

Analysis and Research on the Experiences of the China-Myanmar Oil and Gas Pipeline Project

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Abstract. This paper focuses on the China-Myanmar Oil and Gas Pipeline project. Through a comprehensive review of the project's background, construction process, and operational status, it aims to analyze both the successes achieved and the challenges encountered during its implementation. The goal is to distill valuable lessons that can inform future transnational energy cooperation between China and Myanmar. The pipeline has played a significant role in enhancing regional energy interconnectivity and fostering economic development. However, it has also faced challenges related to political instability, regional conflicts, and public opinion. Based on this analysis, the paper summarizes transferable experiences from the pipeline project for broader Sino-Myanmar energy collaboration. It is hoped that these findings will provide reference for similar energy cooperation projects under the Belt and Road Initiative and for the development of the China-Myanmar Economic Corridor.

Keywords: China-Myanmar Oil and Gas Pipeline, China-Myanmar Energy Cooperation, Energy Security.

1. Introduction

1.1. Research Background and Rationale

Strategically, the China-Myanmar Oil and Gas Pipeline stands as one of the most crucial energy cooperation projects between China and Myanmar. It underpins bilateral economic and trade relations, regional energy connectivity, and serves as a key component of the Belt and Road Initiative. Recognized as one of China's "Four Major Oil and Gas Strategic Channels," it is also integrated into the China-Myanmar Economic Corridor framework.

For China, the pipeline helps reduce dependence on the Strait of Malacca for energy transport, thereby optimizing China's energy import structure and enhancing its energy security. It has also effectively stimulated economic development in southwestern China, creating new industrial opportunities for regions like Yunnan. [1] For Myanmar, the project primarily provides the government with transit fee revenue, boosting its fiscal income. In terms of employment, the project created a considerable number of jobs along its route. Furthermore, participation in this multinational energy project has elevated Myanmar's standing and international cooperation capabilities in regional and global affairs [2], although the tangible benefits for its domestic energy development capacity and infrastructure upgrades require further observation and study.

However, the construction of the China-Myanmar Pipeline is not merely an economic venture; it involves complex political, social, and security factors. International perspectives on the project are divided. Some Western countries and non-governmental organizations argue that it may exacerbate internal wealth disparities in Myanmar, lead to environmental damage, and impact the country's energy sovereignty. Additionally, security conditions along the pipeline route are complex, with activities of various armed groups posing threats to its safe operation. Despite these numerous challenges, the operational experience of the China-Myanmar Pipeline holds significant reference value for other transnational energy projects under the Belt and Road Initiative. Key questions worthy of in-depth study include how to advance energy cooperation in complex political environments, balance the interests of the host country with the commercial objectives of investors, and effectively manage social and environmental risks.

1.2. Research Significance

This paper aims to analyze the experiences and challenges of the China-Myanmar Pipeline from multiple perspectives, incorporating viewpoints from China, Myanmar, and the international community to discuss its success factors and shortcomings, thereby extending the relevance of its lessons learned. The research significance is twofold:

Theoretical Significance: To contribute to the theoretical study of transnational energy cooperation within the Belt and Road context, particularly exploring aspects of energy geopolitics, regional economic cooperation, and corporate social responsibility. By analyzing the project's challenges and experiences, it aims to provide policy recommendations for future China-Myanmar energy cooperation and similar transnational infrastructure projects, optimizing cooperation models.

Practical Significance: To explore how to promote sustainable energy cooperation in environments characterized by complex social structures and high political risks in host countries, offering practical experience for Chinese enterprises investing in Myanmar and other developing nations in the future.

1.3. Literature Review

1.3.1 Domestic Literature Review

Chinese scholars primarily study the China-Myanmar Pipeline from perspectives of energy security, geopolitics, and economic impact. Some research discusses how the pipeline optimizes China's energy import structure, reduces transport risks, and emphasizes its importance to the Belt and Road Initiative and the China-Myanmar Economic Corridor [3, 4]. Compared to international studies, domestic research less frequently addresses Myanmar society's response to the project, particularly in-depth analysis of actual benefit distribution for Myanmar citizens, environmental impacts, and social acceptance.

1.3.2 International Literature Review

International scholars and Western think tanks focus on different aspects of the China-Myanmar Pipeline, often examining the project's impact on Myanmar's society, politics, and environment from the host country's perspective. For instance, some studies contend that while the project provides revenue for the Myanmar government, lack of transparency in fund distribution means local communities do not fully benefit; instead, social conflicts arise due to land acquisition and ecological damage [5, 6]. Furthermore, criticism from Western environmental organizations centers on inadequate environmental assessment and insufficient ecological restoration efforts, arguing that Chinese enterprises have not invested enough in environmental protection measures.

1.4. Research Objectives

This study aims to systematically analyze the experiences and challenges of the China-Myanmar Pipeline, dialectically integrating different domestic and international research perspectives to summarize the project's successes and shortcomings, and propose targeted optimization suggestions. Specific objectives include:

Summarize the successful experiences and lessons learned from the China-Myanmar Pipeline, combining views from China, Myanmar, and the international community, to provide reference for future similar transnational energy cooperation projects.

Analyze the main challenges faced during the pipeline's construction, including political risks, social stability issues, and environmental controversies, exploring their underlying causes and potential countermeasures.

Propose policy recommendations for optimizing China-Myanmar oil and gas cooperation, particularly in risk management, social communication, and environmental governance, offering practical insights for transnational energy cooperation along the Belt and Road and beyond.

1.5. Research Methods

To ensure scientific rigor and comprehensiveness, this study primarily employs the following research methods:

Literature Analysis: Collecting domestic and international research literature, government reports, news articles, etc., on the China-Myanmar Pipeline and similar transnational energy projects, systematically organizing existing findings, and summarizing core viewpoints from different perspectives.

Case Study Method: Using the China-Myanmar Oil and Gas Pipeline as the core case to analyze experiences and problems during its construction and operation.

Visualization Methods: Using maps, charts, and other means to display the pipeline's geographical route, key data, etc., making related information more intuitive.

2. Experience Analysis of the China-Myanmar Oil and Gas Pipeline

2.1. Overview of the China-Myanmar Oil and Gas Pipeline

2.1.1 Route and Basic Information

The China-Myanmar Oil and Gas Pipeline consists of parallel crude oil and natural gas lines. The crude oil pipeline is approximately 771 km long, traversing complex terrain with significant river crossings, large elevation changes, high pressure, and numerous U-bends. The Nujiang River crossing alone has a drop of 1,500 meters, making it one of the most complex liquid pipelines internationally in terms of operational control [7]. It starts at Kyaukpyu Port on Myanmar's west coast, passes through Rakhine State, Magway Region, Mandalay Region, Shan State, and enters China at Ruili City, Yunnan Province, extending to Kunming. The natural gas pipeline is about 793 km long, also starting at Kyaukpyu Port, passing through several Myanmar provinces before entering China and terminating in Nanning, Guangxi. The gas pipeline has an annual designed capacity of 12 billion cubic meters, with 20% supplied to Myanmar and 80% transmitted to China, primarily meeting energy demand in southwestern China. The crude oil pipeline has an annual designed capacity of 22 million tons, accounting for approximately 5% of China's daily import needs, mainly transporting crude oil from the Middle East and Africa to southwestern China via Myanmar.



Figure 1. China-Myanmar Oil and Gas Pipeline [8]

2.1.2 Project Timeline

The pipeline's history dates back to 2005 when China and Myanmar began exploring its feasibility. Key milestones include the Framework Agreement on Strengthening Energy Cooperation signed in July 2005, the Talks Summary on Oil and Gas Cooperation in January 2008, and the formal Project Cooperation Agreement signed in Naypyidaw in March 2009, marking the official launch. Construction commenced in June 2010. After three years of work, the natural gas pipeline was completed first in May 2013 and officially began operations in October 2013. The crude oil pipeline finally began operations in April 2017. The entire project took seven years to complete, overcoming complex geological conditions, political risks, and socio-environmental challenges [9].

2.1.3 Investment Model and Financing Mechanism [10]

The project utilizes a Build-Operate-Transfer (BOT) model, jointly invested by Chinese and Myanmar entities. China National Petroleum Corporation (CNPC) is the major investor, with the Myanmar government and local enterprises holding minority shares. Construction was led by Chinese companies, with the Myanmar government providing policy support and oversight. Operation is managed by the Chinese consortium, with the Myanmar government receiving transit fees, equity returns, and gas supplies per agreement. A future transfer (full or partial) to Myanmar entities is planned after a certain period.

Two Special Purpose Vehicles (SPVs) were established for the pipelines: Southeast Asia Oil Pipeline Co., Ltd. (SEAOP) (Table 1) and Southeast Asia Gas Pipeline Co., Ltd. (SEAGP) (Table 2):

Table 1. Southeast Asia Oil Pipeline Co., Ltd. (SEAOP)

Company Name	Equity Stake (%)
China National Petroleum Corporation - Southeast Asia Pipeline Company (CNPC-SEAP)	50.9
Myanma Oil and Gas Enterprise (MOGE)	49.1

Table 2. Southeast Asia Gas Pipeline Co., Ltd. (SEAGP)

Company Name	Equity Stake (%)
China National Petroleum Corporation - Southeast Asia Pipeline Company (CNPC-SEAP)	50.9
Daewoo International Corporation	25.04
Oil and Natural Gas Corporation Videsh Ltd. (ONGC Videsh Ltd.)	8.347
Myanma Oil and Gas Enterprise (MOGE)	7.365
Gas Authority of India Limited (GAIL India Ltd.)	4.1735
Korea Gas Corporation (KOGAS)	4.1735

2.2. Successful Experiences of the Pipeline

As a crucial energy cooperation project under the Belt and Road Initiative, the China-Myanmar Oil and Gas Pipeline has achieved success not only in infrastructure construction and energy supply but has also accumulated valuable experience in transnational cooperation, mutual economic benefits, and regional stability. The following analysis of the project's successful experiences will focus on two aspects: the transnational cooperation coordination mechanism and its regional demonstration effect.

2.2.1 Multinational Coordinated Cooperation Mechanism

The construction of the China-Myanmar Oil and Gas Pipeline involved multiple countries and enterprises, including six companies from four nations: China, Myanmar, India, and South Korea. This established a cooperative model characterized by transnational investment and collaborative operation. This multilateral cooperation model not only helped reduce the investment risks for individual countries or companies but also ensured diversified funding sources for the pipeline's construction, balanced distribution of benefits, and internationalized operational management, thereby enhancing the project's sustainability. It effectively hedges against risks arising from political and economic instability within the region. This approach offers multiple advantages: it alleviates financial pressure, shares risks, and guarantees a stable and reliable natural gas supply. The participation of Indian and South Korean companies also helps, to some extent, mitigate unnecessary international criticism.

2.2.2 Demonstration Effect and Model for Regional Cooperation

The China-Myanmar Oil and Gas Pipeline was the first international energy corridor to become operational under the Belt and Road Initiative, providing valuable reference experience for subsequent China-Myanmar transnational energy cooperation. The pipeline's construction and operation not only spurred development in the regions along its route but also facilitated the implementation of other infrastructure projects, such as the Kyaukpyu Special Economic Zone. Beyond oil and gas transportation, the project also contributed to the improvement of Myanmar's domestic infrastructure, including roads, power grids, and telecommunications.

The pipeline's construction and operation have not only elevated the level of energy cooperation between China and Myanmar but also had a profound impact on the regional economy and energy supply chain. It drove the construction of local infrastructure in Myanmar, promoting the development of public facilities like roads and power supply. The project created over 2.9 million employment opportunities, with Myanmar nationals filling 80% of the positions during the operational phase, some of whom have advanced to management roles. According to 2019 data, 282 social responsibility projects were implemented along the pipeline route, with an investment of USD 27 million directed towards initiatives improving education, healthcare, roads, electricity, and other areas related to people's livelihoods, directly benefiting 900,000 people [11]. The demonstration effect of the China-Myanmar Oil and Gas Pipeline offers reference experience for cross-border energy cooperation to other Southeast Asian countries (such as Thailand, Laos, and Vietnam). Through this project, China has demonstrated how to advance mutually beneficial energy cooperation in a host country characterized by complex political dynamics and diverse interests.

2.3. Major Challenges Analysis

As a flagship project of energy cooperation between the two countries, the China-Myanmar Oil and Gas Pipeline, while significant in terms of economics and energy security, also faces challenges that cannot be ignored during its construction and operation. Analyses from domestic Myanmar research reports and international observers indicate that the project is contentious primarily in areas such as fiscal transparency, political and security risks, social stability, and environmental impact.

2.3.1 Armed Conflict and Security Threats

In recent years, the ongoing escalation of armed conflict within Myanmar has increasingly deteriorated the security situation along the route of the China-Myanmar Oil and Gas Pipeline. Since the Myanmar military junta came to power in 2021, Ethnic Armed Organizations (EAOs) have continued to expand, gaining control over several strategic areas such as Shan State, Kachin State, and Rakhine State, which are precisely the main regions traversed by the pipeline. Following the "October 27" incident in 2023, EAOs intensified their offensives against the government military, occupying multiple important towns including Lashio, directly threatening the stability along the pipeline route. Armed groups such as the Arakan Army (AA), Kachin Independence Army (KIA), and Ta'ang National Liberation Army (TNLA) all possess the capability to launch attacks against the pipeline and related facilities. Since 2021, multiple security incidents have occurred along the pipeline: for instance, the pipeline control center in Mandalay Region was struck by artillery shells, and facilities in Rakhine State have also faced explosion threats. Although EAOs have not yet systematically targeted the China-Myanmar Pipeline for attacks, the risk of the pipeline facilities being affected persists as armed conflict prolongs.

Furthermore, competition for influence among different EAOs and countermeasures by the Myanmar military junta add to the uncertainty. To defend strategic cities like Mandalay and Yangon, the Myanmar military may further strengthen its military deployments along the pipeline route, while EAOs, seeking to consolidate their gains, might continue their advances, leading to further deterioration of the security situation along the pipeline. Addressing these challenges will likely necessitate the investment of additional resources to enhance military protection and security patrols, mitigating potential conflict impacts. High security investments will significantly increase the

project's operational costs and may provoke external questioning regarding corporate social responsibility and the pipeline's legitimacy [12].

2.3.2 Political Instability and Policy Changes

The instability of Myanmar's political situation constitutes another major risk affecting the long-term operation of the China-Myanmar Oil and Gas Pipeline. Following the February 2021 coup, the legitimacy of the Myanmar military junta has been questioned, and the international community has imposed multiple rounds of economic and political sanctions, particularly restrictive measures targeting Myanmar's energy sector. For example, according to a VOA report, the United States began imposing sanctions on the Myanmar Oil and Gas Enterprise (MOGE) on December 15, 2023, restricting its cooperation with foreign enterprises [13]. Sanctions from Western countries could impact aspects of the China-Myanmar Pipeline such as settlement, insurance, and financing, further increasing the project's uncertainty. Concurrently, political instability makes the security conditions along the pipeline route even more unpredictable. The junta plans to hold a national election by the end of 2025 or early 2026. However, given the complex and volatile situation and the impact of an earthquake in 2025, advancing the election remains highly challenging, and Myanmar's politics are likely to remain turbulent. [14]

The long-term political turmoil in Myanmar affects the pipeline not only through security risks but also via policy instability. Due to the junta's deteriorating financial situation, it might adjust energy tax policies or increase controls over foreign enterprises, affecting the profit distribution of the pipeline project. Some public opinion within Western countries and international organizations also calls for scrutiny of the revenue flow from the China-Myanmar Pipeline, suggesting that it might be used for military expenditures by the junta. This trend in public opinion could lead to increased political pressure from the international community on the project, potentially affecting the future international cooperation environment. Therefore, the operators of the China-Myanmar Pipeline need to closely monitor developments in Myanmar's political situation and formulate corresponding risk response strategies. Simultaneously, enhancing cooperation with Myanmar's civil society and increasing the project's social acceptance are crucial to mitigating potential risks arising from political changes.

2.3.3 Negative Public Opinion Pressure

As a significant energy cooperation project between China and Myanmar, the China-Myanmar Oil and Gas Pipeline has played a positive role in promoting Myanmar's economic development and improving its energy supply. However, due to factors such as Myanmar's complex domestic political environment and an imbalance in discourse power in the international public opinion arena, the project has long faced negative public opinion pressure from international organizations, non-governmental organizations (NGOs), and some media outlets. This criticism mainly focuses on three aspects: transparency disputes, environmental concerns, and resettlement contradictions. Although some criticisms involve exaggeration or selective reporting, they still negatively impact the project's public image and progress.

(1) Transparency Controversies

Transparency is one of the most scrutinized controversies surrounding the China-Myanmar Pipeline project in both domestic Myanmar and international discourse. The Myanmar government has long faced domestic and international scrutiny regarding the project's financial management and revenue distribution. According to the agreement, the Myanmar government receives approximately USD 150 million annually in transit fees from the pipeline. However, insufficient disclosure of financial data makes it difficult for the public to monitor the specific flow of these funds. Myanmar civil society widely believes that these benefits are primarily concentrated at the central government level, while local governments and communities along the pipeline route, such as those in Kachin State and Rakhine State, receive extremely limited direct economic returns. This unequal distribution leads some citizens to view the project as failing to genuinely benefit local societies and instead exacerbating regional development disparities.

The international community has repeatedly accused the Myanmar Oil and Gas Enterprise (MOGE) of chronically lacking transparent oversight, suggesting that MOGE's revenues might flow to the Myanmar military, thereby indirectly supporting the junta's financial system. As a project partner, such allegations further politicize the China-Myanmar Pipeline project in international discourse.

China, as the major investor, also faces public opinion pressure concerning revenue distribution and the fulfillment of social responsibilities. Some Myanmar civil organizations criticize Chinese enterprises for insufficient transparency in processes like land acquisition and economic compensation, alleging a failure to fully protect the rights of affected groups. Some residents along the route report significant disparities in compensation amounts across different areas and a lack of openness in the negotiation process. Although the project parties provided short-term compensation, some farmers who lost land struggled to find alternative livelihoods, leading to accumulated subsequent conflicts. These transparency issues not only affect the recognition of the project among the Myanmar populace but also constitute a main point of criticism in international discourse.

(2) Environmental Controversies

Environmental issues have consistently been a major criticism point from international NGOs targeting the China-Myanmar Pipeline project. Some environmental organizations with Western backgrounds have long published critical reports on the project, primarily alleging insufficient Environmental Impact Assessments (EIA), claiming that the early-stage EIA did not fully consider potential risks to ecologically sensitive areas, and accusing the pipeline construction of causing soil erosion, deforestation, and other problems.

However, these criticisms often lack support from objective data and overlook mitigation measures already taken by the project parties. During construction, the Chinese side strictly adhered to EIA requirements, implementing environmental protection measures such as slope reinforcement, vegetation restoration, and wildlife protection. The Myanmar government, jointly with Chinese experts, conducts regular environmental monitoring, and no major pollution incidents have occurred to date. It is noteworthy that political motives often underlie environmental controversies. Taking the Myitsone Dam project as an example, the publicly stated reason for its suspension was "environmental risks," but the actual reasons involved Myanmar's domestic political maneuvering and intervention by international forces [15].

There is significant divergence within Myanmar society regarding balancing environmental protection and development. Environmental groups emphasize protecting pristine ecosystems and oppose large-scale infrastructure projects, while the government and business communities face the practical pressures of power shortages and underdeveloped infrastructure, urgently needing energy projects to drive economic growth. This contradiction leads to vacillation in Myanmar's energy policies. Some energy projects influenced by environmental public opinion have been suspended, but alternative solutions cannot quickly fill the demand gap, instead exacerbating the power crisis and economic stagnation.

(3) Resettlement Issues

Resettlement is a particularly challenging practical problem in the project. Although China and Myanmar established compensation standards in the agreement, corruption among local officials and poor implementation have intensified conflicts. While deterioration could have been avoided through more transparent management and supervision, in some areas, compensation funds were not fully disbursed to affected residents but were instead intercepted by local governments or intermediate links. For instance, on March 22, 2018, approximately 1,000 farmers in Ann Township, Rakhine State, protested against the China National Petroleum Corporation (CNPC) and the Myanmar Oil and Gas Enterprise (MOGE), citing failure to compensate for destroyed farmland and plantations. Before the protest, the farmers had submitted applications to the Rakhine State government seeking compensation for the damaged farmland, plantations, and pastures. The government subsequently conducted field investigations and agreed to provide compensation. However, the protesters claimed they still did not receive any compensation afterwards.

Resettlement issues are also a key subject of amplification by international NGOs and media. Western media often generalize individual cases into "systematic human rights violations." Such reporting further erodes the trust of the Myanmar people in the project and can even be exploited by anti-government armed groups to incite resistance against Chinese-funded projects. As early as September 2009, Western media collaborated with the exiled Myanmar organization "Shwe Gas Movement" to publish a report titled "Corridors of Power," alleging that the pipeline would pass through many villages in Myanmar, causing problems of forced relocations, environmental destruction, and human rights violations, casting a long shadow over the pipeline's construction [16].

3. Lessons from the China-Myanmar Pipeline Experience

The successful experiences and challenges faced by the China-Myanmar Oil and Gas Pipeline project provide important lessons for other transnational infrastructure construction. It has accumulated valuable experience particularly in multilateral cooperation mechanisms, infrastructure connectivity, ecological protection, risk prevention and control, corporate social responsibility, and technology and management. In the future, under the Belt and Road Initiative and other international cooperation frameworks, cooperating enterprises can fully absorb these experiences, optimizing policy design, technological innovation, and social communication to promote more efficient and sustainable international cooperation models, making greater contributions to regional economic development and energy security [17].

3.1. Lesson 1: Mechanism Innovation in Multilateral Coordination and Strategic Cooperation

The smooth construction of the China-Myanmar Pipeline relied heavily on highly coordinated high-level strategic cooperation between the Chinese and Myanmar governments. From the early planning stages, the project received significant attention from both governments, and a series of bilateral agreements and policy support provided solid political and legal guarantees for its implementation. During the project's advancement, investments from South Korea and India also joined. Against the complex geopolitical background of the host country, the project background involving "four countries and six parties" effectively provided guarantees for the pipeline's safe operation. This experience demonstrates that transnational infrastructure construction requires efficient inter-governmental communication and coordination mechanisms. Future similar projects should conduct early planning regarding policy support, legal frameworks, and interest coordination, while incorporating more stakeholders to ensure the transparency and enforceability of the cooperation mechanism, thereby enhancing the project's sustainability and feasibility.

3.2. Lesson 2: The Demonstrative Effect of Promoting Infrastructure Connectivity

The China-Myanmar Oil and Gas Pipeline is not merely an energy transportation route; it also significantly promoted the improvement of infrastructure in regions along its path. During the pipeline's construction, infrastructure such as roads, bridges, and ports in multiple towns along the route were upgraded, improving local transportation conditions in Myanmar and enhancing regional logistics efficiency. Additionally, supporting facilities like communications and power were also improved, creating better conditions for economic development along the route. This experience indicates that transnational infrastructure projects should not only focus on their own construction goals but also fully consider how to drive economic development in the regions along the route through infrastructure connectivity. In the future, during economic corridor construction, governments and enterprises can draw on this model to promote coordinated development in multiple fields such as energy, transportation, and communications, forming a comprehensive infrastructure network. This will enhance the process of regional economic integration and create more development opportunities locally.

3.3. Lesson 3: Ecological Environmental Protection and Sustainable Development

The experience related to ecological environmental protection during the construction of the China-Myanmar Oil and Gas Pipeline indicates that future similar projects should pay more attention to environmental management, strictly adhere to international environmental standards, adopt clean energy technologies, energy-saving and emission-reduction measures, and green construction plans. While achieving economic benefits, they must ensure the sustainable development of ecosystems and improve the project's social acceptance. A series of measures can be taken to reduce the impact on the ecosystems along the route. Particularly, strict Environmental Impact Assessments should be conducted and publicly disclosed during the early project planning stage, ensuring that project site selection avoids ecologically sensitive areas as much as possible to reduce environmental damage during construction. Furthermore, an independent third-party environmental audit mechanism can be introduced to continuously monitor the project's environmental impact, and an ecological restoration fund can be established for use in affected areas.

3.4. Lesson 4: Deepening Political and Social Risk Prevention and Control

The long-term stable operation of the China-Myanmar Oil and Gas Pipeline and other energy cooperation projects requires closely tracking changes in Myanmar's political situation, flexibly adjusting strategies, and maintaining effective communication with various political forces [18]. Although the People's Defense Forces (PDFs) currently do not pose a direct threat to the pipeline, future risks cannot be ignored. There is also a need to focus on reducing the influence of external forces on the local population. In terms of public opinion, as the Myanmar public has long been influenced by Western discourse systems, some groups are wary of Chinese investment. Moreover, anti-China forces exploit issues like China's participation in combating telecom fraud and mediating ethnic conflicts to shape a negative image, creating public opinion pressure for Chinese enterprises operating in Myanmar. Therefore, enterprises should focus on solving local practical problems, promoting community welfare and infrastructure improvement to gain societal understanding. Simultaneously, they should enhance their ability to respond to policy changes in Myanmar and international public opinion pressure, ensuring the robust operation of the project.

3.5. Lesson 5: Strengthening Corporate Social Responsibility and Community Participation

Enterprises involved in transnational infrastructure construction bear not only economic responsibilities but also need to fulfill social responsibilities to win the support and trust of the local populace. During the construction of the China-Myanmar Pipeline, the project parties actively practiced corporate social responsibility, establishing good cooperative relationships with communities along the route. For example, the project parties provided employment opportunities, prioritizing the hiring of local labor, thereby helping to improve local employment conditions. Additionally, enterprises invested in building schools, hospitals, and basic public facilities, enhancing the living standards of local residents and demonstrating a positive role in sustainable development. This experience shows that future transnational energy projects need to pay more attention to building corporate social responsibility, strengthening interaction with local communities, establishing effective communication mechanisms, and promptly responding to local residents' concerns. At the same time, enterprises should actively participate in community development projects, such as education, healthcare, and infrastructure construction, to enhance their social image and ensure the long-term stable operation of the project [19].

3.6. Lesson 6: Emphasizing People-to-People Exchange and Long-Term Cooperation Mechanism Building

Myanmar's public attitude towards large foreign-funded projects is often characterized by distrust. However, the construction of similar transnational cooperation projects should not only aim to promote economic cooperation but also to foster cultural exchange and mutual understanding between the two peoples. To better advance transnational cooperation projects, both sides can deepen

mutual understanding and enhance cultural identity through educational and cultural exchange programs. Project enterprises should actively support vocational education in Myanmar, taking measures such as cooperating with local universities and training institutions, cultivating local technical talent, and increasing the proportion of local hires [20]. Simultaneously, through cultural exchange activities like cultural festivals, academic exchanges, and corporate open days, they can strengthen local people's identification with the project and reduce misunderstandings arising from cultural differences. This experience indicates that when promoting similar transnational projects, education, training, and cultural interaction should be incorporated into the planning to promote social integration, enhance the understanding and trust of the people in the cooperating country, and lay the foundation for the project's long-term stable operation.

4. Conclusion and Outlook

4.1. Main Conclusions

As a pilot project of the China-Myanmar Economic Corridor, the China-Myanmar Oil and Gas Pipeline has accumulated rich cooperative experience while also exposing several problems that need urgent resolution. Through efforts in multilateral coordination and strategic cooperation mechanisms, focusing on the spillover effects of regional development, enhancing risk prevention and public support, and promoting infrastructure connectivity, the pipeline has played an important role in achieving energy interconnection and regional economic development. However, its experiences in handling community relations and risk management also provide valuable warnings and directions for improvement for future projects.

The practice of the China-Myanmar Pipeline demonstrates that promoting the success of large transnational projects requires coordinating the interests of multiple parties at the strategic level, strengthening transparency and public support at the execution level, and ensuring environmental friendliness while balancing economic benefits at the technical level. These experiences provide valuable reference for other infrastructure construction within the China-Myanmar Economic Corridor, such as transportation, communications, and energy.

4.2. Future Research Directions

Future research directions include exploring how to achieve cross-project synergistic effects in different fields such as energy, transportation, and communications to enhance overall benefits. In-depth research is needed on how to solve complex issues of interest distribution and risk management in transnational projects through innovative multilateral cooperation mechanisms. And research on optimizing sustainable development strategies, exploring how to better balance economic development and environmental protection in transnational energy cooperation, and promoting the application of green energy technologies. Exploring how to enhance the sustainability and social acceptance of transnational energy projects through policy innovation and technological progress.

4.3. Prospects for Future China-Myanmar Cooperation

By employing green technology, innovative cooperation mechanisms, and environment-prioritizing strategies, China-Myanmar cooperation is expected to become a sustainable development model under the Belt and Road Initiative. Simultaneously, in future projects, further strengthening people-to-people exchanges, educational cooperation, and cultural identity building will enhance the stability of China-Myanmar relations and public support. Strengthening cultural exchanges and expanding non-governmental contacts are essential for promoting mutual understanding among the people of countries along the Silk Road, establishing the public opinion foundation for multi-faceted cooperation in the Silk Road economy and energy [21]. It is anticipated that the model and experiences of the China-Myanmar Economic Corridor can not only provide reference for other ASEAN countries but also potentially serve as a blueprint for China's transnational cooperation with

other developing countries, setting a benchmark for global regional cooperation and economic development.

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