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Second Party Opinion

Jinan City Construction Group Ltd. Co.
Sustainable Finance Framework

Oct. 29, 2024

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Location: China

Sector: Construction and Engineering

Alignment With Principles

Aligned = ✓ Conceptually aligned = ○ Not aligned = ✗

- ✓ Social Bond Principles, ICMA, 2023
- ✓ Social Loan Principles, LMA/LSTA/APLMA, 2023
- ✓ Green Bond Principles, ICMA, 2021 (with June 2022 Appendix 1)
- ✓ Green Loan Principles, LMA/LSTA/APLMA, 2023
- ✓ Sustainability Bond Guidelines ICMA, 2021

See [Alignment Assessment](#) for more detail.

Strengths

Jinan City Construction Group Ltd. Co. (JCCG)'s eligible projects participate in implementing Shandong province's policies. In particular, the company's social projects support the local government's mandate to provide residents access to affordable housing, basic infrastructure, and public services.

Weaknesses

Net proceeds may finance facilities and equipment that use fossil fuel throughout their value chain. JCCG has stated that it will explore clean energy options. Yet, lacking a concrete plan to reduce exposure to fossil fuels may introduce lock-in risks.

Social projects are broadly defined and have limited safeguards to contain associated environmental risks. Moreover, social impact indicators are largely based on outputs rather than outcomes.

Areas to watch

The lack of a framework with quantifiable improvement thresholds for all green eligible projects, such as clean transportation.

Likewise, the point-based systems of green building certifications do not need minimum energy performance improvements. Relying solely on certifications as eligibility criteria limits insight into the potential impact of the invested projects. The company requires minimum energy savings for eligible certified green buildings. This requirement tempers the risk.

JCCG's limited disclosures. It is unclear how the company manages environmental and social considerations beyond eligible projects under this framework. This is common for Chinese local government-owned entities.

Eligible Green Projects Assessment Summary

Over the two years following issuance of the financing, JCCG does not have an indicative allocation among the eligible categories stated in the framework.


Eligible projects under JCCG's sustainable finance framework are assessed based on their environmental benefits and risks, using Shades of Green methodology.

Green Building and Energy Efficiency

 **Light green**

Development, construction, refurbishment, maintenance, and operations of buildings that meet regional, national, or internationally recognized certifications

Clean Transportation

 **Medium green**

Construction, maintenance, and operation of new energy vehicle charging stations

See [Analysis Of Eligible Projects](#) for more detail.

Issuer Sustainability Context

This section provides an analysis of the issuer's sustainability management and the embeddedness of the financing framework within its overall strategy.

Company Description

Established in 2017, JCCG is a state-owned entity based in Jinan city of China's Shandong province. The company is wholly owned by the Jinan State-Owned Assets Supervision and Administration Commission (SASAC).

JCCG primarily engages in the construction, engineering, and operation of urban infrastructure projects (such as public facilities and roads). It is also engaged in property development, leasing and management services, sale of petroleum products, supervision and inspection services, operation and maintenance services, and toll operations.

In the three-month ended March 31, 2024, the majority of JCCG's revenue of Chinese renminbi (RMB) 5.5 billion (US\$800 million) came from engineering and construction (75%). Real estate sales accounted for 12%, and the other segments for 13%. Similarly, engineering and construction contributed to the majority (53%) of JCCG's gross profit RMB675 million (US\$96 million) in the period, followed by real estate sale, leasing, and property management (28%). Other segments rounded up less than 20%.

Material Sustainability Factors

Climate transition risks

Engineering and construction companies contribute to global climate change mainly through embedded carbon in key materials such as steel and concrete, and greenhouse gases emitted during the project-use phase. Infrastructure development activities also produce significant emissions due to land use changes. Likewise, entities could be exposed to reputational risks if they participate in carbon-intensive projects. Incremental climate-related investments require significant capital outlays but reduce obsolescence risk associated with changes in regulation or climate goals. In the longer term, low-carbon properties may achieve higher cost efficiencies or attract premium rents, enhancing their value. JCCG's petroleum business indirectly contributes to the prolonged use of commodities that involve carbon-intensive mining activities in the value chain. This could heighten the carbon lock-in risks and does not align with a low-carbon climate resilient future. China has national commitments to reach peak carbon emissions before 2030 and achieve carbon neutrality by 2060.

Physical climate risks

Physical climate risk is a material factor because of potential damages to assets and disruptions to many stakeholders' and JCCG's own operations. Jinan city is exposed to acute physical risks--such as typhoons, storms, and floods--that could impair, disrupt, or even destroy assets, limiting the availability of essential infrastructure including roads. Over time, chronic risks--increase in precipitation patterns, and sea level rise--may shorten the useful life of infrastructure. The likelihood of asset damage due to extreme weather increases without adaptation, more so in regions exposed to climate hazards. The impacts of such events can also be much broader if key assets--such as bridges, tunnels, or roads--are unavailable for extended periods. Severe weather events can add risks during the construction phase. They could require investments to manage potential effects or, in severe cases, relocation of tenants, and could also necessitate designing and building of infrastructure that is resilient to known and projected climate hazards. Unabated climate change could lead to estimated GDP losses of 0.5%-2.3% as early as 2030 for China, according to the World Bank. Chinese provinces account for half of the most exposed global spots to extreme weather events by 2050. Under an Representative Concentration Pathways 8.5 scenario, Shandong province is ranked 2nd globally in its exposure to aggregated damage risk in 2050 (source: 2024 XDI Gross Domestic Climate Risk Report).

Biodiversity and resource use

Key challenges with construction activities include extensive use of natural resources, and pollution to air, land, and water in the form of emissions, disposal, or potential leakages. The construction industry faces significant resource-use issues. Key challenges include energy consumption, extensive material use, and water depletion. Resource-intensive materials and practices pose risks to finite resources. Additionally, water scarcity concerns arise from construction-related water usage. Addressing these problems through resource-efficient designs, alternative materials, and responsible management of resources is essential to reduce the industry's impact on both local habitats and global footprints. China's Biodiversity Conservation Strategy and Action Plan (2023-2030) aims to improve biodiversity conservation. Its focus is on addressing biodiversity losses and sustainable use of biodiversity, along with benefit sharing through 27 priority action plans and a target to protect and restore 30% of degraded ecosystems on land, inland waters, coasts, and oceans by 2030 (source: China Development Brief).

Impact on communities

Large infrastructural construction projects require significant land hectareage and, at times, pass through rural/indigenous communities and conflict areas, as well as densely populated areas. The projects may therefore require voluntary or involuntary resettlement. Infrastructural developments in rural regions play a vital role in enhancing access and affordability for remote populations. These developments improve transportation, utilities, communication, education, healthcare, and agriculture, and help connect rural communities to job opportunities, essential services, and markets. These initiatives help reduce transportation costs and contribute to the overall well-being and economic growth of rural areas. However, the projects can be highly disruptive to existing communities, particularly in cases of redevelopment. This may include permanent demolition of existing structures (in some cases involving land acquisition).

Issuer And Context Analysis

The framework's eligible green projects aim to address climate transition risks, while social projects endeavor to enhance residents' access to affordable houses, infrastructure, and public services. These are all material sustainability factors for JCCG. Nevertheless, eligible projects could introduce sustainability considerations such as physical climate risk, biodiversity impacts, and impacts on local communities.

While the eligible projects should contribute to China's 14th Five-Year Strategic Plan for the development of a low-carbon economy and facilitate the socioeconomic development of Jinan city, the company does not have specific sustainability targets. JCCG mainly manages climate change through energy efficiency measures for projects such as green buildings. It also facilitates the use of electric vehicles by constructing charging infrastructure. These steps aim to contribute to China's carbon neutrality goal by 2060, and Shandong province's Three-Year Action Plan for a Low Carbon Development (2023-2025). However, targeted measures have not been translated into a wider company-specific decarbonization target. Similarly, JCCG does not maintain any social targets despite inclusion and welfare being one of its sustainability core areas.

Although JCCG's petroleum products business accounted for less than 2% to the company's revenue and gross profit in 2023, the segment indirectly contributes to the exploitation and refining of raw materials typically used in energy-intensive and high-emitting activities. This perpetuates the use of fossil fuel and leads to a slower transition toward low-carbon energy sources. An absence of a concrete transition plan may highlight a persistent and heightening transition risk.

JCCG has yet to systematically measure physical climate risk, despite its material exposure due to the fixed nature of its assets. The region where the company operates is particularly exposed to typhoons, rainstorms, and floods. JCCG mainly relies on project-level feasibility studies during the project design stage--a standard procedure in China--to establish systems to manage and mitigate impacts of adverse climate on its operations and assets. Nevertheless, the company has limited public disclosure on how it addresses physical risks in general. It is also yet to systematically assess its portfolio's physical risk exposure. This situation is largely comparable to that for other local government-owned entities in China.

JCCG's construction activities could introduce biodiversity issues. The company's control in this area is largely limited to project-level feasibility studies based on compliance requirements. During project design stage, it will appoint a third party to conduct a feasibility study and an environmental and social impact assessment. Government approval and public consultations will be required for construction on greenfield areas, as well as on the mitigation measures. Any demolition project will be discussed and will need to agree with local policies.

Although large infrastructure projects could disrupt nearby communities, eligible social projects play a vital role in addressing poverty in rural parts of Jinan city. Infrastructure development projects could displace, and require the resettlement of, some rural households. JCCG will provide monetary compensation and resettlement houses to reduce disruptions for the impacted populations. Similarly, the construction of free roads will improve the connectivity and living standards of rural villagers. Public healthcare and education projects will also improve access to inclusive essential services. The company requires environmental and social impact assessments during the project design stage.

JCCG has yet to disclose its sustainability performance. This limits insights on the company's agenda to address material sustainability considerations and on how its operations beyond the projects included in this framework may impact its consolidated sustainability performance. There are no concrete plans or timelines for disclosing more comprehensive information, such as company-level performance, targets, and initiatives.

Alignment Assessment

This section provides an analysis of the framework's alignment to the Social and Green Bond/Loan principles and the Sustainability Bond Guidelines.

Alignment With Principles

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✓ Use of proceeds

We assess all the framework's green project categories as having a green shade and consider all social project categories to be aligned. JCCG commits to allocate the net proceeds from the framework exclusively to eligible green and social projects. Please refer to the Analysis of Eligible Projects section for more information on our analysis of the environmental and social benefits of the expected use of proceeds.

✓ Process for project evaluation and selection

JCCG's sustainable project working group (SPWG) comprises representatives from various functions, including corporate management, finance, legal and contracts, construction management, quality and safety, planning and development, as well as engineering. The SPWG will meet at least once annually to discuss and select projects according to the framework's eligibility criteria. Shortlisted projects will be presented to the company's board of directors for approval. The framework's green projects refer to the China Green Bond Endorsed Projects Catalogue. The company will identify and manage potential environmental and social impacts associated with the financed projects based on the environmental and social impact assessments (ESIA). Mitigation measures will be implemented during the construction stage. The framework's exclusion criteria reference the International Finance Corp.'s exclusion list, covering topics such as weapons and munitions, alcoholic beverages, tobacco, gambling, radioactive materials, and forced labor.

✓ Management of proceeds

The net proceeds will be deposited in JCCG's general funding accounts and managed by the company's finance team. JCCG will maintain a register to track the allocation of net proceeds. The company commits to monitoring the net proceeds of all outstanding transactions, including the adjustment of proceeds to match allocations that comply with the eligibility criteria, if need be. Pending allocation, proceeds will be held in short-term deposits. The company will disclose the types of temporary placement to investors.

✓ Reporting

JCCG will report at least annually the allocation of net proceeds and the impact of financed projects until full allocation. The information will be disclosed through company announcements, social media, or future sustainability reports. The allocation reporting will also include project description, the balance of the unallocated proceeds, and material developments or controversies related to the financed projects. Impact reporting will include both the expected and actual environmental and social impacts of financed projects, as well as the calculation methodologies.

Analysis Of Eligible Projects

This section provides details of our analysis of eligible projects, based on their environmental benefits and risks, using the "[Analytical Approach: Shades Of Green Assessments](#)," as well as our analysis of eligible projects considered to have clear social benefits and to address or mitigate a key social issue.

Green project categories

Green Building and Energy Efficiency

Assessment

 Light green

Description

Development, construction, refurbishment, maintenance, and operations of buildings that have received, or expect to receive the following criteria:

- The People’s Republic of China’s Assessment Standard for Green Building – 2 star or above
- Other similar recognized standards

The project location will be approved by the planning department authority in accordance with national laws and regulations to avoid construction in protected areas. The company will adopt measures, such as:

- Use permeable ground to reduce the heat island effect
- Control light pollution by avoiding the use of large glass curtain walls
- Adopt a high-efficiency light source and intelligent lighting system to save energy
- Adopt water-saving irrigation and use water-saving appliances, along with simple decorative components, to conserve material resources
- Implement sound insulation and noise reduction for buildings adjacent to major traffic roads

Analytical considerations

- Green buildings support climate change mitigation by alleviating greenhouse gas emissions associated with energy use. They could also have other environmental benefits related to water and waste management. However, construction activities introduce other issues such as energy performance and emissions associated with building materials. Physical climate risks are material considerations for buildings, and new construction may raise biodiversity issues.
- JCCG expects to allocate most proceeds to finance the construction of new buildings (80%), with the remaining allocated to energy efficiency measures of existing buildings (10%) and renovation projects (10%). The company has not specified the indicative split of building types but has stated it will not include the financing of industrial buildings or any buildings that support the fossil fuel value chain activities.
- Construction and renovation involves the use of building materials with embodied emissions and associated climate impacts. JCCG mainly relies on the selected certifications to address a given building’s environmental impact throughout its life cycle. The company has included some examples of measures in the framework, such as material sourcing, energy, and water management. While the company expects eligible certified new buildings to achieve an energy efficiency performance of at least 15% beyond the regional building standards, it has no plan to assess a given building’s life cycle emissions, nor to set any emissions reduction targets for operational phase. This implies that certified buildings do not necessarily guarantee a positive impact from its climate change mitigation objective. We therefore assess this category as Light green.
- JCCG plans to implement energy efficiency measures, such as installing new air conditioning systems or LEDs (light-emitting diodes), and will use of renewable energy sources (e.g. geothermal energy) for heating and cooling the certified existing buildings. It expects these measures to lead to at least 15% improvement in energy efficiency. Similarly, for new constructions,

JCCG has not identified any opportunities to conduct life cycle emissions assessment, or to establish any emissions reduction objective. That limits our assessment to Light green.

- JCCG confirmed that eligible buildings will not have fossil fuel-based equipment. Heating and cooling of new and operational buildings will solely rely on renewable energy sources (i.e. geothermal energy). The lighting system will rely on electricity sourced from the national grid, for which coal is the dominant fuel for power generation.
- The points-based systems of buildings certifications do not necessarily require minimum performance improvements. Required certification levels could be achieved without thoroughly addressing specific environmental issues. JCCG also does not target the highest certification. Similarly, the framework considers other comparable green building standards as eligible, without specifying the certifications, criteria, or performance thresholds. These factors limit insight into the projects' potential environmental impacts.
- Green buildings are exposed to physical climate risks, including flooding, and extreme rainstorms, and rising temperatures. JCCG mainly addresses the risks by implementing measures recommended by the third-party feasibility studies during the project design stage, as required by relevant laws and regulations.
- JCCG has procedures to manage the risks on biodiversity and land use change. For instance, all eligible projects will require approval by the planning department authority to ensure compliance with national laws and regulations. According to the company, constructions will mainly target brownfield sites. Still, it will implement mitigation measures in accordance with the findings from the feasibility study and ESIA, conducted by third-party consultants.

Clean Transportation

Assessment

 **Medium green**







Description

Construction, maintenance and operation of new energy vehicle charging stations

Analytical considerations

- Mitigating greenhouse gas emissions from transportation will be crucial to meet global decarbonization goals, given the transport sector accounts for 23% of global energy-related greenhouse gas emissions, according to the IPCC (Intergovernmental Panel on Climate Change). China is the world's second largest transport carbon emitter following the U.S., and transport accounts for 9% of the national total emissions, according to the World Resources Institute. Fossil fuel powered vehicles also create air pollution, such as nitrogen oxides and sulphur oxides. Investments in electrification and supporting infrastructure are crucial to replacing conventional internal combustion engines with cleaner options.
- Eligible projects will only include charging infrastructure dedicated to electric vehicles (EVs) at car parks serving local residents, and not refueling facilities dedicated to hydrogen. Investments in infrastructure dedicated to EVs is well-aligned with a low-carbon climate-resilient future. But they can be emissions and resource intensive. JCCG said it will maintain an environmental checklist during the procurement process and will consider incorporating green infrastructure to manage emissions and environmental impacts. However, it has not specified what they can be, nor maintained any considerations to embodied emissions or energy saving thresholds. In addition, the company stated that the construction and maintenance of charging piles could also utilize fossil fuels given the lack of market alternatives. These limit our assessment to Medium Green.
- As opposed to EVs, charging infrastructure could be exposed to physical climate risk due to its fixed nature. JCCG stated that it will evaluate the vulnerability of assets and projects to climate weather events and establish necessary contingency plans in its feasibility study, as part of the ESIA process. These appear largely limited to compliance with relevant laws and regulations.
- While EVs offer substantial benefits in decarbonizing the transportation sector, potential lock-in risks exist due to the use of electricity from China's national grid, which coal still largely dominates. EV batteries are also subject to supply chain risks from the extraction of minerals (such as lithium and cobalt). JCCG's capacity (as a charging facility provider) to manage carbon emissions appears limited, relative to that of a car purchaser or manufacturer.

S&P Global Ratings' Shades of Green

Assessments					
Dark green	Medium green	Light green	Yellow	Orange	Red
Description					
Activities that correspond to the long-term vision of an LCCR future.	Activities that represent significant steps toward an LCCR future but will require further improvements to be long-term LCCR solutions.	Activities representing transition steps in the near-term that avoid emissions lock-in but do not represent long-term LCCR solutions.	Activities that do not have a material impact on the transition to an LCCR future, or, Activities that have some potential inconsistency with the transition to an LCCR future, albeit tempered by existing transition measures.	Activities that are not currently consistent with the transition to an LCCR future. These include activities with moderate potential for emissions lock-in and risk of stranded assets.	Activities that are inconsistent with, and likely to impede, the transition required to achieve the long-term LCCR future. These activities have the highest emissions intensity, with the most potential for emissions lock-in and risk of stranded assets.
Example projects					
 Solar power plants	 Energy efficient buildings	 Hybrid road vehicles	 Health care services	 Conventional steel production	 New oil exploration

Note: For us to consider use of proceeds aligned with ICMA Principles for a green project, we require project categories directly funded by the financing to be assigned one of the three green Shades.

LCCR--Low-carbon climate resilient. An LCCR future is a future aligned with the Paris Agreement; where the global average temperature increase is held below 2 degrees Celsius (2 C), with efforts to limit it to 1.5 C, above pre-industrial levels, while building resilience to the adverse impact of climate change and achieving sustainable outcomes across both climate and non-climate environmental objectives. Long term and near term--For the purpose of this analysis, we consider the long term to be beyond the middle of the 21st century and the near term to be within the next decade. Emissions lock-in--Where an activity delays or prevents the transition to low-carbon alternatives by perpetuating assets or processes (often fossil fuel use and its corresponding greenhouse gas emissions) that are not aligned with, or cannot adapt to, an LCCR future. Stranded assets--Assets that have suffered from unanticipated or premature write-downs, devaluations, or conversion to liabilities (as defined by the University of Oxford).

Social project categories

Affordable Housing

Construction, operation, maintenance, and upgrading of affordable housing projects according to government policies.

- Public rental housing at a discounted rental rate (to market rate)
 - Application eligibility should follow local government requirements (criteria based on income, property, etc.)
 - Target group: People with low levels of wealth and income
- Resettlement housing for free to affected groups (mainly residents of villages and shanty towns)
 - Target group: People with low levels of wealth and income.

Analytical considerations

- The construction, maintenance, and upgrade of affordable and resettlement housing help improve living conditions for low-income households. Such practices aim to align with the housing-security initiative under China's 14th Five-Year Plan and "Three Major Projects". Announced in 2023, the "Three Major Projects" initiative focuses on affordable housing, rural vitalization, and public infrastructure for normal and emergency use (see "[China LGFV's Bigger Housing Role: Risk Control Matters](#)," published March 27, 2024).
- JCCG shared that the rental terms of housing units will be set by the local government. Every housing project will have different pricing and financing terms, following the government's internal guidance. Therefore, the company was not able to share indicative and typical pricing details. Nonetheless, JCCG communicated that the rental cost of housing units will be below 90% of the market price, but the extent of discount is unknown. Meanwhile, residents do not need to pay for resettlement housing because such houses are mainly for those affected by the urbanization of rural areas of Jinan city.
- The target population definition references the public rental housing allocation guidance, announced by the Jinan municipal government in July 2024. This adds objectivity to the eligibility criteria. The definition covers houseless families that are living on minimum living allowance and low-income families that have per capita disposable income 60% below the per capita disposable income of an average Jinan urban household. As of February 2024, the 60% boundary of per capita annual disposable income of Jinan city is about RMB37,504 (US\$5,261). JCCG will reference the updated figures determined by the Jinan civil affairs department.
- The development of affordable properties or resettlement housing may involve the relocation of existing residents. JCCG confirms that all demolition and relocation processes comply with relevant laws and regulations, as well as government guidance. Upon determining the demolition and resettlement process, the issuer will undergo consultation sessions to communicate with affected residents on their resettlement needs.
- The construction of residential units raises the issue of real estate's climate resilience and climate transition. In addition, new constructions might use materials with high embodied emissions, such as steel and cement, or those with a direct link to fossil fuels, such as asphalt. There are also potential biodiversity, land use, and pollution impacts. While the framework does not spell out specific performance criteria for the housing units, the feasibility studies and ESIA should include measures to address potential environmental negative impacts.

Affordable basic infrastructure

Construction of roads connecting urban areas and villages

- Target group: Residents in underdeveloped and remote areas: (1) without roads linking the village to the city; or (2) with weak infrastructure. Rural areas and villages with weak and underdeveloped infrastructure refer to those areas focusing on primary industry production, instead of second or tertiary industry

Analytical considerations

- Affordable basic infrastructure covers the construction of roads to improve connectivity in underdeveloped rural areas, or areas where a road network is absent. Following years of sustained investments to advance rural vitalization, the total length of China's comprehensive transportation network has exceeded 6 million kilometers, with 4.6 million kilometers of rural roads, according to China's Ministry of Transport.
- The project aims to improve the quality of life of rural households or villagers living in remote areas of Jinan city. Road infrastructure in underdeveloped areas could improve access to services, allow more efficient transport of goods, and link producers to markets, thereby lifting populations out of poverty. JCCG confirmed access to such infrastructures will be free, maximizing their impact. On the downside, rapid motorization and road expansion will exacerbate road safety problems and increase vehicle emissions.
- Although infrastructural projects may involve clearing and relocation of affected residents, JCCG will follow closely the public consultation procedures, as required by the ESIA. It will also ensure that these residents are compensated based on terms defined by local government regulations.
- Roads will convey mostly fossil-fuel-powered vehicles, with associated climate impacts and local pollution concerns. Roads can also cause ecosystem and biodiversity degradation from habitat fragmentation and direct or indirect land-use change driven by increased economic activity.
- The construction of infrastructure could require the use of materials with high embodied emissions, such as concrete and cement, or those with a direct link to fossil fuels, such as asphalt. There are also potential biodiversity, land use, and pollution impacts. While the framework does not set out specific performance criteria for the infrastructure projects, the feasibility studies and ESIA should include measures to address potential environmental negative impacts.

Access to essential services

Construction, renovation, maintenance, and operation of public service facilities including but not limited to schools, hospitals, nursing homes, and libraries

- Schools and hospitals are public institutions operated by local government agencies, with lower fees compared to private institutions. Nursing homes and libraries are non-profit organizations/public welfare organizations with fees lower than market rates
 - Target group: General public; aging populations (for nursing homes)

Analytical considerations

- Providing access to public essential services in education projects (such as schools and libraries) can contribute to improving education opportunities, reducing illiteracy, and lifting people out of poverty. Healthcare projects (such as hospitals and nursing homes) can enhance patients' access to essential medical care and translate into greater efficacy of existing healthcare infrastructure.
- China has seen a concentration of resources in a few of China's top institutions in the wealthiest metropolitan areas, rather than investments in the country's broad educational system (source: U.S.-China Economic and Security Review Commission). On the other hand, the incidence of, and mortality from, chronic noncommunicable diseases are increasing due to the ageing population. The utilization of basic public health services for the older was high, with the percentage of hypertensive and diabetic patients aged 60 and over who had received a health follow-up within a year are both above 70%. (source: Health Research Policy and Systems).
- Eligible services are key to social inclusion and can enable active participation of all in society and the labor market. They also have other benefits on public health, job opportunities, and financial risk protection. To that extent, the general population as an inclusive target group does not undermine the social benefits of the funded projects. JCCG (as a state-owned entity) will only include public facilities that are either operated and subsidized by the local government, or run by non-profit organizations, as appointed by the local government.
- Eligible projects have a wide range of target populations, which include the general public and aging population (for residents in nursing homes). These projects touch on affordability and accessibility through the provision of subsidized public services.

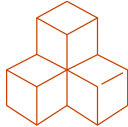




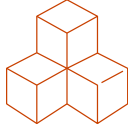
Schools and hospitals will be operated by the local government agencies. According to JCCG, services offered by these institutions will be charged at least 70% below that by private institutions.

- Libraries will be operated by public welfare organizations and nursing homes will be operated by non-profit organizations. JCCG has not specified the pricing terms of nursing homes but stated that the Jinan civil affairs department will be involved in setting the fees to ensure they are below the rates in private nursing homes. The department will also be responsible for publishing the notices of the pricing terms for public references. JCCG stated that public library users will only be charged a small fee for the application of a library card, though it has not specified the amount.
- Climate and environmental risks associated with social projects that require construction of infrastructure can stem from the use of materials with high embodied emissions such as steel and cement, or those with a direct link to fossil fuels such as asphalt. Projects will lead to local pollution, use of fossil-fuel-powered equipment during construction, and land use change and biodiversity impacts from urban expansion. While the framework does not set out specific performance criteria for the infrastructure projects, the feasibility studies and ESIA should include measures to address potential environmental negative impacts.

Mapping To The U.N.'s Sustainable Development Goals

Where the Financing documentation references the Sustainable Development Goals (SDGs), we consider which SDGs it contributes to. We compare the activities funded by the Financing to the International Capital Markets Association (ICMA) SDG mapping and outline the intended linkages within our SPO analysis. Our assessment of SDG mapping does not impact our alignment opinion.

This framework intends to contribute to the following SDGs:

Use of proceeds	SDGs
Green Building and Energy Efficiency	<div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  <p>9. Industry, innovation and infrastructure</p> </div> <div style="text-align: center;">  <p>11. Sustainable cities and communities*</p> </div> </div>
Clean Transportation	<div style="text-align: center;">  <p>11. Sustainable cities and communities*</p> </div>
Affordable Housing	<div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  <p>1. No poverty*</p> </div> <div style="text-align: center;">  <p>11. Sustainable cities and communities*</p> </div> </div>
Affordable Basic Infrastructure	<div style="text-align: center;">  <p>9. Industry, innovation and infrastructure*</p> </div>

Access to Essential Services



1. No poverty*



11. Sustainable cities and communities

*The eligible project categories link to these SDGs in the ICMA mapping.

Related Research

- [Analytical Approach: Second Party Opinions: Use of Proceeds](#), July 27, 2023
- [FAQ: Applying Our Integrated Analytical Approach for Use-of-Proceeds Second Party Opinions](#), July 27, 2023
- [Analytical Approach: Shades of Green Assessments](#), July 27, 2023
- [S&P Global Ratings ESG Materiality Maps](#), July 20, 2022

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