Fostering Quality, Green Development in the People’s Republic of China through Public–Private Partnerships and Thematic Financing

KEY POINTS

- This brief discusses the challenges of financing high-quality, green development in the People’s Republic of China (PRC). It suggests how public–private partnerships (PPPs) and thematic finance can be used to invest in development projects and encourage private sector participation in support of high-quality development, green development in the PRC.
- A thematic fund can pool resources to address a single issue—such as green investment, health, ocean protection, or crisis response. It can help crowd in private capital and create flexibility in financing multiple projects that tackle multisector challenges.
- Bankability, including the perception of risk, is a key consideration for private sector financing of development initiatives. ADB blends its sovereign financing with private capital to help mitigate financial risks and make investment projects bankable.
- Collaboration among policy makers, multilateral organizations, and the private sector is crucial in filling gaps in development funding. ADB’s experience with PPPs and thematic finance provides examples of how this can work.

INTRODUCTION

In a departure from a long-standing previous emphasis by the People’s Republic of China (PRC) on the speed of economic growth, the PRC’s 14th Five-Year Plan for National Economic and Social Development for 2021–2025 (the Plan) and its 2035 Vision highlight high-quality and green development. The Plan also focuses on achieving eco-sustainability in growth and improving the quality of life.¹ The government focus in pursuit of these overall goals includes innovation-driven growth, low-carbon development, rural vitalization, social inclusion, and improved services for the aging population and public health care.²

The current Asian Development Bank (ADB) country partnership strategy (CPS) for 2021–2025 reinforces support for the Plan goals through three strategic priority pillars: environmentally sustainable development, climate change adaptation and mitigation, and aging society and health security.³ These development priorities

mean new directions for ADB’s investments and engagement in the PRC and an emphasis on innovative financing that aligns with operational priorities and strengths.

DEVELOPMENT AND INVESTMENT PRIORITIES OF THE PLAN

The Plan’s central development themes include several priority areas intended to boost sustainability as detailed below.

Green development. The Plan lays out actions to achieve green development and harmonious coexistence between humans and nature. This is a primary theme centered on improving the quality and stability of ecological and environmental systems and accelerating the country’s green transformation. Targets have been set for 2025, including increasing (i) the days with good air quality in cities to 87.5% from 87.0% in 2020; (ii) the share of surface water at or better than grade III to 85.0% from 83.4% in 2020; and (iii) forest coverage to 24.1% from 23.2% in 2019. These may appear to be small increments on the relatively high baselines, but the size of the PRC means they would represent large quantitative gains.

The Plan also calls for implementation of projects for environmental protection and green and low-carbon development. This includes strengthening the circular economy by increasing the recycling of construction waste, reducing production and use of plastics, and supporting waste-to-energy initiatives. The Plan’s energy efficiency targets a 13.5% reduction in energy consumption per unit of gross domestic product (GDP) during the Plan period, and an 18.0% decline in carbon dioxide emissions per unit of GDP to promote green energy transformation. The Plan specifies measures and directions to achieve these objectives and implement the PRC’s 2030 nationally determined contributions. The focus areas are containment of fossil fuel consumption; promotion of clean, safe, efficient, low-carbon energy use; and reduction of methane and other greenhouse gases.

Responding to an aging society. The pace of population aging in the PRC, already among the fastest in the world, is accelerating. Due to longer life expectancy and declining fertility rates, about 18.9% of the country’s 1.4 billion people were older than 60 by the end of 2021. This share will grow to 20.0% by 2025, and to 30.0% by 2035, based on Ministry of Human Resources and Social Security projections. The Plan calls for a robust response to this challenge through a national strategy. This involves the development of elder human resources, and proposals to improve basic elder care systems, develop inclusive elder care services, and coordinate the development and supervision of elder care commitments within the elder care industry. The creation of new forms of elder care services is also planned, along with building a system that fully integrates home, community, and institutional elder care into existing systems as part of an overall service ecosystem. Additional developmental approaches under the Plan include a series of infrastructure rehabilitation projects.

Improving public health. The Plan calls for improving the health of the population by building a more robust and people-centered approach. This includes reforming the disease prevention and control system, as well as strengthening disease surveillance and early warning, health risk assessment, epidemiological investigation, inspection and testing, and overall emergency and first response systems. Community-level public health-care systems are to be strengthened, along with the implementation by medical institutions of their public health-care responsibilities to innovate, prevent, and coordinate health-care systems. First-response capacities will be improved. This includes early warning and handling mechanisms for public health emergencies, laboratory testing networks, systems for medical treatment, scientific and technological support, and material support that enhances the capacity to respond to public health-care emergencies. Infectious diseases are also to be the central focus of the national health-care response system in the post-coronavirus disease (COVID-19) era. In infrastructure, for example, large existing buildings are to be retrofitted and equipped with service interfaces for the combination of epidemic control and recovery.

High-tech infrastructure and digital economy. The Plan also aims to speed up development of new high-tech infrastructure that supports digital advancement, smart upgrading, and digital economic solutions. The transformation will be effected via cloud computing, big data, both the Internet of Things and the industrial internet, block chain, artificial intelligence, and virtual and augmented reality. The goal is a fully digital society and digital governance. The share of the digital economy is targeted to increase to 10.0% of GDP by 2025 from 7.8% in 2020.

New approach to urbanization in counties. The administrative divisions of the PRC can be broadly divided into six levels: central, provincial, municipal, county, township, and village. The country has 2,843 counties. They form a vital part of the local governments and serve as a bridge between urban and rural areas. These counties are to receive support under the Plan to make greater efforts to upgrade and expand the capacity of municipal public services and utilities, environmental sanitation systems, and other infrastructure facilities. The aim is to enable counties to play a bigger role in accelerating economic development and upgrading the quality of life for the people in their community, thereby supporting the attainment of national goals more effectively. The government will prioritize the development of counties in the central and western regions and the urbanized areas in the northeast of the country that trail southern and eastern coastal areas in development. Development support is also envisioned by the Plan for counties in major agricultural production areas and key ecological function zones.

---

Rural vitalization. In line with its plans to transition to high-quality and green development and improve well-being in both urban and county areas, the government has made rural vitalization a national priority in the National Strategic Plan for Rural Vitalization (2018–2022), which was encompassed in the Plan. It envisions strengthening the role of industry alongside agriculture in the countryside, and supports rural development. It aims for a new coordinated, complementary, and mutually beneficial relationship between the cities and the countryside and between industry and agriculture. To strengthen operational efficiency, sector productivity, and low-carbon development, priority is given to supporting green and blue rural infrastructure, such as irrigation, farm-to-market roads, post-harvest facilities, and water supply. These areas are seen as prime drivers of green, inclusive rural development. Green agricultural practices and nature-based solutions are also key priorities and intended to protect the environment as the Plan’s targeted societal and economic changes are pursued.

FINANCING CHALLENGES FOR ACHIEVING THE DEVELOPMENT PRIORITIES

Against this ambitious background, the financing needs for the Plan are large. Complex challenges will have to be addressed including the following priority areas.

Green development. The government has called for vigorous development of green finance to support a green, low-carbon, circular economy. It is targeting improvements in the financial system for green investments through the establishment and expanded use of green bonds, green credit, asset securitization, green funds, and other financial products. These include carbon finance, climate bonds, blue bonds, environmental pollution liability insurance, and climate insurance. However, use of these financing tools has been limited so far. This is due to the low awareness of green investment opportunities across the country’s financial community. The awareness and uptake of these green finance mechanisms needs to be promoted and expanded for the PRC’s green development ambitions to be fully achieved.

Aging society. The PRC’s aging population is growing too fast for traditional public sector methods of financing elder care. The government began developing new policies in 2013 on the future direction, principles, and standards of elder care finance. Financing sources include the country’s basic endowment insurance system for pension funds, elder care target funds, and commercial bank wealth management products that serve as investment instruments for elder care services. Nonetheless, a large gap remains between the demand and supply of inclusive, affordable, and high-standard elder care, although this opens large opportunities for domestic and foreign investor participation in the elder care sector. To better access this financing, the government and its development partners need to support knowledge products, provide technical advice, and facilitate the learning curve on implementing elder care projects.

Public health. The government is the primary public health provider, but the funding arrangements for long-term public health infrastructure and services are still underdeveloped. The PRC’s acute public health needs, given its highly dense and mobile population, have been made more apparent in the wake of the global pandemic, and a widely recognized higher risk that infectious diseases may break out more frequently. The health systems need to be strengthened in the areas of prevention and rapid health emergency response. Public sector funding for health is limited; to meet the challenge of delivering new and efficient public health infrastructure and services, and improving emergency preparedness and response, viable sustainable funding arrangements are needed.

Development of high-tech infrastructure and transition to a digital economy. The PRC already has some of the highest digital adoption and connectivity rates in the world, but continued development of its high-tech infrastructure and the accomplishment of its planned digital transformation cannot be led by the government alone. Private companies tend to incorporate new technologies into their operations faster than the public sector due to market and competitive pressure to boost efficiency and productivity. While the private sector is clearly suited and positioned to take the lead in digital innovation, adaptation, and new emerging technologies, attracting the additional private sector investment to do so remains a challenge. The Plan calls for the opening of diversified channels for new high-tech infrastructure and digital economy investments, but it remains to be seen whether these opportunities will actually alter the current flows and priorities of the available sources of finance.

New approaches to urbanization in the counties. The government has designated and tasked banks to provide credit lines for projects to urbanize the country’s counties. It may also arrange preferential fiscal funds or local government special bonds for direct investment, capital injections, investment subsidies, or loan interest discounts to fund this effort. The risk here is that numerous disjointed financing initiatives may lead to unhealthy competition and result in an ineffective allocation of financial resources.

---

Rural vitalization. Although the government encourages the private sector to invest in agriculture as part of the Plan’s rural vitalization policy, agricultural enterprises in rural areas face difficulties obtaining bank financing due to the perceived high financial risk. The lack of suitable financing is a disincentive for private sector participation in the agricultural aspects of the rural vitalization.

**Key financing challenges overall.** In summary, key financing challenges to the Plan include the following:

(i) a shortage of public sector funding to meet the various Plan investment needs,
(ii) insufficient financing mechanisms and instruments to catalyze inflows of private capital,
(iii) disjointed financing initiatives due to a lack of coherent and systematic themes, and
(iv) limited awareness of Plan-related financing and investment opportunities.

---

**MEETING DEVELOPMENT CHALLENGES THROUGH PUBLIC–PRIVATE PARTNERSHIPS AND THEMATIC FINANCING**

Practical financing solutions must address key financing challenges. The focus and central idea of these responses is the adoption of public–private partnerships (PPPs) and thematic finance framework mechanisms to raise awareness in the financial community of the investment opportunities provided by the Plan, and to mobilize private sector funding to fill the current financing gaps.

**Public–Private Partnerships**

PPPs are an effective, widely accepted, and attractive way to supplement limited public sector resources for infrastructure and services funding. PPPs improve implementation and have been proven to generate employment, enhance knowledge, improve infrastructure and services, and provide value added and quality by bringing private sector efficiencies into the delivery, management, and technologies of development projects. The PRC has used the PPP model to deliver infrastructure and services since the early 1990s. The model was further promoted with an update of the government’s PPP program in 2014.⁹

**Green development in the energy and transport sectors.** The use of renewables, improved energy efficiency, and green modes of transport will facilitate the high-quality and green development goals of the Plan. This includes undertakings to generate electricity from low-carbon sources, optimize the use of energy, and shift to green transport modes to reduce fuel consumption and greenhouse gas emissions. Applying the PPP model to these key areas adds private sector financial resources and long-term investment certainty to projects that might otherwise lack sufficient and/or guaranteed long-term public sector financial support. PPPs also benefit from the use of up-to-date private sector technologies. They are an effective and efficient way to finance the deployment of low-carbon technologies and generally accelerate green development in the PRC’s energy and transport sectors.

**Elder care and public health.** PPPs are also considered efficient and valuable tools for delivering quality elder care and health-care services, sectors where they can supplement strained public financial resources, introduce technological innovation, and provide sound management expertise. The growing middle- and upper-income households in the PRC can afford premium elder care and health-care services provided by the private sector. The infusion of private sector finance via PPPs will allow the government to target its limited financial resources to subsidized elder care services for those in need.

**High-tech infrastructure and transition to a digital economy.** PPPs are well suited to meet the PRC’s transition to a digital economy. One area of focus is core digital infrastructure assets, including data centers, fixed broadband networks, and telecommunications towers. Advanced digital technologies will also need software-based services and products. Growing budgetary constraints mean that private investments are needed. For instance, under a PPP model, the government can fund the core digital infrastructure assets, which are generally less commercially attractive to the private sector, and private investments can cover the advanced digital technologies that usually have commercially valuable applications.

**Urban development and rural vitalization.** Urban development and rural vitalization require financial resources in various sectors, including housing, water and sanitation, and waste management. Many local governments lack the necessary fiscal resources, calling for increased private sector financing through PPPs. One issue to consider is that not all investment projects are revenue generating and commercially viable enough to attract private financing. This challenge can be tackled by bundling a variety of sector investments into a mix that makes the integrated PPP bankable. Integrated cross-sector PPP arrangements give urban development and rural vitalization undertakings a coherent financing platform avoiding the unhealthy competition and inefficient financial resource allocation when sector and individual projects are contracted individually.

**Thematic Finance**

Thematic finance is a global megatrend that focuses on long-term and crosscutting themes versus specific PPP sectors. Sectors and themes are often interlinked, especially as sector definitions have drifted through time and multisector solutions to complex development challenges are increasingly needed.

---

Thematic finance is gaining traction as a mode for sustainable investments by private, institutional, and commercial participants as the emergence of broad new challenges requiring multifaceted solutions have blurred the lines between traditional sectors. A fund aligned with thematic finance usually pools financial resources from multiple sources for potential investments in whatever sectors or projects fall under a single theme—often an appropriate way to approach complex multisector development challenges. The thematic fund can apply one or many different financial instruments to an investment, including debt, equity, and credit enhancement. Given its nature, thematic finance can facilitate the crowding-in of private sector capital and create flexibility in funding multiple investments.

**Thematic green finance.** Financing under the greening theme includes investments in climate change mitigation and adaptation; environmental protection; ecosystem protection; and restoration, biodiversity, and pollution reduction. Green finance covers the transition from carbon-intensive industry to low-carbon development for the reduction of greenhouse gas emissions.

**Thematic blue finance.** Sustaining healthy marine ecosystems is critical to life on earth. Investments falling under the theme of blue finance are intended to restore or maintain marine health or to generate associated social and economic benefits. The investment needs are large. Blue finance in ocean health and marine economy projects generally focuses on four areas: creating inclusive livelihoods and business opportunities in sustainable tourism and fisheries; protecting and restoring coastal and marine ecosystems, corals, and key rivers; reducing land-based sources of marine pollution, including plastics, untreated wastewater, and agricultural runoff; and improving sustainability in port and coastal infrastructure development.10

**Thematic health and elder care finance.** The theme of financing elder care and health care has taken on growing importance in the PRC as policy makers have realized the full scale of population aging and the broad related socioeconomic challenges. These include not only the immediate need to care for the rapidly growing segment of the aged, but also the wider demographic effects. Better health care leads to greater longevity, which benefits national productivity and economic growth. More secure guarantees of adequate care for the elder can reduce the need for younger generations to save and bolster their spending and the PRC’s transition to a more consumption-based economy. Investments to raise the quality of life through livable, green, sustainable cities also fall generally under this theme since these support better health and longevity as well. Strengthening the capacity of frontline health systems to respond to current and future pandemics does the same.

**Thematic contingent finance.** Contingent finance covers the need to respond to many types of crises and disasters, e.g., disasters caused by natural hazards, economic recessions, terrorist attacks, the major effects of climate change, or a recurring pathological disease (endemic or pandemic). Although the if and when of such an event are obviously unclear, the risk must be recognized and financial facilities selected, designed based on estimated likelihood and impact, and put in place for use in a timely fashion should the event occur.

As thematic finance is more than just finance and includes knowledge and technical expertise, strategic partners in finance and knowledge are key drivers to the evolving development themes. More specifically, evolving themes are gaining more importance for near- and immediate-term solutions. Establishment of a funding pool and applying finance and institutional capacity development components to bring in expertise, promote knowledge dissemination, manage risks, strengthen policies, and improve governance can benefit thematic finance solutions in the PRC.

**USE OF ADB FUNDING FOR PUBLIC–PRIVATE PARTNERSHIPS AND THEMATIC FINANCING**

ADB’s approach to financing in the PRC centers on the mobilization of private sector funding for investments in development priorities. Bankability, including the perception of risk, is the overarching factor when the private sector considers funding for high-quality and green development projects in the PRC. ADB’s role as a finance facilitator and risk mitigant is especially valuable in confronting such national and worldwide megachallenges as climate change and disaster risks. ADB blends its sovereign financing with private sector capital to help make investment projects bankable. ADB financing and the overall low interest rate and long loan tenor can help a project reduce overall weighted average cost of capital and boost project financial internal rate of return to improve bankability. ADB’s financial participation allows project risks to be shared. This and ADB’s reputation as an honest broker can encourage private sector partners to participate. Assurance that these projects will abide by ADB’s environmental and social safeguards as well as contribute to gender mainstreaming and institutional development are added benefits.

ADB has been supporting the development of the PRC since 1986. The partnership has evolved alongside the country’s rapid economic, social, and environmental transformation. To promote the government efforts to achieve high-quality and green development specified in the Plan, ADB’s CPS for the PRC for 2021–2025 focuses on three Plan-related strategic priorities: environmentally sustainable development, climate change adaptation and mitigation, and an aging society and health security (footnote 2). ADB financing under the CPS will help the PRC meet the Plan’s goals by strengthening the bankability and mitigating the financial risks of projects using the PPP model and thematic finance. Given the size of the PRC and its growing importance

---

in the world, the high-quality and green development as well as related financing will generate regional and global public goods, knowledge, and the best practice for replication.

Public–Private Partnerships
ADB has piloted three elder care PPP projects in the PRC in the amount of $300 million since 2018. Building on ADB’s knowledge and experience in elder care and PPPs, those projects have helped establish an elder care system, strengthened service provision, and enhanced private sector involvement in elder care. Overall, ADB’s involvement in PPPs has helped advance cooperation between the public and private sectors by strengthening the enabling environment, building capacity, and improving project bankability. ADB’s value added in this role derives from a deep understanding of key sectors and challenges in the country, and its experience and knowledge of PPPs in the region. An example is reforms in tariff and regulatory requirements that have mitigated risks during the initial phase of PPP projects and helped make them bankable. In addition, ADB’s extensive experience in the finance sector and the public management of the PRC provides a solid knowledge platform to develop PPP financing. The combination of technical assistance and financial support allows a “learning-by-doing” approach for the government to take concrete PPP actions. ADB financing allows this support to be tailored to project needs to bring private sector funds, technologies, and efficiency. Given the size of the PRC, ADB–supported PPPs generate regional and global public goods, knowledge, and the best practice for replication.

Thematic Finance
The ADB Green and Blue Bonds program is a clear example of thematic finance at work. The bonds are issued according to eligibility criteria of the underlying projects funded by ADB. This is thematic finance for climate change, environmental sustainability, and ocean health projects. The proceeds from the bonds are allocated exclusively to ADB for projects that meet the green and blue eligibility criteria.

Another ADB thematic finance initiative is the ASEAN Catalytic Green Finance Facility (ACGF)—an initiative of the ASEAN Infrastructure Fund—which was launched in 2019 to support green infrastructure investments in Southeast Asia. The ACGF provides members of the Association of Southeast Asian Nations (ASEAN) with technical assistance and access to more than $1 billion in loans from cofinancing partners. The ACGF supports government identification and preparation of commercially viable green infrastructure projects. ACGF loans are used to cover up-front capital investment costs. In 2021, ADB introduced an Energy Transition Mechanism (ETM), a partnership with developing member countries, to speed up the transition to clean energy. ETM adopts a blended finance approach to accelerate the retirement of coal-fired power plants and replace or repurpose them for clean power generation, storage, and grid upgrades. The ETM mechanism pools funds from multilateral banks, private institutional investors, philanthropic contributors, and long-term investors.

In the PRC, ADB provided a $100 million loan in thematic financing for the Shandong Green Development Fund Project, which is designed as a public–private financing facility targeting high-tech, climate-resilient subprojects and green businesses and investments. With this financing, the project introduces an innovative leveraging mechanism to catalyze private, institutional, and commercial capital for climate-friendly infrastructure and business in the PRC. ADB also financed the Bank of Xingtai Green Finance Development Project, which helps the Bank of Xingtai, a regional city commercial bank in Hebei Province, to establish a green finance information technology system that (i) certifies green subprojects; (ii) implements an environment, social, and governance risk framework; and (iii) discloses framework-related information. The project will introduce international best practices on green finance to the Bank of Xingtai. To support marine environment protection and sustainable blue economies in the PRC, ADB provided financing to Bank of Qingdao through a blue bond investment. ADB financing supported the issuance of the first blue bond by a PRC city commercial bank and promoted the development of sustainable ocean economy.

In 2022, ADB supported the Bank of Huzhou Decarbonizing Micro, Small, and Medium-Sized Enterprises Project, which entails ADB providing financing to Bank of Huzhou to scale up energy efficiency in micro, small, and medium-sized enterprises in the PRC, reducing their carbon footprint. Implementing thematic finance also requires strengthening institutional capacity, particularly in the areas of standard setting, monitoring, and reporting measures, and disclosure requirements in the financing process. As highlighted in the current ADB CPS,
institutional capacity strengthening is a key focus for operations in the PRC. The institutional capacity strengthening will enhance knowledge and experience in expanding the use of thematic finance for high-quality and green development.

CONCLUSION

ADB’s experience in PPPs and thematic finance can help achieve the PRC’s high-quality green goals. The Plan’s ambitious goals and projects for innovation and building green projects, addressing elder care in an aging society, strengthening public health, growing and upgrading the technology sector, and urbanizing counties and revitalizing rural areas will require massive financial resources and capacity assistance. The Plan will also require that financing challenges related to investor perceptions of high risk and a lack of commercial and financial viability in projects and the need for more and greater uptake of financial instruments be overcome.

Collaboration between policy makers, multilateral organizations, and the private sector is needed if the appropriate mechanisms are to be put to work to resolve these financing challenges. ADB financing through PPPs and thematic finance is a good model of how this can work. ADB’s long background in adopting and implementing various financing approaches to changing regional development needs, and its ability to combine knowledge and catalytic financial instruments can involve the private sector more deeply in delivering the Plan’s high-quality and green development goals.