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Second Party Opinion

Putian State-Owned Assets Investment Group Co. Ltd. Green Finance Framework

April 8, 2024

Location: China

Sector: Engineering and Construction

Alignment With Principles

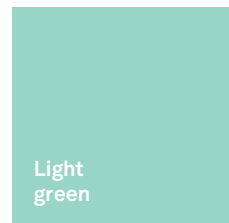
Aligned = ✓ Conceptually aligned = ○ Not aligned = ✗

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

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

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Light green

Activities representing transition steps in the near-term that avoid emissions lock-in but do not represent long-term low-carbon climate resilient solutions.

Our [Shades of Green Analytical Approach](#) >

Strengths

The framework's impact reporting follows the guidance of ICMA's latest Harmonized Framework for Impact Reporting. This adds transparency for investors to assess and monitor the performance of the financed projects.

Weaknesses

The framework does not require any minimum energy performance improvement thresholds. This is even though eligible building projects could create environmental benefits above minimum legal requirements. This is similar to the point-based systems of green building certifications. It limits our insight into the projects' potential or actual impact.

Eligible buildings do not explicitly exclude fossil-fuel based heating systems. The company has communicated that, subject to availability of resources, it expects buildings to rely on electricity and renewables (solar, wind, and hydro). Still, a lack of concrete plan to reduce exposure to fossil fuels may introduce lock-in risks.

Areas to watch

The framework considers other comparable standards as eligible without specifying the certifications or criteria. Furthermore, for certifications listed, the framework does not target the most ambitious levels.

Putian is yet to articulate a plan or initiatives to reduce buildings' lifecycle emissions and indirect exposure to fossil fuels.

Putian's disclosures are limited, and it is yet to publish a sustainability report. This is common for Chinese local government-owned entities.

Eligible Green Projects Assessment Summary

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

Green Buildings

 Light green

Acquisition, construction, and maintenance of buildings that have received, or expect to receive, one of the selected green building certifications.

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

Putian State-Owned Assets Investment Group Co. Ltd. (Putian) is a Chinese state-owned entity incorporated in 2004. The company is based in Putian city of Fujian province. It is wholly owned by the Putian-State-owned Assets Supervision and Administration Commission.

Putian primarily engages in: 1) real estate; 2) trading (of ethylene glycol, timber, polyethylene terephthalate chips, purified terephthalic acid, among other commodities); 3) primary land development (such as urban and rural planning, development, and construction); 4) construction (such as authorized construction business, and the construction of infrastructure); and 5) other businesses (including grain sales, property management, and the outsourcing and sale of grave sites, among others).

For the nine months ended Sept. 30, 2023, the majority of Putian's revenue (Chinese renminbi [RMB] 10.4 billion) came from the trading business (96%, versus 63% for full-year 2022), with the other segments contributing less than 1% each. Putian attributed the high contribution from the trading business to a slowdown in the real estate market and reduced sales, and the rising cost of commodities. The company expects to continue to focus on real estate, land development, and urban infrastructure.

Material Sustainability Factors

Climate Transition Risks

Engineering and construction companies contribute to global climate change mainly through embedded carbon in key material such as steel and concrete, and greenhouse gases (GHG) emitted during the project-use phase. Infrastructure development also leads to significant emissions due to land-use changes and reliance on carbon-intensive material such as steel and cement. Likewise, entities could be exposed to reputational risks if they participate in carbon-intensive projects.

Incremental climate-related investments require significant capital outlays, but could reduce obsolescence risk due to changes in regulation or climate goals. In the longer term, low-carbon properties may achieve higher cost efficiencies or attract premium rents, therefore enhancing value.

Putian's businesses indirectly contribute to prolonged use of commodities that do not align with a low-carbon future. Phasing out coal could affect stakeholders by raising electricity prices (as coal is cheap and globally abundant). In addition, the coal industry is a significant economic contributor in some small localities. The push for accelerated energy transition will translate to weaker demand for coal, especially in energy-intensive segments such as steel and aluminum. China has national commitments to reach peak carbon emissions before 2030 and achieve carbon neutrality by 2060.

Physical Climate Risk

Physical climate risk is a material factor because of the potential damage to assets, and disruptions to many stakeholders and to operations. Acute physical risks--such as typhoons, storms, and floods--can impair, disrupt, or even destroy assets and affect the availability of essential infrastructure. Over time, chronic risks--increase in precipitation patterns, and rise in sea level--necessitate designing and building infrastructure that is resilient to known and projected climate hazards. Severe weather events can add risks during the construction phase. Acute and chronic risks could damage properties or place tenant health and safety at risk. They could also require investments to manage potential effects or, in severe cases, relocation of tenants.

The likelihood of damage to assets due to extreme weather increases without adaptation, more so in regions exposed to climate hazards. Unabated climate change could lead to 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 (source: Sydney-based research firm XDI, as referenced by the South China Morning Post).

Workforce health and safety

Construction sites can expose workers to heightened safety risks from use of heavy machinery, falls from height, hazardous chemicals, and other potentially dangerous situations. These could translate into fatality and injury rates that are high relative to other sectors. The reliance on temporary employees and subcontractors also poses risks because safety protocols for such employees could be lax. Larger companies are typically less affected because of more satisfactory training, policies, and standards.

China has ratified six occupational safety and health international labor conventions. The country has made progress over the last two decades, with total workplace fatalities declining by 83% between 2005 and 2021 (source: International Labor Organization's article in China Daily).

Issuer And Context Analysis

The framework's green buildings project category aims to address climate transition risk, which is a material sustainability factor for Putian. The projects aim to align with the company's vision to promote and contribute to China's 14th Five-Year Strategic Plan for environmental protection and the development of a low-carbon economy. However, this has not translated into any company-wide decarbonization targets.

Putian's commodity trading segment indirectly facilitates the exploitation and refining of raw material typically used in energy-intensive and high-emitting activities, including running of coal-fired power plants. This may contribute to perpetuating the use of fossil fuels and lead to a slower transition toward low-carbon energy sources. Although the company indicated that it will regularly assess relevant market trends and climate risks, an absence of a concrete transition plan may highlight a persistent and heightening transition risk.

Putian is yet to report thoroughly on its sustainability performance. This limits public insight on the company's agenda to address material sustainability factors and on how other activities affect sustainability performance beyond the projects included in this framework. Apart from the annual commitment to disclose the expected and actual impact of financed projects, Putian has communicated that it may publish a sustainability report and sustainability policy in the future, but without any concrete plans or timeline.

Putian's disclosures on physical risks are limited. The company relies on third-party feasibility studies and environmental impact assessments to establish systems to manage and mitigate adverse climate impacts on its operations and assets. It has limited disclosure on how it addresses physical risks in general, beyond compliance with local regulations. Putian is 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.

Putian's green finance framework is not designed to address workforce health and safety, a key sustainability issue for the company. Putian's strategy and commitments in this regard appear limited to abiding by laws and regulations. For instance, the company indicated that the evaluation and selection of eligible green buildings projects must adhere to relevant safety regulatory requirements. Putian mainly relies on feasibility studies, and environmental and social impact assessments to inform, manage, and mitigate social risks. This is a standard procedure for development projects in China.

Alignment Assessment

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

Alignment With Principles

Aligned = ✓ Conceptually aligned = ○ Not aligned = ✕

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

✓ Use of proceeds

The framework's green buildings project category is shaded in green. Putian will use the net proceeds or an amount equivalent to the proceeds exclusively to eligible green projects. Please refer to the Analysis of Eligible Projects section for more information on our analysis of the environmental benefits of the expected use of proceeds.

The maximum look-back period for refinanced projects is three years after issuance. This is in line with market practice.

✓ Process for project evaluation and selection

Putian's green financing working group comprises representatives from the finance, construction, strategic development, legal and audit, and corporate functions. The group will meet annually to evaluate and select projects according to the framework's eligibility criteria. Putian will evaluate each project it finances based on its feasibility report and environmental and social impact assessments to identify and manage environmental and social risks. Shortlisted projects will be presented to the board of directors for approval. Putian will publicly disclose in its annual report risk management policies for addressing environmental and social risks associated with projects.

The project's eligibility criteria refer to the China Green Bond Endorsed Projects Catalogue and green buildings certifications and standards. Referencing market-based standards adds transparency to project screening. The framework maintains exclusion criteria that reference the International Finance Corp.'s exclusion list.

✓ Management of proceeds

The net proceeds of each green financing transaction will be deposited in Putian's general funding account and earmarked for allocation to eligible projects within two years from the date of issuance. Putian will maintain a register to track the allocation of proceeds. The company commits to monitoring the net proceeds of all outstanding transactions, including periodically reallocating proceeds to replacement projects that comply with the eligibility criteria. Pending (re)allocation, proceeds will be held in cash deposits.

✓ Reporting

Putian commits to reporting the allocation of the net proceeds, and the expected and actual environmental impacts of the financed projects. Disclosing both the expected and actual impact of funded projects adds to the understanding of their performance. The information will be made annually available on the company website or annual report until full allocation of the net proceeds. Putian commits to referencing ICMA's Harmonized Framework for Impact Reporting (June 2022) to guide the selection of relevant impact indicators.

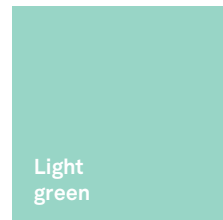
Analysis Of Eligible Projects

This section provides details of our analysis of eligible projects, based on their environmental benefits and risks, using the Shades of Green methodology.

The issuer expects to allocate the proceeds to refinance new green buildings that are under construction.

Overall Shades of Green assessment

Based on the project category shades of green detailed below, and consideration of environmental ambitions reflected in Putian's green finance framework, we assess the framework as light green.



Light green

Activities representing transition steps in the near-term that avoid emissions lock-in but do not represent long-term low-carbon climate resilient solutions.

Our [Shades of Green Analytical Approach](#) >

Green project categories

Green Buildings

Assessment

 Light green

Description

Acquisition, construction, and maintenance of buildings that have received, or expect to receive, the below recognized green building certifications:













- Chinese Green Building Evaluation Standards (GB/T 50378) – one star or above (Design/Operations)
- Building Research Establishment Environmental Assessment Method (BREEAM) – Excellent or above
- U.S. Leadership in Energy and Environmental Design (LEED) – Gold grade or above
- Hong Kong BEAM Plus – Gold or above
- Building and Construction Authority (BCA) Green Mark – Gold or above
- Construction of ultra-low energy consumption buildings: Construction of public and residential buildings adapted to climate characteristics and site-specific conditions that reduce the demand for heating, air conditioning, and lighting through passive building designs. The buildings adopt active technical measures to improve the efficiency of building energy equipment and systems. The technical indicators of the building shall meet the requirements of the “Technical Standard for Near-Zero Energy Building” (GB/T 51350)
- Green warehousing logistics: Construction, operation, and renovation of logistics warehouses in accordance with the national green building codes and standards, for which they have obtained national green building evaluation marks. For example, the technical indicators of green logistics warehouse buildings shall meet the requirements of the “Green Warehouse Requirements and Evaluation” (SB/T 11164) 1 Star or above
- Any other green building label, that is an equivalent standard of the above

A maximum three-year timeframe would be required for properties/buildings to obtain green certification. All eligible properties or buildings will have a pre-design green certification.

Analytical considerations

- Putian expects to allocate the majority of the proceeds to refinance the construction of new building projects: medical education buildings (57%), followed by industrial parks (such as manufacturing and warehouses - 21%), commercial (14%), and grain reserve (8%). The green buildings eligible for financing under the framework are intended to support climate change mitigation by alleviating GHG emissions associated with energy use. The company has communicated that it expects to deploy some renewable energy technologies (e.g. solar power and wind power) and use energy-efficiency equipment in the new buildings. However, it has not set any energy performance-improvement expectations or requirements for the eligible stock. While Putian has standard procedures to assess and manage physical climate risks, the buildings may include fossil-fuel heating, which support our light green assessment.
- Putian indicated that eligible buildings will not be utilized for industries or activities that use fossil fuel or have heavy emissions. It has also communicated that eligible warehouses will not be used for the storage of commodities (e.g. ethylene glycol, refined oil, wood, copper, and coal).
- Putian indicated that heating and cooling systems in the buildings will involve the use of electricity and some renewables (solar, wind, and hydro). However, fossil fuel-based equipment may be used in heating, depending on the availability of resources in different regions. Electricity will be sourced from the national grid, which coal still largely dominates (see "China to raise share of non-fossil fuels in total energy mix to 18.3% in 2023," S&P Global Commodity Insights, April 13, 2023). We view favorably the company's intention to explore the use of renewables and acknowledge potential jurisdictional limitations. However, the lack of a concrete plan to gradually reduce exposure to fossil fuel may introduce associated lock-in risks.
- Putian stated that most of the proceeds will refinance new buildings that are under construction, for which the raw material has considerable embodied emissions and associated climate impacts. The company mainly relies on the selected certifications to address a given building's environmental impact throughout its life cycle, such as material sourcing, energy, water, and waste management. While some green building certifications offer credit for addressing embodied emissions, their point-based systems imply that the framework's minimum certifications could be achieved without thoroughly addressing this issue. Putian has indicated that it would focus on improving energy efficiency, and sustainable material selection (e.g. cement, concrete, wood) during construction, but did not share specific plans.
- The framework's eligibility criteria do not represent a consistent level of ambition. For example, despite appearing above local regulations in the environmental requirements in order to get certified, both the Chinese Green Building Evaluation 1-star certification (the lowest ranking) and the Technical Standard for Near-Zero Energy Building (GB/T51350-2019) remain eligible criteria. The former requires only some thresholds for thermal, water, sound, and indoor air quality performance. The latter requires a minimum 50% energy saving beyond local energy standards, which appears more ambitious than the 1-star label. Yet, there is no firm commitment from the issuer to attain the more ambitious certification. Similarly, the framework considers other comparable green building standards as eligible, without specifying the certifications, criteria, or performance thresholds. These factors limit our insight into these projects' potential impact.
- Green buildings are exposed to physical climate risks, including rising sea levels, flooding, typhoons, and thunderstorms in Fujian province. The third-party feasibility study and environmental impact assessment includes these risks through project-design stage risk identification and assessment. Putian indicated the assessment results will be used to implement prevention and control measures, and enhance infrastructure during the construction stage. These measures include flood barriers, and drainage systems. The company will develop emergency procedures for the buildings' operations in response to extreme weather events, such as evacuation plans, backup generators, and communication systems. It will also install water level monitors and weather stations to establish early warning systems. The company indicated that it has not been affected by any severe climate events historically.
- All eligible buildings have to obtain a green building certification during the building pre-design stage and must be certified within three years after construction is complete. Shorter time frames reflect stronger market practices.
- The biodiversity risk appears low because the eligible projects are planned and developed as per the local government's urban infrastructure plan and development mandate, which takes place on government approved sites. According to Putian, the project sites are concentrated on Putian city's urban area. The company has carried out environmental and social impact assessments for the government's approval, prior to all project commencements. These include proposals of mitigation measures, such as biodiversity restoration, soil remediation, and water quality management.

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).

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 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 Buildings



11. Sustainable cities and communities*

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

Related Research

- [China to raise share of non-fossil fuels in total energy mix to 18.3% in 2023](#), April 13, 2023
- [Analytical Approach: Shades of Green Assessments](#), July 27, 2023
- [Analytical Approach: Second Party Opinions: Use of Proceeds](#), July 27, 2023
- [ESG Materiality Map Engineering and Construction](#), Oct. 6, 2022

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Second Party Opinion: Putian State-Owned Assets Investment Group Co. Ltd. Green Finance Framework

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