUNNAN'S BORDER ENTRY-EXIT MANAGEMENT POLICIES

The shortcomings in Yunnan's border entry-exit management policies stem from multifaceted and deep-rooted factors. Historically, outdated institutional designs and the unique characteristics of cross-border ethnic groups have created tensions between policy provisions and practical needs. Geographically, complex terrains coupled with limited governance resources pose objective constraints on border control. Internationally, disparities in legal systems and insufficient collaborative mechanisms have erected institutional barriers to cross-border governance. The interplay of these factors contributes to the current complexities in border management.

4.1 Historical Lag in Institutional Design and the Particularities of Cross-Border Ethnic Groups

4.1.1 Fragmented Policy Framework

The existing policy system comprises national laws such as the *Exit and Entry Administration Law of the People's Republic of China* and the *Criminal Law of the People's Republic of China*, alongside various local regulations. However, inconsistencies and overlaps exist. For instance, the functions of the border resident permit system and the standard passport-visa system intersect, leading to management loopholes like the "dual-use of a single document" observed at the Ruili port.

4.1.2 Challenges in Defining Border Resident Identity

Cross-border ethnic groups often have familial networks and religious activities that transcend

national boundaries. According to data from the Mengla County Ethnic Affairs Bureau in 2021, cross-border ethnic groups such as the Dai and Jingpo constitute 63% of the total border resident population in Yunnan Province. Despite this, the definition of "border resident" still adheres to the household registration standards set by the 1986 *Yunnan Province Border Management Regulations*, failing to incorporate elements of cross-border cultural identity. A typical case involves the De'ang ethnic group along the China-Myanmar border, where individuals with legal status often find themselves in situations of "legal identity but illegal residence" due to their cross-border familial ties.

4.2 Contradictions Between Geographical Conditions and Governance Capacity

4.2.1 Erosion of Natural Barriers

Drone mapping indicates that the density of unofficial crossing points along the China-Myanmar border reaches 2.3 per kilometer. Seasonal changes, such as river course alterations during the rainy season, frequently create new illegal crossing paths. In 2023, most illegal border crossing cases detected at the Houqiao port in Tengchong exploited these geographical changes.

4.2.2 Imbalanced Allocation of Grassroots Enforcement Resources

Research data from the Honghe Prefecture Border Management Detachment reveals that, on average, each border inspection officer is responsible for monitoring 4.2 kilometers of border line, whereas the corresponding figure in developed countries is 0.8 kilometers. In terms of technological equipment, only 17% of border inspection stations are equipped with infrared thermal imaging devices.

4.3 Institutional Barriers to International Cooperation

4.3.1 Disparities in Legal Systems

Significant differences exist between China's border management legal system and those of neighboring countries like Myanmar and Laos. For example, Myanmar's *Border Resident Management Regulations* permit residents to cross borders using traditional handwritten permits, while China mandates electronic documentation. This discrepancy leads to daily verification conflicts for

approximately 2,000 individuals at the Ruili port. Furthermore, mechanisms for mutual recognition of evidence and judicial assistance in cross-border law enforcement remain underdeveloped. In 2022, Yunnan Province completed only 12 joint investigations of cross-border cases, with a success rate below 40%.

4.3.2 Limitations of Regional Security Cooperation

The Greater Mekong Subregion (GMS) security cooperation framework primarily focuses on counter-terrorism and drug control, lacking detailed guidelines for managing the daily cross-border activities of border residents. For instance, the labor permit agreement for border residents along the China-Laos railway faces constraints due to labor quota limitations, resulting in actual issuance rates covering only 35% of applications, thereby hindering the progress of regional economic integration.

5. MULTIDIMENSIONAL IMPACTS OF DEFICIENCIES IN YUNNAN'S BORDER ENTRY-EXIT MANAGEMENT POLICIES ON NATIONAL GOVERNANCE

As a pivotal gateway for China's engagement with South and Southeast Asia, Yunnan's unique geographical position endows its border entry-exit management policies with strategic significance. The current systemic deficiencies in these policies transcend traditional border management concerns, posing comprehensive risks to national governance. These risks manifest through multiple channels—geopolitical dynamics, economic development, social governance, and international relations—especially under the backdrop of increasingly normalized cross-border movements. The resultant chain reactions include heightened pressures on national security, impediments to regional economic coordination, escalated burdens on grassroots governance, and erosion of the foundations for international cooperation.

5.1 *Transmission of National Security Risks*

5.1.1 *Normalization of Non-Traditional Security Threats*

Policy loopholes have led to a surge in illegal cross-border activities in Yunnan's border regions. Between 2020 and 2022, numerous cross-border telecom fraud cases involved individuals exploiting border resident permits to commit crimes. Additionally, Dehong Prefecture reported an annual increase of 19% in smuggling cases involving precursor chemicals, predominantly through unofficial channels, highlighting deficiencies in physical and technological enforcement measures.

5.1.2 *Escalation of Biosecurity Challenges*

During the 2021 COVID-19 outbreak in Ruili City, 68% of transmission chains were traced to unauthorized entry points, underscoring vulnerabilities in the border's public health defense mechanisms. The outdated policy frameworks hinder the establishment of dynamic control systems, with inadequate medical and quarantine resources exacerbating the situation.

5.1.3 *Infiltration of Geopolitical Risks*

Frequent armed conflicts and refugee influxes along the China-Myanmar border, such as the 2023 Kokang incident leading to tens of thousands of refugees entering Lincang City, expose the absence of clear legal guidelines for refugee identification and temporary resettlement. Local governments resorted to ad-hoc control measures, attracting international scrutiny and potentially inviting external interference.

5.2 *Structural Constraints on Regional Economic Development*

5.2.1 *Inefficiencies in Port Economies*

Cumbersome policy implementations have inflated economic costs. For instance, at the Mohan Port, intricate document verification processes extended clearance times by an average of 23 minutes per transaction compared to pre-China-Laos railway operations, culminating in an estimated annual logistics cost increase of approximately 120 million yuan. Similarly, the China-Myanmar oil and gas pipeline project experienced cumulative delays of 147 days due to

restrictions on border labor input, resulting in direct economic losses exceeding 80 million yuan.

5.2.2 *Disruption of Cross-Border Industrial Chains*

In Dehong Prefecture, protracted approval cycles for border labor permits—averaging 45 days—have led to seasonal labor shortages of up to 30%, hindering the scalability of key industries like rubber and sugarcane.

5.2.3 *Distortion of Border Trade Development*

Policy shortcomings have fostered a "grey economy" ecosystem. In Honghe Prefecture, small-scale border trade, facilitated by tax incentives and lax supervision, has seen smuggling activities—resembling "ant moving" operations—constitute up to 40% of trade volume, compressing profit margins for legitimate enterprises below 5%. This not only disrupts market order but also undermines national strategies like the China-Laos Economic Corridor.

5.3 *Escalation of Social Governance Costs*

5.3.1 *Overburdened and Exclusionary Public Services*

Cross-border families face systemic discrimination in accessing education and healthcare. In Mengla County, 2022 statistics revealed that only 58% of children from cross-border marriages were enrolled in schools, with 72% of medical expenses borne out-of-pocket due to ineligibility for local health insurance. The rigid policy stance on identity recognition, primarily based on household registration, impedes social integration and exacerbates ethnic tensions.

5.3.2 *Inefficient Allocation of Law Enforcement Resources*

Departmental silos in policy execution lead to resource wastage. In Ruili City, lack of information sharing among 12 departments—including public security, border inspection, and customs—resulted in a 30% rate of redundant case handling and extended average case resolution times by 15 days. Moreover, the disproportionate ratio of law enforcement personnel to border residents shifts the focus towards reactive measures, undermining preventive governance capabilities.

5.4 Weakening of International Cooperation and Regional Trust

5.4.1 Legal Disparities and Trust Deficits

Significant differences in border management legal frameworks between China and neighboring countries, such as Myanmar and Laos, hinder effective cooperation. For example, Myanmar permits border residents to use traditional handwritten passes, whereas China mandates electronic documentation, leading to daily verification conflicts for approximately 2,000 individuals at the Ruili Port. Such frictions erode the foundation for regional collaboration, with Yunnan Province's cross-border joint law enforcement success rate falling below 40% in 2022.

5.4.2 Erosion of Cultural Security and Soft Power

Restrictions on cross-border cultural activities, like the Dai ethnic group's Water-Splashing Festival in Gengma County, due to participant identity limitations, impede cultural transmission and diminish China's cultural influence in Southeast Asia. Additionally, the persistent "Three Illegals" issues (illegal entry, residence, and employment) in border areas have been sensationalized by Western media as human rights concerns, tarnishing the nation's image.

6. COLLABORATIVE GOVERNANCE PATHWAYS FOR ENHANCING YUNNAN'S BORDER ENTRY-EXIT MANAGEMENT POLICIES

With the rapid socio-economic development of border regions, traditional border resident management models must evolve to address the complex demands of cross-border trade, personnel movement, and security control. Yunnan, as China's strategic hub for South and Southeast Asia, is actively exploring digital-centric governance innovations. By leveraging technological empowerment and institutional reforms, the province aims to establish a more efficient and secure border entry-exit management system. The integration of electronic border resident permits, biometric technologies, blockchain-based identity authentication, and intelligent surveillance networks not only transforms the border crossing

experience but also fosters data sharing and collaborative governance, injecting new momentum into the high-quality development of border areas. This transformation aligns with the national "Digital China" strategy and represents an optimal approach to modernizing frontier governance.

6.1 Implementation of the "Digital Border Resident" Governance Model

The "Digital Border Resident" model is a digital management approach tailored for border regions, aiming to optimize traditional lifestyles and trade practices through technological means, thereby enhancing governance efficiency and economic development. Traditionally, border residents are long-term inhabitants near national boundaries, often benefiting from policy incentives like duty-free small-scale trade and relying on border commerce and cross-border activities for their livelihoods. The digital model integrates these traditional identities with modern technologies, restructuring trade processes, identity verification, and public services. Key components include:

6.1.1 Digital Identity Authentication

This includes replacing paper-based documents with electronic border resident permits accessible via mobile applications, facilitating streamlined border crossings and cargo declarations, and reducing manual inspections (e.g., Yunnan's "Border Mutual Access" App).

6.1.2 Biometric Verification

It is to utilize fingerprint and facial recognition technologies at border checkpoints to expedite clearance procedures.

6.1.3 Intelligent Management

The management should employ data-sharing platforms that consolidate customs, taxation, and logistics information to achieve comprehensive supervision of border trade processes (e.g., Guangxi's "Border Resident Mutual Market System"), thereby enhancing trade efficiency.

6.2 Institutional Innovations

6.2.1 Dynamic Identity Authentication Systems

It is necessary to propose the adoption of blockchain technology to establish "Cross-Border Digital Identity Archives," integrating 18 data dimensions, including biometric identifiers (iris, fingerprints) and cross-border transaction records. Pilot implementations in Lincang City have demonstrated a 91% reduction in document misuse rates.

6.2.2 Differentiated Policy Frameworks

It is also necessary to advocate for the segmentation of border areas into red, yellow, and blue control zones based on risk assessments, with the "Cross-Border Community" management model piloted in blue zones. The Mengding Town pilot in Gengma County reported a 47% increase in cross-border marriage registrations under this model.

6.3 Technological Empowerment Strategies

6.3.1 Intelligent Border Surveillance Networks

There is a must to deploy 5G-enabled smart watchtower systems in challenging terrains like the Nuijiang Gorge, and integrate radar monitoring, drone patrols, and AI-based image recognition. Test data indicates a 98.7% accuracy rate in detecting illegal crossings, with response times reduced to 32 seconds.

6.3.2 Development of Big Data Early Warning Platforms

There is also a must to consolidate data resources from 12 departments, including customs, border inspection, and public security, to construct cross-border personnel risk assessment models. During the 2023 trial phase, the platform successfully issued 327 alerts for high-risk cross-border movements.

7. CONCLUSION

In the context of globalization and regional integration, Yunnan's border entry-exit management policies serve as a microcosm of China's modernization of national governance at its

frontiers. While these policies have effectively facilitated cross-border mobility, ensured border security, and promoted economic development, they also reveal deep-seated issues such as outdated legal frameworks, insufficient governance capacities, and imbalanced cross-border cooperation. The root causes of these deficiencies lie not only in fragmented legislation and enforcement challenges but also in complex geographical conditions, cultural tensions among cross-border ethnic groups, and institutional barriers to international collaboration. These challenges propagate through various channels, including security risk transmission, economic inefficiencies, overburdened social governance, and weakened international trust, posing systemic threats to national security and regional development.

To address these multifaceted challenges, it is imperative to establish dynamic policy evaluation mechanisms, transitioning from reactive defense to proactive governance paradigms. The modernization of frontier governance necessitates redefining national sovereignty and constructing a new global governance order. Only by aligning policy optimization with the values of a shared human destiny can a dynamic balance between security and development, sovereignty and openness, and efficiency and equity be achieved, thereby crafting a Chinese solution to frontier governance in the new era.

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