



SESEC V – Translation

SAC Report on Standardization Achievements of the 10th Anniversary of the Belt and Road Initiative (BRI)

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Introduction

On 16 January 2025, the State Administration for Market Regulation (SAMR) and the Standardization Administration of China (SAC) released the **“Report on Standardization Achievements of the 10th Anniversary of the Belt and Road Initiative (BRI).”** The report provides a comprehensive summary of the progress and milestones in standardization cooperation achieved within the framework of the BRI over the past decade. There are about 5 chapters, 19 pages and a total of 12,600 Chinese characters (about 7,270 English words) in this report.

The report highlights achievements in five main categories:

1. Global Cooperation on Standards
2. Infrastructure Development
3. Trade and Information Platforms
4. Finance
5. People-to-people Cooperation

This report provides valuable insights into China’s global outreach and influence in standardization within the BRI countries. It can serve as a reference for policymakers, including those in the EU, to better understand the Chinese standardization system and its implications for international cooperation.

The full translation offered by SESEC is as follows.

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“一带一路”

10周年标准化成果报告

Report on Standardization Achievements of the
10th Anniversary of the Belt and Road Initiative (BRI)

市场监管总局（国家标准委）

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PREFACE

Standards serve as a universal language, facilitating global connectivity. In advancing the BRI, standards and regulations mutually reinforce and collaboratively facilitate, offering a crucial foundational support for connectivity.

Focusing on the implementation of the BRI action plan for standard connectivity, we have comprehensively reviewed the accomplishments in standardization over the past decade since the inception of the BRI. These achievements include facilitating policy communication, infrastructure connectivity, unimpeded trade, financial integration, and people-to-people connectivity among nations, thus providing valuable insights for further enhancing the fundamental role of standardization in advancing the BRI.

Over the past decade, our commitment to collaborative innovation has yielded significant results in advancing the "soft connectivity" standards of the BRI.

The National Standardization Administration has signed 54 cooperation agreements with 43 national standardization institutions jointly involved in the BRI, deepening standardization cooperation and exchanges.

Innovatively, we have mutually recognized over 450 standards with standardization organizations in countries such as Russia, Kazakhstan, and Mongolia, thereby facilitating import and export trade. We have established a Standards Information Platform for the Belt and Road to provide standard information retrieval services for trade exchanges among nations.

Over the past decade, we have persistently engaged in exchanges and mutual learning, thereby deepening and practicalizing the "hard connectivity" of the BRI infrastructure.

Approximately 300 foreign language versions of national standards have been released in infrastructure sectors such as rail transit, roads, ports, power, and informatization, facilitating countries jointly building the BRI to understand and recognize Chinese standards in infrastructure construction. We have promoted the mutual recognition of 252 wide-body aircraft standards between China and Russia, providing technical support for aviation industry cooperation between the two sides. We have coordinated standards with countries like Myanmar, Indonesia, Kyrgyzstan, and Tajikistan in energy infrastructure, ensuring technical support for project construction.

Over the past decade, we have adhered to mutual benefit and win-win results, fostering deeper "heart-to-heart connectivity" among the BRI countries.

We have actively engaged in standardization capacity-building cooperation, exchanging ideas with 1,520 officials and experts from 102 countries, including Uzbekistan, Zambia, and Kenya, thereby strengthening diverse and interactive cultural exchanges. In countries such as Vietnam, Cambodia, and Laos, we have established agricultural standardization demonstration zones, promoting increased production and income for characteristic agricultural products like rice, sugarcane, cantaloupe, and dragon fruit, thus benefiting local communities.

To summarize the standardization achievements over the past decade of jointly building the BRI, further enhance standardization cooperation with participating countries, promote high-quality development in the joint construction of the BRI, and extend the benefits of BRI standardization achievements to more countries and people, this achievement report is hereby released.

I. Strengthen the Integration of Standard Systems and Forge Consensus on Cooperation Among Nations

(i) The international 'circle of friends' for standardization continues to expand

Since the inception of the BRI, the consensus on standardization cooperation between China and other countries jointly participating in the initiative has been continuously strengthened. Out of the 138 intergovernmental cooperation agreements signed between China and these countries across Asia, Africa, Europe, Pacific island

nations, and other regions, 42 agreements encompass standardization cooperation. The National Standardization Administration has signed 108 standardization cooperation documents with 65 national standardization organizations, regional standardization organizations, and international organizations (see Figure 1).

Notably, 54 standardization cooperation agreements have been signed with 43 countries jointly participating in the BRI, including Pakistan and Saudi Arabia. Among these standardization agreements, 11 standardization cooperation documents signed with standardization agencies in 8 countries, including Belarus, Nepal, Kazakhstan, etc., were either witnessed by President Xi Jinping or included in the list of summit outcomes.

The cooperation documents signed with six national standardization agencies and regional standardization organizations, including Germany, the United Kingdom, Greece, Italy, Singapore, and the European Organization for Standardization, have been included in the outcomes of the Prime Minister's high-level visit.

Through the implementation of the "Action Plan on Belt and Road Standard Connectivity (2015-2017)" and the "Action Plan on Belt and Road Standard Connectivity (2018-2020)", two rounds of the BRI three-year action plan of Standard Connectivity, we continue to consolidate the level of standardization cooperation with Europe, the Americas, Africa, Oceania, Southeast Asia, the Pacific, and other regions.

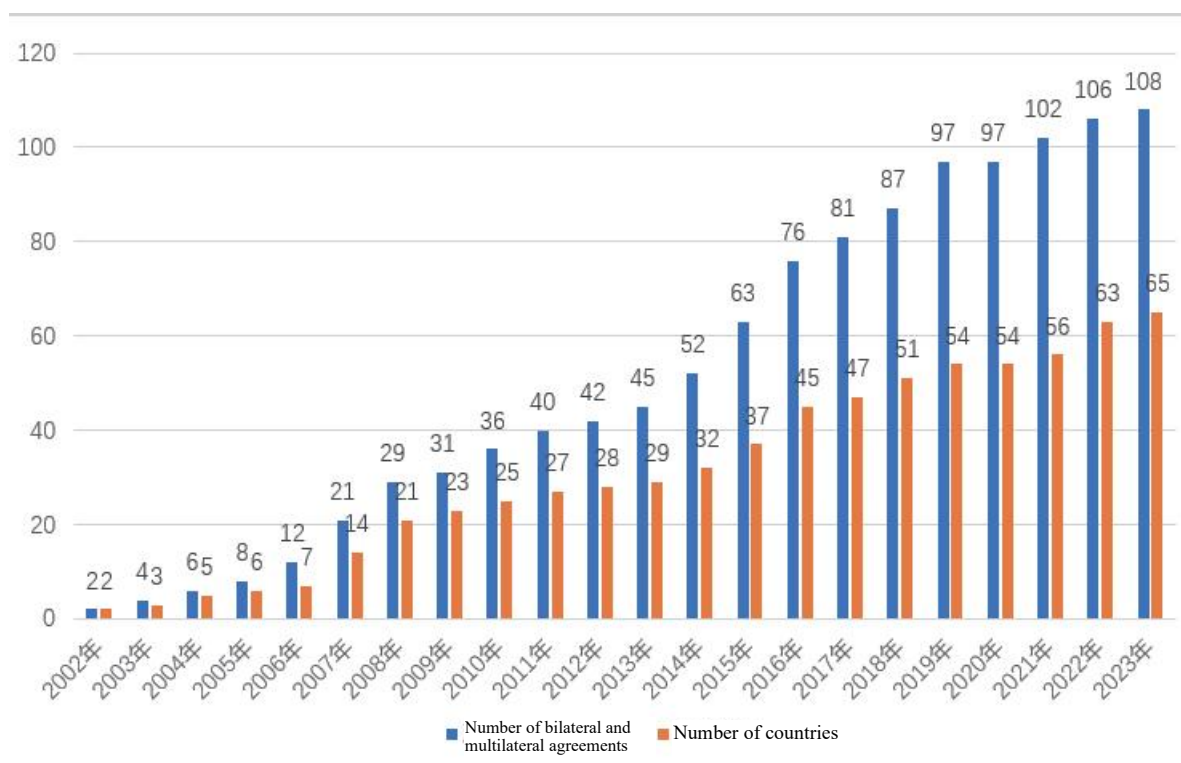


Figure 1 Annual number of bilateral and multilateral international standardization cooperation agreements

(ii) The Influence of Standardization Cooperation Continues to Grow

Leveraging mechanisms such as the ASEAN-China Summit, the ROK-Japan-China Trilateral Summit, the China-Arab States Cooperation Forum, the China-CELAC Forum, the BRICS cooperation mechanism, as well as bilateral economic and trade joint committee meetings with countries like Russia, Kuwait, Qatar, and Palestine, we continue to advance standardization cooperation with countries participating in the BRI.

We actively organize international cooperation and exchange activities, engaging in practical standardization exchanges with more countries, conducting international discussions on topics such as green, low-carbon sustainable development and intelligent manufacturing, and facilitating the alignment of standardization efforts with more countries jointly building the BRI. A total of eight standardization achievements from the three BRI

International Cooperation Summit Forums have been included in the list of outcomes, strengthening the cooperative foundation for promoting connectivity under the BRI.

Main achievement I

Actively Organize International Standardization Cooperation Conferences to Seek Broader International Consensus

(i) Qingdao International Standardization Conference

- The First Qingdao Forum on International Standardization in 2017 Host venue: Qingdao, Shandong
- The Second Qingdao Forum on International Standardization in 2019 Host venue: Qingdao, Shandong
- The Third Qingdao Forum on International Standardization in 2021 Host venue: Qingdao, Shandong
- The Fourth Qingdao International Standardization Conference in 2023 Host venue: Qingdao, Shandong

(ii) China-ASEAN Standardization Cooperation Forum

- The First China-ASEAN International Standardization Forum in 2019 Host venue: Nanning, Guangxi
- The second China-ASEAN International Standardization Forum in 2021 Host venue: Nanning, Guangxi
- The third China-ASEAN Standardization Cooperation Forum in 2023 Host venue: Liuzhou, Guangxi

(iii) China - South Asia Standardization Cooperation Work Conference

- The first China - South Asia Standardization Cooperation Work Conference in 2016 Host venue: Chengdu
- The second China - South Asia Standardization Cooperation Work Conference in 2018 Host venue: Chengdu
- The third China - South Asia Standardization Cooperation Work Conference in 2020 Host venue: Video

(iv) Meeting of Heads of BRICS National Standardization Bodies

- The first Meeting of Heads of BRICS National Standardization Bodies in 2019 Host venue: Shanghai
- Meeting of Heads of BRICS National Standardization Bodies in 2020 Host venue: Video
- Meeting of Heads of BRICS National Standardization Bodies in 2021 Host venue: Video
- Meeting of Heads of BRICS National Standardization Bodies in 2022 Host venue: Video

Main achievement II

Standardization Achievement of BRI Forum for International Cooperation

(i) Standardization achievement of the first BRI Forum for International Cooperation

1. China and relevant departments from Russia, Belarus, Serbia, Mongolia, Cambodia, Malaysia, Kazakhstan, Ethiopia, Greece, Switzerland, Turkey, and the Philippines signed the "Joint Initiative on Strengthening Standards Cooperation and Promoting the Construction of BRI".

(ii) Standardization achievement of the second BRI Forum for International Cooperation

1. National Standardization Administration initiated the establishment of the "Standards Information Platform for the Belt and Road," aiming to strengthen the exchange and sharing of standard information with relevant countries.

2. The Ministry of Water Resources of China, the National Standardization Administration, and the United Nations Industrial Development Organization signed a Memorandum of Understanding to collaborate on promoting international standards for small hydropower.

3. The National Standardization Administration and the Saudi Standards, Metrology, and Quality Organization signed the Action Plan on Technical Cooperation Program (2019-2021). The China-Russian Civil Aircraft Standards Coordination Working Group jointly signed the "Mutual Recognition Catalogue of China-Russia Civil Aircraft Standards".

(iii) Standardization achievement of the third BRI Forum for International Cooperation

1. National Standardization Administration and the Kazakhstan Institute of Standardization and Metrology signed a Memorandum of Understanding on cooperation.

2. The Ministry of Water Resources of China, the National Standardization Administration, and the United Nations Industrial Development Organization signed a Memorandum of Understanding to collaborate on promoting sustainable rural development based on international standards for small hydropower.

3. The National Standardization Administration and the African Electrotechnical Standardization Commission signed a Memorandum of Understanding on cooperation.

4. Report on Standardization Achievements of the 10th Anniversary of the Belt and Road Initiative (BRI)

(iii) The contribution of international standards becomes more notable

China successfully hosted the 39th International Standardization Organization (ISO) Conference and the 83rd International Electrotechnical Commission (IEC) Conference in 2016 and 2019, respectively. President Xi Jinping's congratulatory letter sparked enthusiastic reactions both domestically and internationally.

China has earnestly fulfilled its duties as a permanent member of ISO and IEC, actively participating in the formulation of international standardization strategies and organizational governance reforms. It has established ISO International Standardization Training Bases (Qingdao), ISO International Standardization Conference Bases (Hangzhou), and IEC International Standard Promotion Centers (Nanjing), providing fundamental support for developing countries' participation in international standardization activities. China has partnered with countries such as Laos and Nigeria to offer guidance for their engagement in ISO and IEC-related international standardization activities.

Main achievement III**Pair Up to Help Build the BRI Countries and Improve International Standardization Level**

On February 15, 2021, the IEC Nigeria National Committee officially signed the IEC Affiliate Mentoring Program establishing a two-year assistance partnership. Guided by the IEC China National Committee, this program aims to provide technical assistance and training to the IEC Nigeria National Committee by setting specific pairing assistance goals. This will enable them to grasp the latest trends in standard development and cutting-edge technical knowledge, engage in technical exchanges and cooperation, jointly develop international standards, ensure that technology and products comply with global standards and best practices, promote and publicize sustainable energy and environmental protection technologies, and enhance public awareness and understanding of sustainable development. The purpose of this project is to assist the IEC Nigeria National Committee in enhancing its standardization capabilities, enabling it to better address challenges related to energy, climate change, and the environment, and ultimately achieve sustainable development.

II. Accelerate the Standardization of Infrastructure Connectivity and Enhance the Level of Interconnectivity**(i) Standardization supports infrastructure development in areas such as transportation and energy**

In terms of road traffic, countries jointly building the BRI have formulated 31 International Union of Railways (UIC) standards, including "Implementation of High-Speed Railway," of which 18 have been released. We actively share successful practices of Chinese railway standards and support the construction of eight railway cooperation projects, including those in Pakistan, China-Kyrgyzstan-Uzbekistan, China-Laos, Mongolia-Nepal, and the Indonesia Jakarta-Bandung high-speed railway. We have published English, French, and Russian versions of 92 Chinese standards covering highway, bridge, and tunnel design, construction, and quality evaluation, offering Chinese expertise for highway construction in developing countries. This has benefited projects such as Cambodia's Golden Port Expressway, Ethiopia's AA Expressway, Mozambique's Maputo Bridge, Indonesia's Suramadu Bridge, and the expansion and renovation of Pakistan's Karakoram Highway.

Port cooperation projects in Sudan, Sri Lanka, Cameroon, Pakistan, and Mozambique reference Chinese port engineering standards, ensuring quality assurance for related projects. Experts from enterprises and universities in Vietnam, Pakistan, and other countries have jointly participated in the development of the group standard "Technical Specification for Rock Compound Modified Asphalt Pavement" (T/CECS 930). This standard significantly enhances the high-temperature resistance, heavy-load resistance, and water damage resistance of asphalt

pavement, thereby extending the service life of asphalt roads. The Electronic Toll Collection (ETC) standard has facilitated road traffic in ASEAN countries such as Myanmar, Indonesia, and Malaysia. Standards such as "Fuel Cell Electric Vehicles-Safety Requirements" and "Power Supply System for Supercapacitor Electric City Buses" have been recognized by countries like Chile and Peru, bolstering the safe and healthy development of local electric vehicle industries

In the realm of energy infrastructure, the Ministry of Water Resources of China, the National Standardization Administration, and the United Nations Industrial Development Organization jointly signed a "Memorandum of Understanding to Collaborate on Promoting International Standards for Small Hydropower", collaborating on the development of ISO international standards for small hydropower. Through various forms of international standardization cooperation in the fields of solar energy, nuclear power, ultra-high voltage, and smart grids, a total of 88 international standards have been developed for ultra-high voltage, smart grids, and other areas. Accelerate the global transformation of innovative achievements and prepare 19 technical reports for the International Council on Large Electric Systems (CIGRE).

The National Standardization Administration has carried out standard docking in the fields of power grid, hydropower, wind power, solar energy, etc. with countries such as Indonesia, Sierra Leone, and Brazil. In the construction of natural gas pipeline projects in Kyrgyzstan, Tajikistan, Uzbekistan, Kazakhstan, Myanmar and other countries, carry out standard coordination and jointly improve the standard system.

The National Standardization Administration, together with the National Energy Administration, has established a China-Russia energy standard docking mechanism under the China-Russia Standard Metrology Qualification Assessment and Inspection Supervision Permanent Working Group to promote cooperation in energy standardization between China and Russia. Collaborate with Pakistan on standardization to jointly build the overseas first reactor project (K2-K3) unit of Hualong One. Actively engage in standardization cooperation and exchanges with Argentina, supporting the advancement of Argentina's nuclear power projects. The Chinese Atomic Energy Authority has compiled 16 English versions of standards, including the Technical Requirements for the Integrated Management System for the Physical Protection of Nuclear Materials and Nuclear Facilities.

Main achievement IV **Standard Connectivity Construction of BRI Landmark Project**

In recent years, China's railway sector, particularly its high-speed rail, has undergone rapid development, emerging as a prominent symbol in support of the BRI. China's railway standards, alongside its overseas engineering projects, offer comprehensive support for railway construction in countries participating in the BRI. Firstly, the China-Laos Railway and the Jakarta-Bandung high-speed rail have been completed and put into operation, demonstrating significant effects and facilitating local transportation and trade exchanges. Secondly, key "Belt and Road" projects such as the Mombasa-Nairobi Railway and the Addis Ababa-Djibouti Railway have played a crucial role in driving the in-depth economic development of Africa. Thirdly, interconnection projects like the China-Nigeria cross-border railway and the China-Kyrgyzstan-Uzbekistan railway are actively being pursued, facilitating joint efforts by BRI countries to leverage their respective market and resource advantages, and deepening cooperation in industrial and supply chains

(ii) Standardization ensures the healthy and sustainable development of cities

In the realm of smart cities, China and ASEAN nations jointly issued the “ASEAN-China Leaders’ Statement on Smart City Cooperation Initiative” explicitly advocating for the promotion of standard exchange and mutual recognition in smart city technology industries, key application areas, and comprehensive solutions. Together, they are jointly establishing the BRI countries and formulating a series of international standards, including "Smart City System - Concept Construction and Methodology" and "Information Technology - Smart City Digital Platform." In collaboration with ISO, the United Nations Environment Programme (UNEP), and the French National Standardization Agency (AFNOR), among others, they are advocating for the establishment of a global sustainable development standardization alliance. This alliance comprises 22 international cities from nations such as the United Kingdom, Russia, and Brazil, as well as 17 Chinese cities including Beijing, Tianjin, Guangzhou, and Shenzhen.

In the aspect of green energy conservation, China actively participates in the development of ISO energy-saving international standards. The international standard "General Technical Rules for Measurement and Verification of Energy Savings" (ISO 17741), led by Chinese experts, has been adopted as the national standard by 26 countries, contributing Chinese wisdom to the development of international energy-saving standards.

The Chinese national standard "Minimum Allowable Values of the Energy Efficiency and Energy Efficiency Grades for Room Air Conditioners" (GB 21455-2019) has significantly promoted the effective application of frequency conversion technology. The United Nations Environment Programme (UNEP) has evaluated that "the newly revised Chinese room air conditioner energy efficiency standards guide manufacturers to redesign products based on the standards, thereby achieving synergistic benefits of energy conservation and low-carbon refrigerant transformation." In addition, nine standards for Chinese electric rice cookers, induction cookers, electric kettles, water heaters, and washing machines have been adapted by countries such as Vietnam, Russia, and Pakistan, fostering technological cooperation in energy conservation.

In terms of ecological and environmental protection, the Ministry of Ecology and Environment has facilitated the establishment of a thematic partnership on environmental laws, regulations, and standards within the framework of the BRI International Alliance for Green Development. This partnership has conducted comparative research on ecological and environmental standards, resulting in the publication of the "Ecological Environment Standards of Countries along the BRI" and the "Blue Book of BRI Environmental Standards".

In the realm of safety protection, seven foreign language versions of national standards for security inspection equipment, including "Microdose X-ray Safety Inspection Equipment", have been released to facilitate understanding of China's standards among countries along the BRI.

A certification cooperation mechanism has been established in the field of safety and prevention, fostering international mutual recognition cooperation with Pakistan, Thailand, Indonesia, and other countries. China will conduct testing and certification for security equipment, issuing test reports and certification certificates. Foreign industry organizations will recognize these certification results and recommend certified products in their respective countries, thereby supporting national security cooperation and playing a constructive role in promoting peace and stability among BRI countries.

(iii) Standardization supports mutual assistance in the field of people's livelihood

In the information and communication field, China actively engages with international professional standard organizations such as 3GPP, jointly developing standards like 5G. The digital rights management of video and audio content (ChinaDRM radio and television technical standards and specifications) is utilized in countries jointly building the BRI. China's digital terrestrial television (DTMB standard system and supporting standards) supports Laos and Cambodia in broadcasting dozens of DTMB programs, serving over 100,000 users and enhancing the well-being of local residents.

Main achievement V
Digital Terrestrial Television Standard System and Supporting Standards Enhance the Happiness of People in the BRI Countries

The National Radio and Television Administration actively participates in international radio and television professional forums, engaging in technical and business exchanges concerning China's radio and television technology standard system and its implementation and application, through various formats such as special forums and exhibitions. This promotes the alignment and mutual recognition of national standards in the joint construction of the BRI. The ChinaDRM standard for digital rights management of video and audio content has gained recognition from international mainstream content providers, technology providers, chip manufacturers, terminal product manufacturers, as well as major international security laboratories in countries like the United States and Europe. This recognition has facilitated the internationalization of video and audio digital rights management technology and standard systems. MIIT actively promotes the "China-Cambodia-Laos Ground Digital Television Chinese Standard Research and Development Demonstration" collaboration with Cambodia and Laos, and has signed a cooperation agreement with Pakistan for the "Assistance to Pakistan Digital Television Transmission Demonstration Project". By adopting the digital television (DTMB/DTMB-A) standard, the construction of DTMB/DTMB-A networks is being promoted in Timor Leste, Laos, and Cambodia.

In the aerospace sector, China and Russia, leveraging industrial cooperation projects, are jointly developing long-range wide-body passenger aircraft and other civil aircraft projects. Through the exchange, translation, comparison, and analysis of standards between China and Russia, the standardization management agencies of both sides have jointly signed the "Sino-Russian Mutual Recognition Catalogue for Civil Aircraft Standards", encompassing 252 Chinese and Russian standards, thus providing standard technical support for the joint development of wide-body passenger aircraft between China and Russia.

The China National Space Administration has compiled 30 English versions of Chinese aerospace standards, including "Quality Control Requirements for Satellite Assembly, Integration, and Testing Processes". China and Egypt have jointly developed the Egypt-2 satellite based on Chinese aerospace standards, enabling Egypt to become the first country in Africa to possess satellite assembly and testing capabilities, and to take the lead in achieving localization of satellite development.

In the field of ocean observation, the State Oceanic Administration of China has facilitated cooperation with countries jointly building the BRI, aiming to enhance the international standard system in the fields of ISO marine instruments and equipment, ocean observation, etc. Eight international standards have been officially released. The ISO international standard in the field of ocean survey has become the factual standard for joint ocean surveys conducted by China, Thailand, China, and Mozambique. Additionally, 12 standards in China's ocean survey, ocean instrument testing, ocean engineering equipment, and other fields have been incorporated into the best practices system for the ocean by the Intergovernmental Oceanographic Commission of UNESCO (UNESCO/IOC). Furthermore, cooperation with the Lao Surveying and Mapping Bureau has resulted in the development of six Lao surveying and mapping standards.

Main achievement VI

Deepen the Research on the Transformation and Application of Surveying and Mapping Basic Standards

National Geomatics Center of China has conducted research on the applicability and standard transformation of advanced technical standards related to modern surveying and mapping benchmarks in Southeast Asian countries. It has analyzed the applicability of standards such as the "Specifications for the Continuously Operating Reference Station Using Global Navigation Satellite System", "Specifications for the First and Second Order Leveling", and "Specifications for Global Positioning System (GPS) Surveys" in Southeast Asian countries, including Pakistan. This has facilitated the transformation and application of the "Specifications for the Continuously Operating Reference Station Using Global Navigation Satellite System" and effectively promoted international cooperation with Southeast Asian countries on surveying and mapping benchmark standards.

II. Deepen the Alignment of Trade and Investment Standards and Unblock the Foundation for Economic and Trade Cooperation

(i) International production capacity cooperation achieves win-win outcomes

In the realm of steel and non-ferrous metal standards, the Ministry of Natural Resources and the United Nations Economic Commission for Europe have jointly issued alignment documents between the Chinese national standards "Classifications for Mineral Resources and Mineral Reserves" (GB/T 17766-2020) and "Classifications for Petroleum Resources and Reserves" (GB/T 17766-2020), aligning with the "United Nations Framework Classification" (UNFC 2019). Through the implementation of significant projects like the Bonto Batu Hydropower Station in Indonesia, the Suapiti Water Conservancy Hub Project in Guinea, the Bekongor III Hydropower Station Project in Sierra Leone, the Cambodia Sports Stadium, and the, China-Maldives Friendship Bridge overseas standardized demonstration projects have been established. Leveraging the Papua New Guinea Ramu Nickel Cobalt Engineering Standard Demonstration Project and the Vietnam Ha Tinh Steel Engineering Standard Demonstration Project, we have facilitated the alignment of 760 standards.

Regarding cooperation in agricultural and forestry product standards, we support Laos in enhancing its natural rubber industry standardization system. This involves developing and publishing Laotian standards for products such as standard rubber, concentrated rubber, and tire-specific rubber, thereby promoting the integration of Chinese and Laotian standards in the natural rubber sector. In response to Kyrgyzstan's agricultural trade cooperation needs, Shaanxi has established a China Central Asia Agricultural Cooperation Center and a comprehensive agricultural science and technology demonstration park. By promoting Chinese standards in crop cultivation, agricultural product food processing, and other related areas, we aim to facilitate the entry of high-quality agricultural products into the Chinese market.

Main achievement VII
Create a “Hard Mechanism” for Agricultural Standardization Cooperation with Standard “Soft Connectivity”

Guangxi leverages China's agricultural planting technology advantages, conducts research on the applicability of agricultural standards in ASEAN countries, promotes standardization concepts and agricultural planting technologies in ASEAN countries, and builds a number of agricultural standardization demonstration zones. Currently, relying on the China-Laos Improved Crop Variety Test Station, Phandong Village, Xaythany District, Vientiane, Laos has established agricultural standardization demonstration zones for rice, grapes, corn, cantaloupe, dragon fruit, and other crops. These demonstration zones employ standardized planting techniques to address the issues of extensive agricultural product cultivation and low variety yields, resulting in a general yield increase of over 15% and significantly boosting local farmers' income.

In the realm of food safety standard cooperation, China experts have successfully assumed the role of Chairman for Regional Coordinator of The Coordinating Committee of the Codex Alimentarius Commission (CAC). During their tenure, they will represent Asia, aiming to bolster cooperation with other countries in the CAC domain and collectively amplify Asia's contribution to the formulation and revision of CAC standards. The Ministry of Science and Technology of China backs the joint establishment of the China-Cambodia Food Industry Joint Laboratory with Cambodia. Through collaborative research, technology transfer, and personnel training in food production and food safety testing, the laboratory aims to co-develop a food industry-related standard system with Cambodia.

(ii) Trade facilitation and cooperation are progressing in an organized manner.

Regarding the support for the development of free trade zones, distinct chapters dedicated to standards, technical regulations, and conformity assessment will be incorporated under both the Regional Comprehensive Economic Partnership (RCEP) and the ASEAN-China Free Trade Area. This will enhance the enforcement of the Agreement on Technical Barriers to Trade, thereby facilitating trade in goods among contracting parties. Within the framework of free trade agreements between China, the Gulf Cooperation Council, Israel, Cambodia, and other countries and regions, efforts will be made to foster standard coordination, facilitate standard information exchange, and advance standardization cooperation with relevant nations.

In the pursuit of enhancing logistics efficiency, the CAREC Federation of Carrier & Forwarder Associations (CFCFA) has formulated 29 CFCFA recommended standards, drawing upon Chinese national standards. The first batch of 10 logistics service standards, including the "RFID Tag Application Criteria for Pallet Units used in Circulation Industry," have been recognized by standardization agencies in Kyrgyzstan and Tajikistan. A series of Electronic Business eXtensible Markup Language (ebXML) document message standards have been applied to the Central Asia Regional Economic Cooperation (CAREC) pre-declaration transportation system (CATS), significantly enhancing the efficiency of logistics distribution in the Central Asia region.

In terms of facilitating inspection, quarantine, and customs clearance, the General Administration of Customs has signed the "Protocol on Quarantine and Hygiene Requirements for Chinese Imported Beef Cattle for Slaughtering from Myanmar" with the Ministry of Agriculture, Livestock and Irrigation of Myanmar, and the "Protocol on Quarantine and Hygiene Requirements for Chinese Imported Beef Cattle for Slaughtering from Laos" with the Ministry of Agriculture and Forestry of Laos. China's "Requirements for the Construction of Overseas Foot-and-Mouth Disease Immunization Free-Zone" (SN/T 4999-2017) has been adopted as the technical specification for China and Laos to establish foot-and-mouth disease-free areas, significantly enhancing the bilateral and multilateral economic and trade facilitation between China and ASEAN countries.

In terms of cooperating in the construction of overseas industrial parks, the China Council for the Promotion of International Trade actively participates in related activities such as overseas industrial park promotional events, overseas park working conferences, park investment briefings, and the China Central International Capacity Cooperation Forum. It has leveraged successful experiences in the construction and operation of overseas economic and trade cooperation zones from multiple mature parks, including the TEDA Suez Economic and Trade Cooperation Zone and the Ethiopia Oriental Industrial Park, and has utilized the information service platform of overseas industrial parks to promote standardized construction of parks. The National Standardization Administration and the Belarusian State Institute for Standardization and Certification have reached a consensus on the standardization cooperation plan for the China-Belarus Industrial Park.

III. Expand the integration of financial standards and facilitate the development of the financial system

(i) Financial standardization communication and exchange are becoming increasingly close

The People's Bank of China actively engages in bilateral and multilateral financial standardization exchanges with countries including Russia, Kazakhstan, Kyrgyzstan, Mongolia, Laos, Myanmar, Cambodia, and Pakistan. It shares standardization work experience through various means, such as organizing publicity seminars, providing a directory of Chinese financial standards, and establishing mechanisms for information sharing and cooperation in standardization efforts. The institution explores mutual recognition of standards, effectively enhancing the alignment of rules and connectivity of standards, thereby providing standard support for fostering mutually beneficial and win-win partnerships in financial standardization and supporting the high-quality development of BRI financial cooperation.

(ii) The foreign language versions of financial standards continue to expand

Versions of national standards in the financial sector, including the "Basic Requirements for Bank Branches Services" and the "The Criteria of Bank Branches Service Evaluation", have been released in English, Burmese, Lao, and other languages. Compilation of Chinese financial standards in Portuguese, Vietnamese, Cambodian, and other languages has also been undertaken, offering technical references to jointly build BRI national commercial banks and enhance the quality and level of financial services.

(iii) Regional financial standardization cooperation continues to strengthen

The People's Bank of China backs the Asian Financial Cooperation Association in developing standards such as the "Bank Branches Service Guide" and the "Personal Financial Information Protection Guide". These standards are formulated by referencing standards like those for Bank of China branch services and personal financial information protection, and taking into account the practical experiences and economic developments of countries and regions jointly participating in the BRI, thereby contributing to regional financial standardization cooperation.

Main achievement VIII

China's Bank Card Standards Facilitate the Joint Efforts of BRI Countries in Advancing Financial Inclusion and Enhancing the Level of Digital Payments

The People's Bank of China actively promotes the joint construction of financial inclusion in the BRI countries, utilizing Chinese bank card and mobile payment standards. China UnionPay assists Thailand in establishing its own debit card brand and participates in the development and operation of Laos' national bank card payment system, LAPNet, adhering to the technical standards of China's bank card industry. Additionally, China has provided cross-border chip card standards to the Asian Payment Alliance and has become a recommended standard for chip cards in Myanmar's banking sector. The China UnionPay card acceptance network has expanded to 180 countries and regions overseas, with 78 countries and regions issuing UnionPay cards. Nearly 90% of the countries jointly building the BRI have opened UnionPay card services, covering over 19 million merchants and 600,000 ATMs, with more than 170 million UnionPay cards issued in the region.

V. Promote mutual understanding of people's standards, and enhance cultural exchanges and mutual learning

(i) Standard cooperation in the humanities is becoming increasingly close

Strengthen standardized people-to-people exchanges. Guangxi hosted the China-ASEAN Standardization Cooperation Forum, jointly issuing the "Nanning Initiative" and "Liuzhou Initiative" to reach a consensus on promoting standardization cooperation. Qingdao organized the Qingdao International Standardization Conference, featuring specialized discussions on pressing issues including the modern marine industry, intelligent manufacturing, sustainable water resources, new display technologies, and standardization capacity building. Xi'an staged the second BRI Standardization Education and Research Cooperation Forum, unveiling the "Xi'an Declaration of the BRI Standardization Education and Research University Alliance". Inner Mongolia hosted the Standardization Forum for Sino-Mongolian Economic and Trade Activities at the China-Mongolia Expo, exploring and sharing experiences on topics such as standardization cooperation, customs clearance facilitation, and standardization of Mongolian medicine. Hubei organized the Standard Interconnectivity - BRI Chibi Green Brick Tea Summit Forum, issuing the "Xianning Consensus" and "Chibi Initiative" to drive interconnectivity and high-quality development in the tea industry through setting high standards. Yiwu successfully hosted the China Yiwu International Small Commodity (Standard) Fair and the International Conference on Standardization for Small and Medium-sized Enterprises, facilitating global buying and selling for these enterprises through standardization. The China Council for the Promotion of International Trade organized the China Service Trade Standardization Forum, fostering in-depth exchanges and cooperation in standardization efforts across various sectors, including digital exhibitions, e-commerce, human resources, live streaming economy, and cultural creativity.

BRI countries will be joined in establishing a standardization alliance. As the initiator, China, along with Pakistan, Russia, Thailand, and Italy, has jointly established the BRI International Alliance for Proton, Superconducting, and Nuclear Energy Applications (PSNS). They have issued the "Standard Management Measures for BRI International Standards Alliance for Proton, Superconducting, and Nuclear Energy Applications", as well as the "Constitution of BRI International Standards Alliance for Proton, Superconducting, and Nuclear Energy Applications" (in both Chinese and English versions), and formulated four international alliance standards. The National Gemstone Testing Center, in collaboration with the Thai Jewelry Research Institute, the Indian Gemological Institute, and the China Gem & Jade Trading Center, has initiated the establishment of the Asia Pacific Jewelry Standardization Technology Alliance to promote the development of international jewelry trade.

(II) Highlights in the cooperation of health service standards

In the realm of epidemic prevention and control, a comprehensive standard comparison and analysis initiative was launched, focusing on 10 product categories including masks, protective clothing, and gloves. Over 440 domestic and international standards were compared, culminating in the production of eight analytical reports comparing standards for key epidemic prevention products, such as those between China and Europe, and China and Russia. On the ISO official website, the Chinese and English websites of the National Standardization Administration, the "BRI" joint national standard information platform, and various Sino-foreign standard information cooperation platforms, we have established a dedicated column for the dissemination of epidemic prevention standards. This includes timely updates on the Chinese epidemic prevention product standards list, comparative research on domestic and international epidemic prevention standards, and foreign language versions of relevant national standards, thereby offering epidemic prevention standard information services to countries participating in the BRI.

In the medical and health sector, China experts have assumed the co-chair position of the International Medical Device Regulators Forum (IMDRF) Standards Working Group. They have proposed a new initiative to update the "list of international standards recognized by IMDRF members", and have led the development of key outcomes such as the Report on the Analysis of Standards Recognition and Use and the List of Approved Standards. These achievements have been unanimously endorsed by all members, bolstering efforts to advance medical device standard recognition in BRI countries. Collaborating with nations like South Africa and Singapore, we have jointly developed and released 81 international standards for traditional Chinese medicine, actively promoting their adoption to enhance the health and well-being of people worldwide.

(III) The foundation for people-to-people connectivity and standardization is continuously being strengthened.

We will strengthen cooperation in standardization capacity building. We have held 16 standardization workshops for countries along the BRI, where 421 standardization officials and experts from 50 countries across Asia, Africa, and the Americas engaged in mutual learning and exchange, jointly enhancing the capability and level of standardization.

This has facilitated the continuous expansion of the "circle of friends" in the standardization field. The national poverty alleviation office, in collaboration with relevant departments, has jointly organized 38 foreign aid training projects. These include 35 projects approved by the China International Development Cooperation Agency, one international political party training project organized by the International Department, Central Committee of CPC, and two other independent training projects. These efforts aim to vigorously cultivate standardized talents for targeted poverty alleviation.

We carry out professional standardization and innovation services overseas. The establishment of the "China-ASEAN Automotive Standards and Regulations Research Center" in Indonesia has opened the door to cooperation in automotive standardization between China and ASEAN countries. We have maintained long-term dialogues with automotive regulatory authorities and standardization organizations in ASEAN countries, forming a normalized exchange mechanism.

Through collaborative platforms such as joint laboratories (joint research centers), technology transfer centers, and joint research and technology demonstration bases, we have assisted countries along the BRI in strengthening their scientific and technological innovation capabilities, while providing access to Chinese technologies, products, and standards. To date, 33 BRI joint laboratories have been established.

Accelerate the compilation of foreign language versions of Chinese standards. In fields such as transportation, oil and gas, energy and power, information technology, finance, oceanography, railway, and safety and emergency response, we have prioritized the development of foreign language versions of national standards, releasing over 1700 such versions. In areas like nuclear power, machinery, steel, fiber optic cables, and tea, aligned with economic and trade exchanges as well as project cooperation needs, we have expedited the translation into foreign languages of urgently required standards for products, testing, and management, issuing more than 1000 foreign language versions of industry standards.

Establish the "Standard Information Platform for the Belt and Road" and a "Chinese-English Smart Translation System in Standardization" to fulfill the urgent need for mutual understanding of standards among BRI countries, offering timely assistance for trade exchanges, enhancing trade efficiency, and reducing trade costs.

Main achievement IX Standard Information for the Belt and Road

In 2019, the “Standard Information Platform for the Belt and Road” was launched, which for the first time classified and translated relevant standard information from countries jointly participating in the BRI. The standardized overview information now covers 149 countries, including China, involved in the BRI. With a total of 1.32 million standard bibliography data entries, it offers precise retrieval services for standard bibliography information from 59 countries and 6 international and regional standardization organizations. This ensures that standard information is accessible in an organized manner, while striving to deliver a high-quality user experience. By utilizing visualization techniques, we analyze the characteristics and quantity of standards across various countries, including popular standard keywords, distribution of standard fields, and trends in standard releases. Additionally, a column dedicated to domestic and international standardization trends is established to promptly track the standardization developments of countries and international standard organizations, thereby providing standardization information support for the BRI.

Main achievement X Chinese-English Smart Translation System in Standardization (Translation Cloud Platform)

In 2019, the "Chinese-English Smart Translation System in Standardization" was introduced to facilitate the translation of Chinese standards into foreign language. Leveraging the achievements of major national science and technology projects, we have developed the "Chinese-English Smart Translation System in Standardization". This platform includes a "Translation Corpus of Foreign-Language Versions of Chinese Standards Documentation" encompassing 60.16 million Chinese characters and 24.54 million English words. Additionally, we have crafted a massive big data corpus interface, utilizing cutting-edge neural network translation and computer-aided translation post-editing technologies. This enables swift translation between Chinese and English for various formats of standard texts, standardized documents, and materials from other fields. We facilitate online word segmentation and composition, allowing users to create personal memory and terminology databases online. The translated text preserves the original formatting intact. This platform stands out for two distinct features. Firstly, it embraces the "co-construction and sharing" philosophy, where every user serves as both a user and a contributor to the platform's corpus. Secondly, the accompanying independent English interface offers a swift translation gateway for international users to access and utilize Chinese standards. Furthermore, the online translation approach not only eliminates the need for updates but also provides real-time translation of standard texts and standardization literature.

Conclusion

At the third BRI Forum for International Cooperation, President Xi Jinping outlined eight initiatives to support high-quality joint development of the BRI. Standing at a new historical juncture, the joint development of the BRI is more innovative and dynamic. The work of standard connectivity within the BRI requires seizing new opportunities, demonstrating new achievements, and achieving new breakthroughs, playing a greater role in facilitating high-quality development through soft connectivity.

Firstly, we must continuously deepen international cooperation on standards to forge mutually beneficial partnerships. We should expand cooperation channels in standardization, integrate standardization cooperation into inter-country economic and technological collaborations, actively facilitate alignment in standards with other BRI countries, further enhance standard exchanges with regions such as Asia Pacific, Pan America, and Africa, exchange and share standard information, promote the establishment of universally recognized rules, standards, and best practices among participating countries, and establish a "hard mechanism" with standard "soft connectivity".

Secondly, we aim to enhance the compatibility of the standard system and bolster support for trade facilitation standards. Focusing on key bilateral and multilateral trade products, technological innovation, and industrial transformation and upgrading in BRI countries, we will actively adopt international standards, collaborate with more countries in standard setting, harmonize Chinese and foreign standards, strive for greater standard consistency, and further promote the compatibility of our standard system. We will release more foreign language versions of Chinese standards and expedite the compilation of foreign language versions for Chinese standards related to bulk commodities and foreign contracted projects, thereby facilitating economic and trade exchanges.

Thirdly, we aim to steadily expand standardized institutional opening-up, elevating the level of standardization in our external relations. By focusing on industrial needs, we will continuously broaden and deepen our participation in standard internationalization activities, thereby enhancing China's standardization openness and development. We will devise measures to steadily expand the institutional openness of standards, encouraging foreign-funded enterprise experts to engage in China's standardization efforts, and facilitating cooperation between Chinese experts and their counterparts from countries jointly building the BRI, to jointly participate in international standard setting. Focusing on key regions and countries, we will support the construction of a high-standard free trade zone network through open cooperation on standards.

Fourthly, we are committed to strengthening the foundation for international standardization, enhancing the support and guarantee capabilities for "soft connectivity" in standards. We will organize more high-quality international standardization workshops, collaborate on standardization capacity building with more countries participating in the BRI, and enhance mutual learning. We will continuously improve the service level of the Translation Cloud Platform, persistently enhance the construction of the Standard Information Platform for the Belt and Road, promote joint construction and sharing with more countries, and provide fundamental support for advancing the high-quality development of the BRI

Introduction of SESEC Project



The Seconded European Standardization Expert in China (SESEC) is a visibility project co-financed by the European Commission (EC), the European Free Trade Association (EFTA) secretariat and the three European Standardization Organizations (CEN, CENELEC and ETSI). Since 2006, there has been four SESEC projects in China, SESEC I (2006-2009), SESEC II (2009-2012), SESEC III (2014- 2017), SESEC IV (2018- 2022) and SESEC V (2022-2025). Dr. Betty XU is nominated as the SESEC expert and will spend the next 36 months on promoting EU-China standardization information exchange and EU-China standardization cooperation.

The SESEC project supports the strategic objectives of the European Union, EFTA and the European Standardization Organizations (ESOs). The purpose of SESEC project is to:

- **Promote European and international standards in China;**

- **Improve contacts with different levels of the Chinese administration, industry and standardization bodies;**
- **Improve the visibility and understanding of the European Standardization System (ESS) in China;**
- **Gather regulatory and standardization intelligence.**

The following areas have been identified as sectoral project priorities by the SESEC project partners: Internet of Things (IoT) & Machine-to-Machine(M2M) communication, communication networks & services, cybersecurity & digital identity, Smart Cities (including transport, power grids & metering), electrical & electronic products, general product safety, medical devices, cosmetics, energy management & environmental protection (including eco- design & labeling, as well as environmental performance of buildings).