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Second Party Opinion

Zhangzhou Yuanshan Development Co. Ltd.
Sustainable Finance Framework

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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

Zhangzhou Yuanshan Development Co. Ltd. (Zhangzhou Yuanshan) seeks to contribute to Fujian Province's policies. The company's social projects support the local government's mandate to provide access to affordable housing, basic infrastructure, and employment opportunities to rural households.

Weaknesses

Net proceeds may finance facilities and equipment that involve the use of fossil fuels throughout the value chain. The company has communicated that it will explore clean energy options. Still, a lack of 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 framework does not require quantifiable improvement thresholds for all green eligible projects, such as those addressing wastewater, water quality, and land use.

Likewise, the point-based systems of green building certifications do not require minimum energy performance improvement. Relying solely on point-based systems as eligibility criteria limits insight into the invested projects' potential and actual impact. The company expects minimum energy savings for eligible certified green buildings, which partially mitigates the risk.

Zhangzhou Yuanshan's disclosures are limited. 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, Zhangzhou Yuanshan does not have an indicative allocation among the eligible categories stated in the framework.


Eligible green projects under the issuer'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


Sustainable Water Resources and Sewage Management

 **Medium to Light green**

Construction and maintenance of sewage treatment stations, supporting facilities, and sewage collection pipes

Construction and operation of sponge city for flood prevention

Pollution Prevention and Control, and Terrestrial and Aquatic Biodiversity

 **Medium green**

Water management projects (water area clean-up and pond aeration)

Environmentally Sustainable Management of Living Natural Resources and Land Use

 **Dark green**

Greening project (municipal greening, landscape protection or restoration, and tree planting)

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, Zhangzhou Yuanshan is a state-owned entity based in Zhangzhou city of Fujian province. The company is wholly owned by the Zhangzhou Gaoxin Development Co. Ltd. and controlled by the Zhangzhou High-tech Zone Administration Committee.

Zhangzhou Yuanshan primarily engages in urban infrastructure construction (such as public facilities and roads), and commercial trading of building materials, electrolytic copper, aluminum ingot, titanium ore, steel, asphalt, zirconium ore, grain, oil, among other commodities. Other businesses include property leasing and management, catering, daffodils sales, printing, and human resources management.

As of half-year ended June 30, 2024, the majority of Zhangzhou Yuanshan's gross profit of Chinese renminbi (RMB) 33.0 million (US\$ 4.6 million) came from the trading business (73%). Infrastructure construction segment accounted for 15%, and other businesses formed the remaining 12%.

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 will potentially 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. Zhangzhou Yuanshan's trading business indirectly contributes to prolonged use of commodities that involve carbon-intensive mining activities in the value chain, which could heighten the carbon lock-in risks and do 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 damage to assets and disruptions to many stakeholders' and own operations. Zhangzhou Yuanshan 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. Their impacts 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 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 a RCP 8.5 scenario, Fujian Province in China is ranked 34th globally to have the highest aggregated damage risk in 2050 (source: 2024 XDI Gross Domestic Climate Risk Report).

Biodiversity, resource use, and pollution

Key challenges with construction activities include extensive usage of natural resources, and pollution to air, land, and water in the form of emissions, disposal, or potential leakages. Resource-intensive materials and practices pose risks to finite resources. Additionally, water scarcity concerns may arise from construction-related water usage. High quantities of untreated wastewater are released into the environment globally; contamination and pollution of water bodies is a material stakeholder concern for water utilities. They also manage toxic pollution from agricultural runoff and industrial discharge in water basins. Contaminated water and poor sanitation systems in turn contribute to long-term health conditions, and these customer health and safety events can, when severe, undermine public trust. Under applicable environmental laws and regulations, entities could be liable if their operations cause environmental damage, in particular air, drinking water, or soil contamination. By 2025, China targets to achieve >95% sewage treatment rate, >25% utilization rate of sewage resources in water-deficient cities at the prefecture level, and to reach 90% harmless disposal rate of urban sludge (source: China State Council). China's Biodiversity Conservation Strategy and Action Plan (2023-2030) aims to improve biodiversity conservation. The main focus is on addressing biodiversity losses and sustainable use of biodiversity, along with benefit sharing through 27 priority action plans and target to protect and restore 30% of degraded ecosystems on land, inland waters, coasts and ocean 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, which may 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, thereby connecting rural communities to job opportunities, essential services, and markets. As a result, these initiatives help reduce transportation costs and contribute to the overall well-being and economic growth of rural areas. However, it 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). Land acquisition in Fujian Province, China, follows the national laws and regulations, including the Land Administration Law and the Guiding Opinions on Improving the System of Compensation for Requisition of Land. Section 26 of Land Administration Law of the People's Republic of China mandates collective land management units to compensate peasants for requisitioned land, with 70% of compensation for contracts or personal needs, determined through consultation with the peasants.

Issuer And Context Analysis

The framework's eligible green projects aim to address climate transition, mitigate pollution, and preserve natural resources, while social projects endeavor to provide access to affordable houses and infrastructure. These are all material sustainability factors for Zhangzhou Yuanshan. Nevertheless, eligible projects could potentially introduce additional considerations such as physical climate risk, biodiversity risks, and impact to 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 Zhangzhou city, the company does not have specific sustainability targets. Zhangzhou Yuanshan mainly manages climate considerations through energy efficiency measures for projects such as green buildings, adaptations for flood resiliency, and small-scale carbon sequestration green landscape projects. However, this has not translated into any company-wide decarbonization target. Similarly, it does not maintain any social targets despite poverty alleviation being one of its sustainability core areas. Moreover, the company's trading segment indirectly facilitates the exploitation and refining of raw materials typically used in energy-intensive and high-emitting activities, such as the running of fossil fuel-fired power plants. This may contribute to perpetuating the use of fossil fuels and lead to a slower transition toward low-carbon energy sources. An absence of a concrete transition plan may highlight a persistent and heightening transition risk.

Zhangzhou Yuanshan 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 drought, windstorm, and floods. While the company's water management project aims to enhance drainage and resiliency to heavy rainfalls, other projects could have exposures to physical risks. Zhangzhou Yuanshan mainly relies on project-level environmental impact assessment and feasibility studies during the project design stage, a standard procedure in China to establish systems to manage and mitigate adverse climate impacts on its operations and assets. Nevertheless, it 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.

Zhangzhou Yuanshan's construction activities could introduce biodiversity issues. The company's control in this area remains largely limited to project-level compliance-based feasibility studies. For instance, government approval and public consultations will be required for constructions on greenfield areas, as well as mitigation measures. Its greening and landscape restoration projects could also partially mitigate biodiversity impacts.

Although large infrastructure projects could potentially cause disruptions to nearby communities, eligible social projects play a vital role in eradicating poverty in rural parts of Zhangzhou city. While infrastructure development projects could displace, and require the resettlement of, some rural households, Zhangzhou Yuanshan will provide resettlement houses to those impacted. Similarly, the construction of free roads will improve the connectivity and living standards of rural villagers. The company requires environmental and social impact assessment during the project design stage. It systematically appoints a local government agency to communicate the process and compensation details during the project consultation stage with the local communities.

Zhangzhou Yuanshan 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. The company communicated that it will commit to annually disclosing the expected and actual impact of financed projects in a sustainability report moving forward. There are no concrete plans or timeline 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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- ✓ Social Bond Principles, ICMA, 2023
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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. The issuer commits to allocate the net proceeds issued under 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

Zhangzhou Yuanshan's sustainable project working group (SPWG) comprises representatives from finance, operations, risk management, project management, and integrated management functions. The SPWG will meet at least 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 maintains exclusion criteria that reference the International Finance Corporation's exclusion list, covering topics such as weapons and munitions, alcoholic beverages, tobacco, and gambling.

✓ Management of proceeds

The net proceeds will be deposited in Zhangzhou Yuanshan's funding accounts and managed by the company's finance team. Zhangzhou Yuanshan 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

Zhangzhou Yuanshan 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 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. The company will report both the expected and actual environmental and social impacts of financed projects, as well as the calculation methodologies, subject to data availability. Examples of impact indicators include the number of green buildings constructed, percentage of energy reduction, annual area of landscape protection, and the beneficiary target population size from affordable housing projects, among others.

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 recognized green building certifications:

- Design standard for green buildings in Fujian – 2 star or above
- Chinese Green Building Evaluation Standards – 2 star or above
- Other similar recognized standards

The location of the project 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 enhance the water permeability of the ground and 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.
- Zhangzhou Yuanshan expects to allocate most proceeds to finance the construction of new buildings (70%), with the remaining allocated to energy efficiency measures of existing buildings (20%) and renovation projects (10%). Buildings could be residential, commercial, and industrial. Industrial buildings will only include sewage treatment stations (see Sustainable Water Resources and Sewage Management section). Industrial buildings directly involved in fossil fuel activities, or any building supporting the fossil fuel value chain will not receive funding.
- Construction and renovations involve embodied emissions and associated climate impacts. Zhangzhou Yuanshan mainly relies on the selected certifications to address a given building's environmental impact throughout its life cycle. It has included some examples of measures in the framework, such as material sourcing, energy, and water management. While Zhangzhou Yuanshan expects eligible certified new buildings to have 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 or thresholds. This implies that certified buildings do not necessarily guarantee lower climate impact. We therefore assess this category as Light green.

- Zhangzhou Yuanshan stated that it plans to implement energy efficiency measures, such as energy efficient air conditioning systems, LEDs (light-emitting diode), and will explore the use of renewable energy sources (e.g. solar) in renovation projects, as well as operations of certified existing buildings. It expects these measures to lead to at least 15% energy efficiency improvement. Similarly for new constructions, Zhangzhou Yuanshan has not identified any opportunities to conduct life cycle emissions assessment, or to inform any emissions reduction thresholds. That limits our assessment to Light green.
- The points-based systems of buildings certifications do not necessarily require minimum performance improvement. Required certification levels could be achieved without addressing specific environmental issues thoroughly. The company 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 our insight into the projects' potential environmental impacts.
- Zhangzhou Yuanshan confirmed that eligible buildings will not have fossil fuel-based equipment. Heating, cooling, and lighting of the buildings will rely mostly on electricity sourced from the national grid, for which coal still largely dominates in power generation. In terms of energy management in commercial buildings (i.e. offices), the company will explore the use of renewable energy sources (e.g. solar).
- Green buildings are exposed to physical climate risks, including flooding, and extreme rainstorms, and rising temperatures. Zhangzhou Yuanshan mainly addresses the risks through implementing measures recommended by the third-party feasibility studies during the project design stage, as required by relevant laws and regulations.
- Zhangzhou Yuanshan has included procedures to manage the risks on biodiversity and land use change. For instance, all eligible projects will require approval by the planning department authority in compliance with national laws and regulations. According to the company, constructions will mainly involve brownfield sites. If greenfield sites are involved, it will implement related mitigation measures in accordance with the findings from the feasibility study and ESIA, conducted by third-party consultants.

Sustainable Water Resources and Sewage Management

Assessment

 **Medium to Light green**

Description

Construction and maintenance of sewage treatment stations, supporting facilities, and sewage collection pipes that will meet the relevant national discharge standards, such as:

- Pollutant Discharge Standards for Urban Sewage Treatment Plants (GB18918-2002)

Construction and operation of sponge city for flood prevention--buildings and communities, roads and squares, and parks and greenspace. The design and construction will adhere to relevant national discharge standards, such as:

- Design Guidelines for the Control and Utilization of Rainwater in Civil Buildings
- Technical Guidelines for Sponge City Construction--Low Impact Development of Rainwater System Construction (Trial)

Analytical considerations

- Wastewater treatment in underdeveloped areas that currently release household sewage into the environment help avoid pollution. Untreated sewage contributes to excessive nutrients in water streams, which, in turn, can result in the loss of biodiversity and have detrimental effects on the ecosystem. Through expanding the sewage pipe network coverage in rural villages, and constructing two sewage treatment facilities, the company aims to improve the water quality and the livelihood of rural villagers in Zhangzhou city. This also supports the Fujian Provincial Government's goal to achieve 65% rural domestic sewage treatment rate by 2025 in the region, as outlined in the Five-Year Action Plan for Improving Rural Domestic Sewage Treatment in Fujian Province (2021-2025).
- Zhangzhou Yuanshan expects the two sewage treatment facilities to have a total treatment capacity of 230 cubic meters (m³) per day, and the connection pipe will span 522.5 kilometers across the rural households. It will install an Internet of Things (IoT) system to monitor the facilities performance, such as quality and volume of treated water, and energy usage. While it is positive that the projects will have environmental and social co-benefits and will not treat wastewaters from fossil fuels operations, equipment necessary to the eligible projects will largely run on fossil fuels, which could be energy intensive. The

company stated it will explore clean energy sources, subject to market availability. It also has no concrete plan. Likewise, while the company stated some energy efficiency measures (see Green Buildings), there is no specific quantifiable threshold on the eligible sewage treatment station’s energy performance and carbon footprint. Therefore, we assess this project category as Light green.

- Improving water efficiency with the introduction of climate change adaptation and stormwater management features can enhance resilience in the context of growing physical climate risks facing the Fujian Province, such as flooding, extreme rainstorms, and rising sea levels. Through investment in the sponge city concept (rainwater harvesting and management system), the company aims to improve the inflow and infiltration drainage system of Zhangzhou city. Eligible projects include building structures, such as ecological grass ditches that infiltrate and drain excess rainwater in low-lying areas, use of permeable pavement materials to replace traditional concrete and cement to increase infiltration capacity of roads, as well as rainwater collection pools to capture and store the remaining excess rainwater.
- The company expects the sponge city project will meet an annual rainwater runoff control rate of 75% (in the context of rainfall up to 21.3mm). It is positive that the project design will incorporate green infrastructure with co-benefits to address drainage and flooding issues. Zhangzhou Yuanshan also stated that some excess rainwater can be used for landscape irrigation, although it has not specified an estimated volume. Similarly, fossil fuel equipment necessary to the eligible projects could be involved. The company also does not consider any other specific thresholds as an eligibility criterion. Nevertheless, we consider the climate resiliency and green infrastructure co-benefits of this project category and assess Medium green.
- Zhangzhou Yuanshan stated that it will evaluate the vulnerability of assets and projects to climate weather events and establish necessary contingency plans in a feasibility study, as part of the ESIA process. These appear largely limited to compliance with relevant laws and regulations.

Pollution Prevention and Control, and Terrestrial and Aquatic Biodiversity

Assessment

Description

 **Medium green**

Water management project, treatment measures include:

- Clean up the silt and floating rubbish in relevant water areas
- Artificial oxygenation of ponds through aeration

Analytical considerations

- Water quality management and pollution alleviation may benefit fresh or saltwater sources, which can have biodiversity and ecosystem benefits and environmental significance from a pollution prevention and control perspective. This is crucial for Zhangzhou city’s rural areas, where the rivers often have floating rubbish and grass residues on the surface. The company’s river clean-up and pond artificial oxygenation projects aim to improve the water quality and aquatic ecosystems, supporting the Fujian Province Watershed Water Environment Protection Regulations.
- While both river clean-up and pond artificial oxygenation projects contribute to ecological protection, eligible projects--without any specific thresholds related to embodied or operational emissions--may not represent low-carbon solutions. Similarly, although the process of providing oxygen to a water body using submersible aeration will be powered by electricity, river clean-up projects may use vessels or equipment running on fossil fuels. The company stated it will explore clean energy sources when the market availability allows, but it did not have any specific types, nor a concrete plan. We assess a Medium green shade to reflect the uncertain climate impacts associated with the eligible projects.
- River clean-up could involve the process of hydraulic excavation and riverbed dredging, which might spread contaminated sediments and pollutants (e.g. heavy metals) into the water. Such activities should involve thorough planning and monitoring to mitigate associated adverse impact on water quality and aquatic marine habitats.
- The company’s management in relation to physical climate risks, such as feasibility studies in the ESIA processes, does not seem to extend beyond compliance with existing regulations, similar to other project categories stated above.

Environmentally Sustainable Management of Living Natural Resources and Land Use

Assessment

 **Dark green**

Description







Invest in land greening and landscape protection or restoration of natural landscapes, including:

- Municipal greening, such as tree planting
- Upgrading the greening and landscaping of the "four sides" (i.e. roadside, waterside, house side, village side) and public activity areas
- Greenway construction, widening, and maintenance

Analytical considerations

- Greening, plantation, and landscape restoration projects support climate resilience. These projects can have benefits for carbon sequestration and climate change adaptation in urban spaces, such as enhancing resiliency against soil erosion and storm surge protection. They could also contribute to biodiversity conservation, natural ecosystems, and habitats, given that planning and implementation of land use management practices have been considered.
- Eligible projects will mainly include the greening of urban sideways, such as along the roads, rivers, houses, and villages, which should constitute limited scale and negligible climate effect. It is positive that Zhangzhou Yuanshan will only introduce native species through local sourcing, which contains greater biodiversity benefits. That supports the assessment of Dark green.
- Construction activities may involve the use of fossil fuel equipment or trucks. The company stated that it will conduct regular monitoring and maintenance as a control mechanism and will explore cleaner energy sources, if available.
- Prior to financing the restoration projects, the company will engage third-party consultants and professional landscapers to conduct a feasibility study to evaluate the biodiversity benefits, as well as the vulnerability of projects to climate events.

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.

Resettlement housing at an affordable price for the rural population who have lost their homes due to demolition.

Target group: People with lower level of wealth and income.

Analytical considerations

- The construction, maintenance, and upgrade of affordable and resettlement housing help improve living conditions for low-income households. They align with the housing-security initiative under Zhangzhou's housing policy announced in March 2024. The housing policy includes the initiative to coordinate housing resettlement for those affected by the urbanization of rural areas of the city.
- Zhangzhou Yuanshan shared that the price and financing terms of housing units (both for rent and for sale) 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, the issuer said the price of the resettlement units will be about 50% below their market valuation. Similarly, rents are expected to be below market rates; the extent is yet to be seen.
- The target population, those with lower level of wealth and income, is defined as the rural constituents that have lost their homes due to demolition. According to Zhangzhou Yuanshan, the per capita annual income level of Zhangzhou citizens was RMB38,727 in 2023 while that of the rural area was RMB27,778.
- The development of affordable properties or resettlement housing may involve the relocation of existing residents. Zhangzhou Yuanshan 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 require 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. 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.

Building new supporting infrastructure (such as roads and pipes) for the residents in backward/rural areas and remote villages, renovate the appearance of old villages, and build industrial-supporting service measures.

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

Analytical considerations

- Affordable basic infrastructure includes the construction of roads to improve connectivity in underdeveloped rural areas, or where a road network is absent. It will also include water and sewage pipes in remote areas that currently lack such infrastructure.
- The project aims to improve the quality of life of rural households or farmers living in remote areas of Zhangzhou 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. Zhangzhou Yuanshan confirmed access to such

infrastructures will be free, maximizing their impact. On the downside, rapid motorization and road expansion in the country will continue to exacerbate road safety problems and an increase in vehicle emissions.

- 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 adjacent economic activities.
- Although infrastructural projects may involve clearing and relocation of affected residents, Zhangzhou Yuanshan will follow closely the public consultation procedures, as required by the ESIA. It will also ensure that these residents will be compensated based on terms defined by local government regulations.
- The construction of infrastructure might 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 housing units, the feasibility studies and ESIA should include measures to address potential environmental negative impacts.

Employment generation

Construction of industrial parks

Target group: Poor rural households and farmers in the surrounding areas of the project area.

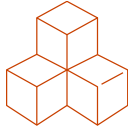





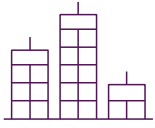
Analytical considerations

- The construction of industrial parks (e.g., Lychee Park) aims to provide employment opportunities with a focus on rural households and farmers residing near the project area. However, the framework does not specify any training strategy, given the target group may not have the desirable skills to fulfill the jobs created.
- The target population is defined as the rural households or farmers. According to the company, the per capita annual income level of Zhangzhou citizens was RMB38,727 in 2023 while that of the rural population of the city was RMB27,778.
- The nature of the eligible project (growing lychees in the designated industry park) requires farming techniques and local expertise. Zhangzhou Yuanshan expects Lychee Park to also promote eco-tourism opportunities, increase demand for labor, and strengthen rural household and farmers' incomes.
- Any new development could be resource and energy intensive. 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 negative impacts on the environment.

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 |  <p data-bbox="464 751 634 835">9. Industry, innovation and infrastructure</p> |  <p data-bbox="683 751 850 835">11. Sustainable cities and communities*</p> |
| Sustainable Water Resources and Sewage Management |  <p data-bbox="464 1073 634 1125">6. Clean water and sanitation*</p> |  <p data-bbox="670 1073 865 1157">12. Responsible consumption and production*</p> |
| Pollution Prevention and Control, and Terrestrial and Aquatic Biodiversity |  <p data-bbox="464 1388 634 1440">3. Good health and well-being*</p> |  <p data-bbox="683 1388 850 1440">6. Clean water and sanitation</p> |
| Environmentally Sustainable Management of Living Natural Resources and Land Use |  <p data-bbox="464 1682 634 1766">11. Sustainable cities and communities*</p> | |

Affordable Housing

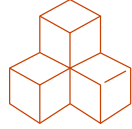


1. No poverty*



11. Sustainable cities and communities*

Affordable Basic Infrastructure



9. Industry, innovation and infrastructure*

Employment generation



8. Decent work and economic growth*

*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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