

Research on China–Central Asia Vocational Education Cooperation from the Perspective of the “Belt and Road” Initiative

Abstract: Taking the “Belt and Road” Initiative as its strategic backdrop, this paper focuses on the evolutionary trajectory, current development status, and practical dilemmas of vocational education cooperation between China and the five Central Asian countries. It systematically examines the three-stage developmental path of bilateral cooperation—from initial exploration to accelerated development and qualitative upgrading—and analyzes the current multi-faceted cooperative framework characterized by the Luban Workshop as the flagship brand, industry-education integration alliances as institutional support, and “Chinese plus Vocational Skills” programs and school-enterprise collaboration as key implementation approaches. The study finds that although China–Central Asia vocational education cooperation has achieved remarkable progress, it still confronts three major structural dilemmas in the process of deepening collaboration: inadequate cooperation mechanisms, the coexistence of linguistic-cultural barriers and shortages of teaching staff and resources, and a complex geopolitical environment coupled with insufficient sustainability safeguards. To address these issues, this paper proposes optimization pathways from three dimensions: institutional supply, capacity building, and risk prevention and control. For China, this entails accelerating institutional supply for overseas school operation, establishing mechanisms for cultivating interdisciplinary teaching staff, and constructing a multi-dimensional funding guarantee and risk assessment system. For Central Asian countries, this involves enhancing policy stability, increasing investment in local teacher training and vocational education, and promoting a transformation of the cooperation model from “aid-driven” to “demand-driven”.

Keywords: “Belt and Road” Initiative; China–Central Asia Cooperation; Vocational Education; Luban Workshop; Industry-Education Integration

Against the backdrop of the deepening advancement of the “Belt and Road” Initiative, the Central Asian region, as the core area of the “Silk Road Economic Belt” and a pivotal hub for production capacity cooperation, finds that the quantity and quality of its technical and skilled personnel directly impact the depth and effectiveness of regional connectivity. Vocational education, as the type of education most closely linked to economic and social development, undertakes a vital mission in serving international production capacity cooperation, promoting the

interconnection of technical standards, and enhancing people-to-people bonds. In recent years, vocational education cooperation between China and Central Asian countries has made considerable headway. However, existing research has predominantly focused on descriptive analyses of cooperative achievements, while systematic examinations of cooperative dilemmas and scholarly explorations of optimization pathways remain relatively insufficient. Based on a review of the general development situation of vocational education in the five Central Asian countries and the history and current state of China–Central Asia vocational education cooperation, this paper conducts an in-depth analysis of the current dilemmas facing this cooperation and further proposes optimization pathways to promote its high-quality development.

I. Overview of Vocational Education Development in Central Asian Countries

The vocational education systems of the five Central Asian countries (Kazakhstan, Uzbekistan, Tajikistan, Kyrgyzstan, and Turkmenistan) are rooted in the institutional framework of the Soviet era. Over more than three decades of independence, each country has undertaken varying degrees of reform and adjustment based on differing national conditions, presenting a developmental landscape characterized by both commonalities and distinctive features. Building upon the foundation of the Soviet educational system, each country's system has gradually evolved in response to the demands of post-independence socio-economic development, forming multi-level and multi-type structural frameworks. While exhibiting certain commonalities and differences in specific tier divisions and institutional setups, these systems are primarily composed of two core levels—primary vocational education and secondary vocational and technical education—with some countries extending pathways for articulation into higher vocational education. In recent years, vocational education has occupied a significant position within the national education systems of Central Asian countries, yet development remains uneven across the region.

In terms of scale, Kazakhstan and Uzbekistan possess the largest vocational education systems. In the 2025-2026 academic year, Kazakhstan had 706 technical and vocational education institutions and 35 branches, enrolling 562,000 students, with a graduate employment rate of 60.4%; over the past five years, the number of institutions decreased by 2.5%, while student enrollment grew by 13.7%, indicating a concurrent trend of consolidation and expansion[1]. In the 2024-2025 academic year, Uzbekistan had 845 secondary specialized and vocational education institutions with 428,600 enrolled students. In 2021, approximately 79,000 students entered 339 vocational colleges or technical schools, while 160,000 students entered 555 vocational schools and 73 academic lyceums. The number of technical schools increased by 26.5% compared to 2021, whereas the number of colleges decreased by 20.1%, reflecting a systemic shift in focus from academic lyceums and colleges towards technical and vocational schools[2]. The scale of Tajikistan's vocational education system is relatively smaller. As of 2025, Tajikistan had a total of 188 vocational education institutions, including 65 vocational secondary schools (enrolling 23,469 students), 88 vocational colleges (59 public, 29 private, enrolling 89,570 students), and 35 adult learning centers (training 55,361 individuals in 2024)[3]. The scale of vocational education in Kyrgyzstan and Turkmenistan is even more limited. In 2025, Kyrgyzstan's national vocational secondary school enrollment was

approximately 27,900 students, graduating over 12,000 specialized technical personnel annually[4]. In the 2025-2026 academic year, Turkmenistan planned to enroll 27,661 students nationwide, comprising 16,782 in higher education institutions and 10,879 in secondary vocational education schools—an increase of 856 and 389 places respectively compared to the previous academic year[5]. Regarding curriculum and pedagogical reform, Central Asian countries have generally incorporated vocational education reform into their national development strategies in recent years, actively promoting the modernization of curriculum systems and teaching models with a core focus on aligning with international standards and labor market demands. Kazakhstan designated 2025 as the Year of Vocational Professions, aiming to comprehensively enhance the quality and level of vocational education through systematic reform. Over the past decade, the country has achieved leapfrog development in technical and vocational education and training (TVET) by integrating WorldSkills occupational standards into national policies, institutional curricula, and assessment systems. Statistics indicate that approximately 8,000 educational programs have been developed based on occupational, national, and WorldSkills standards, with plans for colleges and employers to jointly develop over 2,000 additional programs in 2025 and arrange internships in production enterprises for 1,500 teachers[6]. Uzbekistan is accelerating systemic reforms; in October 2024, a presidential decree established a unified network of technical schools, granting them autonomy to adjust up to 30% of curriculum content within allocated teaching hours starting from the 2025/2026 academic year. In October 2025, the President of Uzbekistan signed the Decree “On Measures to Improve the Efficiency of Vocational Education System Management”, setting key reform target indicators for 2030. With support from the Asian Development Bank, Tajikistan is promoting competency-based teaching and learning, with 960 teachers receiving relevant training and modular curriculum reform covering 21 vocational institutions, while simultaneously introducing competency-based training (CBT) methods and developing competency standards and assessment tools for 17 occupations. Kyrgyzstan is focusing on building its qualifications certification system, establishing an Independent Center for Certification and Validation in 2023, creating a register of professional standards, developing over 400 assessment tools, and conducting skills certification for 28 occupations. In October 2025, Turkmenistan approved the “Strategy for the Development of Higher Vocational Education for 2026-2052”, promoting the application of digital technologies and artificial intelligence in teaching, advancing the modernization of teaching activities through national and international accreditation, and aiming to include its universities in international academic rankings. In terms of international cooperation, Central Asian countries actively expand partnerships with international organizations, forming a diverse and open international cooperation landscape. At the multilateral level, the European Union is a significant partner in Central Asian vocational education cooperation. The EU-funded €10 million DARYA project is the first regional initiative specifically supporting skills development for Central Asian youth, covering Kazakhstan, Kyrgyzstan, Turkmenistan, and Uzbekistan. The fourth DARYA Senior Officials' Meeting was held in Turin in October 2025, attended by Deputy Ministers of Education and Labor from Central Asian countries and representatives of EU institutions, reaching consensus on topics such as a regional skills roadmap and aligning education with labor market needs. The Asian Development Bank also continues to promote CAREC regional green skills cooperation,

supporting capacity building in green economy and digital skills domains. At the bilateral level, Kazakhstan's cooperation with Germany is particularly close. Germany has become a leading partner in developing dual-system vocational education in Kazakhstan; the dual model has been implemented in over 400 Kazakh colleges, covering 80 specialties and 160 vocational qualifications, with German enterprises providing support in curriculum development, production internships, and teacher training. In 2025, both sides announced the joint establishment of an International Dual Education Center to further deepen industry-education integration. Leveraging linguistic and cultural advantages, Russia maintains strong influence in Tajikistan and Kyrgyzstan through joint training programs, Russian language training, and skills training for labor migrants. In October 2025, Russia and Tajikistan signed an agreement on labor migrant training, whereby the Russian Ministry of Education will directly participate in vocational training for Tajik citizens. Turkmenistan actively expands educational cooperation with Turkey, reaching multiple agreements in 2025 concerning scholarships in medicine and engineering, civil servant training, and summer schools.

Overall, the development of vocational education across the five Central Asian countries exhibits significant divergence in scale, convergence in reform pathways, and a multiplicity of cooperative partnerships. These countries are generally transitioning from scale expansion towards quality enhancement, yet disparities persist in the depth of reform and the adequacy of resource provision.

II. Current Status of China-Central Asia Vocational Education Cooperation from the Perspective of the “Belt and Road” Initiative

Vocational education cooperation between China and Central Asian countries has deepened in tandem with the progressive strengthening of bilateral relations, and its developmental trajectory is closely intertwined with the advancement of the “Belt and Road” Initiative. The launch of the “Belt and Road” Initiative in 2013 injected systemic momentum into this cooperation, ushering in a phase of scaled and institutionalized development. The issuance of the “Education Action Plan for Jointly Building the 'Belt and Road'” in 2016 articulated three major frameworks —“educational connectivity, talent cultivation and training, and the construction of Silk Road cooperation mechanisms”— thereby steering cooperation from fragmented projects toward systematic planning. A landmark achievement was the establishment of the Luban Workshop: the Tajikistan Luban Workshop officially commenced operations in November 2022, becoming the first of its kind in Central Asia and filling a gap in China-Tajikistan technical and vocational education collaboration. Concurrently, the deployment of Confucius Institutes in Central Asia laid a linguistic foundation; by the end of 2017, 13 Confucius Institutes and 22 Confucius Classrooms had been established across the region, forming a comprehensive Chinese language teaching network[7]. The scope of cooperation expanded from language training to encompass dimensions such as joint program development, textbook compilation, and teacher training. Institutions like the Tianjin Urban Construction Management and Vocation Technology College collaborated with Central Asian universities to co-author bilingual Chinese-Russian textbooks and developed 122 accompanying instructional video resources[8]. The convening of the China-Central Asia Summit in 2023 marked the entry of cooperation into a new phase of high-quality

development. The “Xi'an Declaration” explicitly called for “promoting the development of 'Luban Workshop' vocational education”, incorporating vocational education cooperation as a significant outcome within the framework of heads-of-state meetings[9]. This phase exhibits three major characteristics: first, comprehensive expansion of coverage, with Luban Workshops already established in Tajikistan, Kazakhstan, and Uzbekistan, and projects in Kyrgyzstan and Turkmenistan progressing steadily; second, elevation of the cooperation level, characterized by the formation of a tripartite synergy mechanism involving “government guidance, institutional agency, and enterprise participation”, exemplified by the signing ceremony for joint cultivation through the tripartite Luban Workshop involving three institutions in China and Tajikistan, which established a new mechanism for articulated international cooperation spanning from diploma to bachelor's and master's degree levels; third, enhanced service capacity, with cooperative specialties closely aligned with Central Asian industrial demands, such as the transport equipment and technology program at the Kazakhstan Luban Workshop and the information technology and smart logistics focus of the Uzbekistan Luban Workshop.

Currently, China-Central Asia vocational education cooperation has evolved into a multi-faceted framework led by flagship brand projects, supported by platform alliances, and centered on industry-education integration. The Luban Workshop, as an original Chinese brand for vocational education internationalization, serves as the core vehicle for cooperation in Central Asia. As of April 2026, Luban Workshops have been established in all five Central Asian countries: Tajikistan's focuses on engineering surveying and thermal energy applications; Kazakhstan hosts three workshops, emphasizing transportation and artificial intelligence; Kyrgyzstan's specializes in water conservancy and hydropower; and Turkmenistan's is co-developed with petroleum-focused higher education institutions. Implementing the “Five-Industry Linkage” model and the Engineering Practice Innovation Project (EPIP) teaching methodology, Tianjin Vocational University has developed a teaching standard system comprising 135 course modules for Central Asia. The first Luban Workshop in Kazakhstan has cumulatively enrolled 400 undergraduate students for academic programs and provided vocational training to 349 individuals[10]. This model is transcending unidirectional skill transfer towards collaborative standard development. Firstly joint teacher cultivation. To address the issue of fragmented cooperation, alliance-building has emerged as a significant trend. The China-Central Asia Industry-Education Integration Alliance, established in 2025, initially incorporated over 40 institutions, enterprises, and research bodies from China and Central/West Asia, and launched a “Sail Plan” focusing on joint standard development and teacher enhancement[11]. The China-Central Asia Industrial Talent Development Alliance, also founded in the same year, aims to introduce China's “Excellence Engineer Education and Training Plan” to Central Asia and foster an ecosystem for industry-education integration. At the sub-national level, Jiangsu Province initiated the “Jiangsu-Central Asia Industry-Education Integration Alliance”, uniting 16 universities and 9 enterprises to establish an information-sharing platform. These alliances, together with mechanisms such as ministerial-level meetings, constitute a multi-tiered cooperation system. Chinese institutions actively address the needs of Chinese-funded enterprises in Kazakhstan, creating paradigms for collaborative talent cultivation between schools and enterprises. The Luban Workshop in Kazakhstan partnered with the China Automotive Engineering Research Institute (CAERI) and local enterprises

to co-establish a center for the promotion and application of intelligent connected vehicle technology. Tianjin Vocational University customized an artificial intelligence laboratory solution for L.N. Gumilyov Eurasian National University. The “Zheng He College” project in Jiangsu Province collaborates with enterprises such as Conch Cement to implement localized “Modern Apprenticeship” practices, successfully integrating professional standards into the catalog of the Ministry of Education of Uzbekistan, thereby achieving the “enrollment equals recruitment” model. The “Chinese plus Vocational Skills” model integrates language instruction with training in areas like cross-border e-commerce and intelligent manufacturing. In 2025, a training program for Central Asian talents commenced in Nanjing, and Xi'an Vocational and Technical College inaugurated a “Chinese plus Vocational” language training center in Kazakhstan. Furthermore, joint dual-degree programs abroad continue to expand, with Kazakh universities offering 254 dual-degree programs for international students. Overall, this cooperation is at a critical juncture, transitioning from scale expansion towards high-quality development, providing robust support for joint talent cultivation under the “Belt and Road” framework.

III. Dilemmas Facing China-Central Asia Vocational Education Cooperation from the Perspective of the “Belt and Road” Initiative

Although the “Belt and Road” Initiative has provided a broad platform for China-Central Asia vocational education cooperation, and significant achievements have been realized in policy alignment, project implementation, and joint talent cultivation, a series of dilemmas persist as cooperation deepens. These dilemmas involve both macro-level institutional deficiencies and geopolitical risks, as well as micro-level issues of resource matching and quality assurance, requiring serious attention from both sides in cooperative practice.

Firstly, the cooperation mechanism remains inadequate, characterized by deficiencies in top-level design and overall coordination capacity. Currently, China-Central Asia vocational education cooperation still faces problems of imperfect policy safeguards and a lack of coordination mechanisms. On China's side, despite the national rollout of the “Vocational Education Going Global” 2.0 strategy, designating Central Asia as a pioneering demonstration zone for vocational education internationalization, institutional obstacles persist in critical areas such as qualification approval for overseas school operation, asset and financial management, and teacher dispatch systems[12]. In the absence of a comprehensive national management regulation, vocational institutions often find themselves in a predicament of having “no established rules to follow” when operating abroad. Simultaneously, a unified coordination mechanism among different local governments and vocational institutions is lacking, leading to prominent issues of poor information sharing and resource fragmentation. Even when vocational institutions recognize the importance of the Central Asian market, they frequently face a situation of starting from scratch without clear guidance. On the side of Central Asian countries, although vocational education development has been incorporated into national strategies, the lack of a unified policy consultation platform and regular communication mechanisms during engagement with Chinese counterparts results in suboptimal precision in strategic alignment and objective coordination for cooperative projects. Some countries also present risks of project disruption due to regime changes or policy adjustments, and Chinese institutions lack effective risk

management mechanisms to cope with such uncertainties[13]. Furthermore, overseas vocational education cooperation projects currently suffer from regulatory gaps, lacking a unified quality assurance system and dynamic adjustment mechanisms, making it difficult to objectively assess the effectiveness of certain operational projects.

Secondly, linguistic and cultural barriers coexist with shortages of teaching staff and resources, resulting in weak soft power support for cooperation. From China's perspective, during the advancement of “Chinese plus Vocational Skills” education, Chinese institutions generally face challenges related to insufficient cross-cultural integration capacity. Chinese expatriate teachers must not only possess solid professional skills but also master the official or common languages of Central Asian countries (such as Russian or Kazakh), while understanding local cultural traditions and pedagogical norms. Such interdisciplinary bilingual teaching personnel are extremely scarce. In terms of teaching material development, the creation of localized bilingual textbooks suitable for learners in Central Asia lags behind, and cross-border articulation of curriculum standards remains in its nascent stages. Viewing the broader development of Luban Workshops across countries participating in the “Belt and Road” Initiative, international communication influence also requires enhancement. Currently, Luban Workshops face issues on international social media platforms, including insufficiently diverse communication actors, formulaic content production, and superficial audience reach. From the perspective of Central Asian countries, although demand for Chinese language education is growing, local Chinese language teaching generally suffers from imbalances and inconsistencies between scale and quality, and exchange and cooperation mechanisms remain underdeveloped[14]. Taking Kazakhstan as an example, the higher education sector lacks systematic curriculum resource development and sustainable teacher training mechanisms, with teachers exhibiting severe deficiencies in AI teaching capabilities. In training practice, Central Asian students commonly experience difficulties in listening, reading, and writing in both Chinese and English, significantly constraining teaching efficiency. Some Central Asian countries also face problems such as a “shortage of bilingual teachers and training equipment”, which constitute major bottlenecks restricting the modernization and upgrading of their local vocational education systems.

Thirdly, the geopolitical environment is complex, and sustainability safeguards are insufficient, exposing cooperation to both external risks and endogenous challenges¹⁶. On China's side, Western media often provide one-sided interpretations of China's overseas vocational education cooperation, focusing disproportionately on alleged cultural “export” while insufficiently reporting on the tangible effectiveness of Chinese vocational education in enhancing local workforce skills and promoting economic development. This subtly interferes with the receptiveness of some Central Asian countries towards Chinese projects. Concurrently, the international competitiveness of Chinese vocational education brands remains limited. Amidst intensifying competition in the international education market, brand distinctiveness and influence require further strengthening. Regarding financial support, overseas school operation projects generally face issues of insufficient sustained investment and lack diversified funding guarantee mechanisms primarily based on market-oriented operations. Most projects are heavily reliant on government special funds and possess weak self-sustaining capacity. From the perspective of Central Asian countries, located at the heart of the Eurasian landmass, the region experiences dynamic shifts in

its geopolitical environment against the backdrop of major power competition. External interference could potentially impact the stability and long-term viability of the region's cooperation with China, necessitating further consolidation of the cooperation foundation. The contradiction between regional industrial development potential and the scarcity of skilled talent is becoming increasingly acute, with talent gaps in relevant sectors emerging as critical bottlenecks for regional development. Moreover, the vocational education systems in some Central Asian countries are outdated; the types of talents produced are mismatched with labor market demands, and the quality of teaching and instructional equipment is uneven. This, to a certain extent, limits the localized implementation and scalable expansion of bilateral cooperation projects.

IV. Optimization Pathways for Promoting China-Central Asia Vocational Education Cooperation

Addressing the three major dilemmas currently confronting China-Central Asia vocational education cooperation—inadequate institutional mechanisms, weak soft power support, and insufficient sustainability—both sides must collaborate across dimensions of institutional supply, capacity building, and risk prevention and control to explore more targeted optimization pathways.

First, improve top-level design and overall coordination mechanisms to resolve the dilemma of inadequate cooperation mechanisms. For China, the immediate priority is to accelerate the filling of institutional gaps in critical areas of overseas school operation. Currently, nationwide management regulations are lacking regarding aspects such as qualification approval, asset and financial management, and teacher dispatch systems for overseas projects. It is recommended that national education authorities take the lead, in conjunction with foreign affairs, commerce, and finance departments, to promptly promulgate the “Administrative Measures for Overseas Operation of Vocational Education Institutions”, clearly defining qualification requirements for operators, approval procedures, asset supervision, and exit mechanisms, thereby providing clear legal basis and institutional safeguards for vocational institutions “going global”. Simultaneously, an inter-ministerial coordination mechanism should be established to integrate policy resources across diplomacy, education, commerce, and finance, avoiding issues of departmental fragmentation and policy incoherence. At the level of central-local coordination, the relationship between central overall guidance and local exploratory initiatives should be clarified. Pioneering regions like Xinjiang, Jiangsu, and Tianjin should be encouraged to develop replicable experiences, while a national information-sharing platform should be established to resolve the information asymmetry dilemma faced by vocational institutions “not knowing where to start”. For Central Asian countries, efforts should be directed towards strengthening the stability and continuity of domestic vocational education policies to mitigate uncertainties in cooperation arising from regime changes or policy adjustments. It is advisable for Central Asian countries to incorporate vocational education cooperation with China into their national medium- and long-term education development plans and to establish dedicated coordinating bodies for vocational education cooperation with China to ensure unified engagement with Chinese projects, thereby avoiding issues of overlapping management and conflicting directives. Furthermore, these countries should actively participate in policy consultations under mechanisms such as the China-Central Asia Education Ministers' Meeting and promote the

signing and implementation of bilateral agreements on mutual recognition of academic credentials and degrees, thereby providing institutional guarantees for cross-border talent mobility.

Second, strengthen linguistic and cultural exchange and the development of teaching staff and resources to resolve the dilemma of weak soft power support. China urgently needs to establish a systematic cultivation mechanism for interdisciplinary bilingual teaching personnel. Currently, Chinese expatriate teachers commonly face issues of language barriers and cultural divides. It is recommended that, building upon existing programs such as International Chinese Language Education Volunteers and government-sponsored teachers, a “Special Program for International Vocational Education Teachers” be established to specifically cultivate interdisciplinary talents who possess both professional skills and proficiency in Russian or Central Asian languages, with systematic cross-cultural adaptation training provided prior to deployment. In the realm of teaching material development, the rudimentary approach of merely translating and publishing domestic textbooks should be abandoned. Instead, teams comprising Chinese subject matter teachers, local Central Asian instructors, and industry/enterprise experts should be formed to develop teaching materials, undertaking localized adaptation tailored to the industrial characteristics and learning habits of each Central Asian country to ensure alignment between instructional content and local job standards. In terms of international communication, the dissemination strategy for vocational education brands like the Luban Workshop should be innovated, shifting away from a singular reliance on official releases towards leveraging local social media platforms and key opinion leaders in Central Asia for communication, thereby enhancing the local affinity and distinctiveness of the brand. Central Asian countries, in turn, need to increase investment in cultivating local Chinese language teaching staff. Given the common problems of insufficient teacher numbers and uneven professional competence in Chinese language education across Central Asia, it is recommended to establish a regularized training system for local Chinese language teachers, leveraging existing platforms like Confucius Institutes and Luban Workshops, enhancing teacher quality through a combination of “inviting in” and “going out” approaches. Concurrently, countries should improve practical training conditions in vocational institutions by progressively updating teaching equipment to provide hardware support for “Chinese plus Vocational Skills” instruction. Regarding cultural adaptation, Central Asian countries should strengthen pre-departure guidance for students and teachers heading to China for study or training, helping them understand Chinese educational culture and learning norms to reduce the psychological cost of cross-cultural adaptation.

Third, improve risk prevention and control and diversified safeguard mechanisms to resolve the dilemma posed by a complex geopolitical environment and insufficient sustainability of cooperation. China should proactively establish a risk assessment and early warning mechanism for overseas school operation projects. Given the interwoven major power competition in the Central Asian region and the high degree of uncertainty characterizing its geopolitical environment, it is recommended that education authorities, in collaboration with foreign affairs and security agencies, establish a dynamic country-specific risk assessment system and periodically release reports on political and economic risks in Central Asian countries, providing a reference for decision-making by vocational institutions operating abroad. Regarding financial support, the current monolithic model of

excessive reliance on government special funds must be transformed. Exploration should be directed towards establishing a diversified funding guarantee mechanism characterized by “fiscal guidance, enterprise participation, and market-based operation”. Specifically, a China-Central Asia Vocational Education Cooperation Special Fund could be established, supported by concessional loans from policy banks, while simultaneously encouraging Chinese enterprises to pre-commit to talent demand through “order-based training” arrangements, thereby sharing operational costs. Furthermore, market-oriented operational models for overseas schools should be explored, permitting operators to engage in appropriate fee-based training services while fulfilling their public service functions, thereby enhancing the projects' self-sustaining and regenerative capacity. In terms of public opinion management, China should proactively set the agenda, strengthening the dissemination of exemplary cases demonstrating how Chinese vocational education serves local livelihoods and promotes employment, using factual data to counter one-sided narratives from Western media and enhance the international credibility of Chinese vocational education brands. Central Asian countries, for their part, while maintaining balanced diplomacy among major powers, should clearly position vocational education cooperation with China as a strategic choice for promoting domestic human resource development, thereby avoiding disruptions to project stability caused by geopolitical wavering[15]. It is advisable for Central Asian countries to establish project stability guarantee mechanisms to ensure the continuity of contracted vocational education cooperation projects amidst government transitions or policy adjustments, bolstering the confidence of Chinese cooperating entities. Simultaneously, these countries should increase fiscal investment in vocational education, gradually raising the proportion of vocational education funding within overall fiscal education expenditures, improving the infrastructure and teaching conditions of vocational institutions, and reducing excessive reliance on unilateral Chinese investment. This will facilitate a transformation of the cooperation model from “aid-driven” to “demand-driven”, fundamentally enhancing the autonomy and sustainability of cooperation.

V. Conclusion

Driven by the “Belt and Road” Initiative, vocational education cooperation between China and Central Asian countries has achieved significant progress, evidenced by the full coverage of Luban Workshops across all five Central Asian states and the initial establishment of alliance platforms and industry-education collaboration mechanisms. Nevertheless, this cooperation continues to face three primary constraints: insufficient institutional supply, a shortage of interdisciplinary teaching personnel, and the combined challenges of geopolitical risks and fragile financial safeguards. Overcoming these difficulties requires coordinated efforts from both sides: China must accelerate the institutionalization of overseas school operation, establish a systematic framework for cultivating interdisciplinary teaching staff, and develop diversified funding mechanisms alongside robust risk assessment protocols. Meanwhile, Central Asian countries should enhance policy stability, strengthen coordination bodies for engagement with China, and increase local resource allocation. Only by transitioning the underlying logic of cooperation from a project-driven approach to joint system-building can this partnership achieve high-quality and sustainable development.

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