

# **‘Second Opinion’ on ADBC’s Green and Sustainability Bond Framework**

---

November 14<sup>th</sup>, 2018

# Summary

ADBC may issue green and sustainability bonds under this “ADBC Green and Sustainability Bond Framework” (“the Framework”). The joint governance described in the Framework, including selection, management of proceeds and reporting, is summarized first, followed by a summary of projects to be financed by green and sustainability bonds.

## Governance

ADBC is a policy bank and its operations are closely linked to Chinese national strategies and policies. The Chinese government has a goal to eliminate poverty at the regional level by 2020 and ADBC plays a leading role in poverty alleviation through policy-oriented financing. ADBC works to contribute to achieve the quantitative targets for environmental protection and poverty alleviation set by the Chinese government. The Green and Sustainability Bond Framework supports the overall corporate strategy to implement government policies.

ENSO is encouraged by the issuer’s ESG risk procedure. ADBC has implemented a Green Credit Policy that includes an environmental and social risk review at the project level, through a categorization of projects according to risk level and a review of the customer’s own environmental and social risk management ability. Projects categorized as “high risk” will not be funded by green or sustainability bonds. ADBC as a policy bank will require compliance with Chinese regulations from funded projects. This is an additional assurance that many social and environmental issues will be addressed on a project-level. However, it needs to be noted that Chinese regulations also present ADBC’s benchmark in this space and potential gaps might pose a risk that certain issues are not addressed according to international social and environmental standards.

ADBC also has an exclusion list which safeguards against the funding of many projects likely to cause large environmental damage and/or projects with high social risks. For example, it is a strength that ADBC has explicitly excluded fossil fuels, including clean coal, from funding under the framework. Several of the project categories in the framework include a broad range of projects, which makes the selection process even more important. ADBC has a responsibility to ensure a rigorous environmental and social assessment that supports the sustainability ambitions of the framework.

The Framework includes ambitious impact reporting for some categories and a high level of transparency. The issuer has informed us that they view the impact indicators in the framework as a starting point for further work and has further informed us that their ambition is for green projects under this framework to report on social indicators as well as for social projects to report on green indicators, given data availability. ENSO views this as a strength and strongly encourages the issuer to include green and social indicators for all project categories to fully report on the sustainability impacts of projects. Given the broad framework, ENSO has some concerns that impacts will not be reported for all projects, and that not all projects will be listed in the report. However, the issuer has explained that there will be a third-party review of impact reporting, which is a step towards addressing our concern. ENSO understands that impact reporting is a work in progress and encourages the issuer to work to continuously improve transparency towards investors.

### Projects to be funded by green bonds

Green bonds will fund eligible green asset categories as described in table 2: sustainable water and wastewater management, renewable energy and environmentally sustainable management of living natural resources and land-use. Green projects must also meet the eligibility criteria in the 2015 China Green Bond Endorsed Project Catalogue.

The Framework includes project categories that are key to the transition to a low carbon, climate resilient future, for example, the production and transmission of renewable energy. Sustainable water projects that can be funded under the framework include projects that are important to enhance resilience to the impacts of climate change, as well as projects that are important for the local environment and reduce pollutants. Projects in both these categories can raise potential concerns regarding site selection, supply chain emissions and local environmental impact during the construction phase and operations. We encourage the issuer to stringently follow up the implementation of the environmental risk screening to ensure that the dark green ambitions of the categories are maintained.

The green asset category environmentally sustainable management of living natural resources and land-use allows for the funding of agricultural projects in all shades of green. Sustainable agriculture projects with the aim to improve land fertility, reduce fertilizer use, improve water efficiency and resilience are important for sustainable development. Although ADBC lacks targets or minimum criteria, the issuer has informed us that their ambition is to set individual environmental targets for all projects, but that in some cases it might not be feasible because of data access or confidentiality.

ENSO finds the Framework to be aligned with the Green Bond Principles. Based on the project category shadings detailed below, and consideration of the governance structure of the ADBC in terms of management, use of proceeds and transparency, we rate the ***ADBC Green Bond Framework as Dark Green***. The Framework allows for projects in all shades of green, underscoring the responsibility of the issuer in careful project selection.



°CICERO  
Dark Green

**Projects to be funded by sustainability bonds**

In addition to the green projects listed in table 2, sustainability bond proceeds can fund social projects as listed in table 3. The Framework includes social project categories that support the implementation of key social development targets defined by the issuer: poverty elimination and urban-rural integrated development. The eligible social asset categories of the Sustainability Bond Framework explicitly target people living in poverty or under impoverished conditions. The provision of affordable housing and affordable basic infrastructure as well as essential services, including medical and educational services, to target populations are key for improving their living conditions, empowering them and lifting them out of poverty. The two eligible social asset categories also show a strong alignment with several Sustainable Development Goals, including SDG 1, SDG 3, SDG 4, SDG 6, SDG 7, SDG 8 and SDG 11. This alignment highlights the value of the social asset categories for implementing sustainable development targets and poverty alleviation in China. Despite ADBC’s due diligence process for social risks, some concerns remain with respect to how special needs and certain rights of minorities and vulnerable populations groups are addressed throughout the lifecycle of eligible projects.

ADBC could more strongly address trade-offs and interlinkages between eligible green and eligible social asset categories. The projects listed in table 3 are not required to follow the criteria in the China Green Bond catalogue, despite several projects being infrastructure listed in the catalogue (for example, renewable energy and housing). While there are some environmental screens, there is still the risk of locking in inefficient infrastructure. The issuer has informed us that they are aware of possible trade-offs between environmental and social targets and has taken steps to mitigate these, for example, by screening all projects for both environmental and social risks. ENSO encourages the issuer to continue with this integration process to minimize trade-offs, to safeguard the funding of projects that contribute towards sustainable development, and to encourage project owners to adopt the same integrated sustainability ambitions. Climate science underscores the need for all housing and infrastructure investments to be green.

ADBC’s Sustainability Bond Framework is aligned with the ICMA Sustainability Bond Guidelines, the Green Bond Principles and the Social Bond Principles. The ADBC framework provides a robust structure for sustainable investment. Based on the environmental and climate credentials of all project categories, and consideration of ADBC’s governance structure in terms of management, use of proceeds and reporting, we rate **ADBC’s Sustainability Bond framework Medium Green**. This sustainability bond framework includes a broad range of project categories that generally support sustainable development. Both eligible social asset categories, affordable housing and affordable basic infrastructure and services, are light green categories. The Medium Green shading assumes a balanced allocation of proceeds across green and social projects raised from sustainability bond issuances. This has been indicated by the issuer.



# Contents

---

<b>Summary</b>	<b>2</b>
Governance	2
Projects to be funded by green bonds	3
Projects to be funded by sustainability bonds	4
<b>1 Introduction and background</b>	<b>6</b>
Expressing environmental concerns with ‘shades of green’	7
Overall shading	7
Assessment of social benefits and risks	7
<b>2 Brief Description of ADBC’s Green and Sustainability Bond Framework and rules and procedures for climate-related activities</b>	<b>9</b>
Policies	9
Use of proceeds	10
Selection	10
Management of proceeds	11
Transparency and Accountability	12
<b>3 Assessment of ADBC’s Green and Sustainability Bond framework and environmental and social policies</b>	<b>15</b>
Overall shading	15
Eligible projects under the Green and Sustainability Bond Framework	15
Strengths	21
<i>Governance</i>	21
<i>Project categories</i>	22
Weaknesses	23
Pitfalls	23
<i>Governance</i>	23
<i>Project categories</i>	24
<b>Appendix A: Eligible Social Asset Categories and SDGs</b>	<b>26</b>
<b>Appendix B: About CICERO</b>	<b>30</b>
<b>Appendix C: About IISD</b>	<b>31</b>

---

# 1 Introduction and background

As an independent, not-for-profit, research institute, CICERO (Center for International Climate and Environmental Research - Oslo) provides Second Opinions on institutions' framework and guidance for assessing and selecting eligible projects for sustainability bond investments, and assesses the framework's robustness in meeting the institutions' environmental and social objectives. The Second Opinion is based on documentation provided by the institutions themselves (the client) and information gathered during meetings, teleconferences and e-mail correspondence with the client.

CICERO is independent of the entity issuing the bond, its directors, senior management and advisers, and is remunerated in a way that prevents any conflicts of interests arising as a result of the fee structure. CICERO has established the global Expert Network on Second Opinions (ENSO), a network of independent non-profit research institutions on climate change and other environmental, social and governance issues, to broaden the technical expertise and regional experience for Second Opinions. ENSO works confidentially with other members in the network to enhance the links to climate, environmental and social science in the field of sustainability, building upon the CICERO model for Second Opinions. In addition to CICERO, ENSO members currently include Basque Center for Climate Change (BC3), International Institute for Sustainable Development (IISD), Stockholm Environment Institute (SEI), and Tsinghua University's Institute of Energy, Environment and Economy.

When conducting Second Opinions for Sustainability Bond frameworks, IISD provides additional expertise on social impacts and social risks to be considered for the financing of infrastructure and other projects with environmental and social targets. Sustainable projects mean that the projects need to have either a green and/or a social objective, and none of the project categories could have serious green or social concerns. A more detailed description of CICERO and IISD can be found at the end of this report. ENSO encourages the client to make this Second Opinion publicly available.

If any part of the Second Opinion is quoted, the full report must be made available. ENSO's Second Opinions are normally restricted to an evaluation of the mechanisms or framework for selecting eligible projects at a general level. ENSO does not validate or certify the climate effects of single projects, and thus, has no conflict of interest in regard to single projects. ENSO is neither responsible for how the framework or mechanisms are implemented and followed up by the institutions, nor the outcome of investments in eligible projects.

This note provides a Second Opinion of ADBC's Green and Sustainability Bond Framework and policies for considering the environmental and social impacts of their projects. This Second Opinion is based on the Green and Sustainability Bond Framework presented to ENSO by the issuer. Any amendments or updates to the framework require that ENSO undertake a new assessment. Proceeds from green or sustainability bonds may be used for financing, including refinancing, new or existing eligible projects as defined under the mechanisms or framework. ENSO assesses in this Second Opinion the likeliness that the issuer's categories of projects will meet expectations for a sustainable future.

### **Expressing environmental concerns with ‘shades of green’**

CICERO takes a long-term view on activities that support a low-carbon, climate resilient and sustainable society. In some cases, activities or technologies that reduce near-term emissions result in net emissions or prolonged use of high-emitting infrastructure in the long-run. CICERO strives to avoid locking-in of emissions through careful infrastructure investments, and moving towards low- or zero-emitting infrastructure in the long run.

Project categories are graded dark green, medium green or light green, reflecting the climate and environmental ambitions of the bonds and the robustness of the governance structure of the Sustainability Bond Framework. The grading is based on a broad qualitative assessment of each project type, according to what extent it contributes to building a low-carbon and climate resilient society. The shading methodology also aims at providing transparency to investors when comparing green bond frameworks exposure to climate risks. A dark green project is less exposed to climate risks than a lighter green investment. Project categories with social targets can be neutral signifying that these projects most likely will have an insignificant environmental impact.

This Second Opinion will allocate a ‘shade of green’ to the sustainability bond framework of ADBC:

- Dark green for projects and solutions that are realizations today of the long-term vision of a low carbon and climate resilient future. Typically, this will entail zero emission solutions and governance structures that integrate environmental concerns into all activities.
- Medium green for projects and solutions that represent steps towards the long-term vision, but are not quite there yet.
- Light green for projects and solutions that are environmentally friendly but do not by themselves represent or is part of the long-term vision (e.g. energy efficiency in fossil-based processes).
- Brown for projects that are irrelevant or in opposition to the long-term vision of a low carbon and climate resilient future.

### **Overall shading**

The project types that will be financed by the sustainability bond primarily define the overall shading. However, governance and transparency considerations are also important because they give an indication whether the institution that issues the sustainability bond will be able to fulfil the climate and environmental ambitions of the investment framework. Investments in all shades of green projects are necessary in order to successfully implement the ambition of the Paris agreement. The overall shading reflects an ambition of having the majority of the project types well represented in the future portfolio, unless otherwise expressed by the issuer.

### **Assessment of social benefits and risks**

The Second Opinion for ADBC’s Sustainability Bond framework also accounts for social dimensions of the framework in total and of eligible social asset categories in particular. IISD provides expertise on social benefits and social risks to be considered for the financing of infrastructure and other projects with environmental and social targets.

The social benefits, consistency and effectiveness of eligible social asset categories of this framework are reviewed against the issuer’s overall social targets and the United Nations Sustainable Development Goals (SDGs). SDGs highlighted by the issuer are assessed by clarifying which specific SDG targets are supported by each eligible social asset category. Moreover, the assessment points to relevant SDGs and targets that have not been identified by the issuer. This reference framework for analyzing the benefits of social asset categories was chosen because SDGs are increasingly accepted and applied within the (impact) investment community, the International Capital Market Association (ICMA) encourages to pay attention to the SDGs as they recently

published a high-level mapping on the alignment between the SDGs and green/social asset categories of Green/Social/Sustainability Bond Frameworks, and many countries (including China) are working actively on implementing the SDGs.

Social risks of eligible green and social asset categories are assessed based on IISD's extensive experience from infrastructure sustainability assessments as well as best practice guidelines and safeguards (such as the Environmental and Social Performance Standards of the International Finance Corporation). The assessment covers the bond issuer's capacity for anticipating and assessing adverse social risks when selecting eligible green and social projects. It is also reviewed whether the issuer has implemented policies that require project beneficiaries to have systems in place to avoid, reduce or minimize adverse social impacts.

## 2 Brief Description of ADBC’s Green and Sustainability Bond Framework and rules and procedures for climate-related activities

The Agricultural Development Bank of China (“ADBC”) is an agricultural policy bank under the authority of the Chinese State Council. ADBC supports agricultural development through national credit support and the leveraging of capital markets. Per year end 2017, ADBC has 31 provincial-level branches, 339 second-tier branches and 1,816 county-level operating entities with more than 50,000 employees. The bank’s total assets reached RMB 6.22 trillion.

### Policies

The bank’s operations are closely linked to national strategies, and ADBC aims to become an agricultural policy bank with sustainable development capabilities. The Chinese government has a goal to eliminate poverty at the regional level by 2020 and ADBC plays a leading role in poverty alleviation through policy-oriented financing.

ADBC has defined “five areas of dedicated service”. Several of the eligible asset categories listed in table 2 and table 3 also reflect these:

- Food security
- Poverty elimination, including allocation of loans to anti-poverty relocation, solar PV, tourism, medical, ecological conservation, education
- Modernization of agriculture
- Urban-rural integrated development, including the improvement of rural infrastructure
- National key strategies

As a policy bank under the authority of the Chinese State Council, ADBC follows and applies national regulations and standards on social and environmental subjects that are required by law for a multitude of sectors. This implies that ADBC requires beneficiaries to comply with general as well as sector-specific social (e.g., labor, health and safety standards<sup>1</sup>) and environmental (e.g., pollutant emission standards) regulations to be eligible for receiving proceeds from a sustainability bond or a green bond.<sup>2</sup> China has established management procedures for environmental and social risk management at project level. As per Chinese regulation, different

---

<sup>1</sup> China has ratified the following relevant international conventions :ILO Convention 138 on Minimum Age (of Employment), ILO Convention 182 on the Worst Forms of Child Labor, ILO Convention 100 on Equal Remuneration, ILO Convention 111 on Discrimination (Employment and Occupation), UN Convention on the Rights of the Child, Article 32.1

<sup>2</sup> Note that China is not on the Equator Principles list of Designated Countries. Designated Countries are those countries deemed to have robust environmental and social governance, legislation systems and institutional capacity designed to protect their people and the natural environment. Full list: <http://equator-principles.com/designated-countries/>

levels of environmental assessment and social stability risk assessments are required for projects depending on their risk classification.

ADBC's compliance process verifies if eligible projects comply with regulatory procedures and ensures that projects have obtained all required regulatory compliance documents. The environmental and social risks of projects are also evaluated and managed through the risk management mechanism of the issuer. ADBC has implemented a Green Credit Policy to screen all projects for environmental and social risks<sup>3</sup>. As per ADBC's Green Credit Guidelines all projects are subject to an environmental assessment and a social stability risk assessment. According to the policy, the assessment is carried out in two stages. During the investigation stage, environmental and social risks are identified and assessed by third party consultants. Projects are categorized according to their risk level based on historical records of environmental behavior and permits from the governmental authorities. The project sector is also categorized from A-C according to environmental and social risk. After the initial investigation, a review is conducted by the Credit Approval Department and a final investment recommendation is issued. ADBC also conducts monitoring during project implementation.

### **Use of proceeds**

Proceeds from ADBC's sustainability bonds will finance or refinance a broad range of environmental and social projects in China, see table 2 and table 3.

ADBC may also issue green bonds under the framework, which will fund eligible green asset categories as described in table 2. Green projects must also meet the eligibility criteria in the 2015 China Green Bond Endorsed Project Catalogue. ADBC will not issue Social Bonds under this framework.

The issuer has explicitly excluded the following activities:

- Fossil fuel related assets (including clean coal) ;
- Infrastructures being carbon intensive such as new roads, airports, etc;
- Nuclear fuel or other nuclear related assets;
- Sectors which are prohibited by laws and regulation in China, such as weapon, child labour, adult entertainment and corporations which are in association with illegal activities;
- Luxury sector such as precious metals, artwork, antiques and golf clubs;
- Distilling, rectifying and blending of spirits;
- Manufacture of tobacco products;
- Mining and quarrying;
- Manufacture of weapons and ammunition;
- Manufacture of military fighting vehicles;
- Gambling and betting activities;
- Production, distribution or storage of hazardous chemicals and radioactive materials.

### **Selection**

ADBC has a two-step selection process. Potential green and social assets are first identified and pre-selected by the frontline credit departments of branches. The initial eligible asset list will be sent to the ADBC head office, which will select the final list of eligible assets based on the following criteria:

---

<sup>3</sup> For a discussion of the Green Credit Policy specifically applied to projects funded under the framework, see section on selection

- If a project is compatible with at least one Eligible Green and/or Social Asset Category in this Framework;
- If a project can produce clear and quantitative environmental and/or social impacts;
- For social projects, if the project will provide clear benefits to target populations.

ADBC will engage an external consultant with sustainability expertise to assist with the selection process. The consultant will assess the qualitative and quantitative environmental and social benefits of projects. The consultant has the option to veto projects from being financed under this framework, based on their professional opinion.

The Green Credit Policy will also apply to all projects funded under this Framework. The policy requires that all projects are categorized according to their risk level. The risk category is determined based on the customer's or project's environmental and social track-record. ADBC has established an environmental and social data collection mechanism, and requires front-line departments to obtain environmental and social risk related information of clients through energy-saving and emission reduction authorities, industry associations, credit reporting agencies, regulatory authorities and media. Social elements that ADBC takes into consideration during the loan disbursement process, irrespective of the project's risk category, include: health effects to local residents and work staff, occupational safety, effects to indigenous communities, respect to culture and customs of ethnic minorities, and cultural heritage protection.

As a policy bank, ADBC is positioned to focus on the development of vulnerable groups and respects the cultures, customs and interests of minority groups. The bank sets a priority on social risk assessment as part of the due diligence process prior to and post loan disbursement. The due diligence report includes an analysis of adverse impacts on minorities and people affected by the project. As an example, large scale infrastructure projects in indigenous community-concentrated regions will be categorized as "high risk" during the loan approval process. The highest risk projects (category A) will not be eligible for green or sustainability bond funding. The issuer has confirmed that they will hire a qualified third-party consultant with relevant expertise to participate in the process of project evaluation and selection.

For all funded projects, ADBC monitors identified risks and the environmental and social risk management of beneficiaries (projects) during the whole credit management process and establishes corresponding verification procedures to ensure that the project implements the relevant social and environmental standards.

Through the Green Credit Policy and the two-step green and sustainability bond selection process, various departments will be involved in the selection of eligible assets. These include the Credit Management Department, the Strategic Planning Department, the Treasury Department and the Front Offices of branches. According to the issuer, sustainability and environmental expertise will be involved in the project selection process.

ADBC has a dynamic mechanism to monitor the environmental and social performance of financed projects. If projects are assessed to be no longer eligible, they will be removed from receiving bond proceeds and will be replaced by Eligible Projects from the qualified asset pool.

### **Management of proceeds**

ADBC will establish an independent register to record the allocation of proceeds from each sustainability or green bond issuance. Proceeds will be deposited in general funding accounts and tracked through a formal internal process to ensure the linkage of proceeds to the eligible asset pool. The issuer has informed us that they

will engage an independent third party verifier to conduct annual post-issuance audits on the allocation of proceeds. The verification report will be publically available via annual updates.

Unallocated proceeds will be invested in green bonds and/or money market instruments with good credit ratings and market liquidity. The issuer has committed to fully allocating sustainability bond proceeds to green or social assets within 24 months after each issuance. CICERO finds the management of proceeds to be in line with the Green Bond Principles and the Social Bond Principles.

**Transparency and Accountability**

ADBC will report annually on its Green and Sustainability Bond issuances. The report will include reporting on use of proceeds as well as impact reporting. The reporting will be separated by bond type, providing distinct disclosure to investors in Green Bonds and investors in Sustainability Bonds.

ADBC will report the amount of allocated proceeds to each Green and/or Social Asset Category, the respective outstanding loan amount, and the geographical distribution of the funded assets. According to the framework, ADBC will report on the project category level, the issuer has informed us that they will provide project level data on certain specific projects.

The issuer has committed to extensive reporting on environmental and social impacts. Potential metrics include area of natural landscape preserved for projects in the green asset category “environmentally sustainable management of living natural resources and land-use” and number of beneficiaries for projects in the social asset category “affordable housing”. The framework lists relevant environmental and social metrics for all categories. The evaluation of benefits will combine qualitative and quantitative benefits, and the benefits/impacts of the project will be quantified as much as possible under feasible conditions. ADBC will engage a third party consultant to assist the disclosure of environmental and social benefits of the projects financed under this Framework.

The reporting will include disclosure on methodology, corresponding assumptions and benchmarks. The issuer has informed us that the annual report will be verified by an independent third party.

The reporting will be made publically available on the ADBC website <http://www.adbc.com.cn/> or the websites of stock exchanges where the bond(s) will be listed.

The table below lists the documents that formed the basis for this Second Opinion:

Table 1. Documents reviewed

<b>Document Number</b>	<b>Document Name</b>	<b>Description</b>
1	GREEN, SOCIAL AND SUSTAINABILITY BOND FRAMEWORK	The green and sustainability bond framework dated 3 <sup>rd</sup> November, 2018.

2	ADBC Green Credit Guidelines	A programmatic document on green credit clarifying organization, responsibility, policy system, procedure management, internal control, and information exposure.
3	ADBC Management Procedure for the Financing and Use of Green Financial Bonds (Official version)	A document description of the internal management procedure of green financial bonds within ADBC
4	ADBC Notice on Management of Green Credit Classification in CM2006 System	A document description of how to integrate the green credit classification into the existing credit management system
5	2016 Social Responsibility Report	ADBC annual social responsibility report from 2016
6	2017 Social Responsibility Report	ADBC annual social responsibility report from 2017
7	Opinions on credit support for poverty-stricken village upgrading projects 2018	Internal management procedure on credits used to support poverty-stricken villages
8	ADBC Five-year plan for policy-based financial measures on poverty alleviation 2016	A plan on how to alleviate poverty in rural villages in the coming five years
9	Opinions on the model to alleviate poverty via innovative industry 2016	Description of several practical models to support local industrial development in rural villages ensuring poverty alleviation
10	Report On Poverty Alleviation Through Finance 2016	ADBC report on poverty alleviation 2016

11	ADBC Management Regulations of Poverty Alleviation Loan 2017	A document on the detailed management procedure of loans to alleviate poverty
12	Poverty Alleviation Credit Policy Guidelines	ADBC credit policy for poverty alleviation issued in 2017
13	A report on implementation of the 13th Five-Year Action Plan on Vitalizing Border Areas and Enriching the People Living There issued by the State Council	A 2018 report by ADBC to China Banking and Insurance Regulatory Commission (CBIRC) on the implementation of the action plan issued by the State Council
14	Some opinions on supporting industries led by pioneers in rural villages through financial credit	A description of ADBC measures to support industries led by pioneers in rural villages
15	ADBC 2017 Green Financial Bond Independent Third Party Verification Report	CECEP Consulting verification report of ADBC 2017 green bond
16	Document name redacted for reasons of confidentiality	Documents on specific projects supported by green financial bonds of ADBC.

### 3 Assessment of ADBC's Green and Sustainability Bond framework and environmental and social policies

The framework and procedures for ADBC's sustainability or green bond investments are assessed and their strengths and weaknesses are discussed in this section. The strengths of an investment framework with respect to environmental impacts are areas where it clearly supports low-carbon projects, whereas the weaknesses are typically areas that are unclear or too general. In terms of social impacts, the strengths of eligible social asset categories are areas where social targets of the issuer and/ or specific Sustainable Development Goals (SDGs) are clearly supported, whereas the weaknesses are typically areas that are misaligned or cause severe social trade-offs. Pitfalls are also raised in this section to note areas where issuers should be aware of potential environmental and/or social impacts of investment projects.

#### Overall shading

ADBC may issue green bonds and sustainability bonds under this framework. This green and sustainability bond framework includes a broad range of project categories that generally support sustainable development.

#### Green Bonds

Green bonds will fund eligible green asset categories as described in table 2. Green projects must also meet the eligibility criteria in the 2015 China Green Bond Endorsed Project Catalogue. Based on the project category shadings detailed below, and consideration of the governance structure of the ADBC in terms of management, use of proceeds and transparency, we rate these bonds as Dark Green. The project category environmentally sustainable management of living natural resources and land-use also allows for the funding of agricultural projects in all shades of green, underscoring the responsibility of the issuer in careful project selection.

#### Sustainability Bonds

Sustainability bonds will fund eligible green and social assets as described in tables 2 and 3. Green projects must also meet the eligibility criteria in the 2015 China Green Bond Endorsed Project Catalogue, social projects must not meet these criteria. Based on the project category shadings detailed below, and consideration of the governance structure of the ADBC in terms of management, use of proceeds and transparency, we rated the Sustainability Bond Framework Medium Green. The Medium Green shading assumes a balanced implementation across green and social project categories, as has been indicated by the issuer. All shades of green can be funded by sustainability bonds.

#### Eligible projects under the Green and Sustainability Bond Framework

At the basic level, the selection of eligible project categories is the primary mechanism to ensure that projects deliver environmental and/or social benefits. Through selection of project categories with clear environmental/social benefits, sustainability and green bonds aim to provide certainty to investors that their investments deliver environmental/social returns as well as financial returns.

The following table provides an assessment of ADBC’s eligible green asset categories:

Table 2. Eligible Green Asset Categories

Category	Eligible project types	Green Shading and some concerns	Social considerations and concerns
<b>Sustainable water and wastewater management</b>	<ul style="list-style-type: none"> <li>The construction, operation and maintenance of water conservancy projects for flooding mitigation ;</li> <li>Water pollution prevention and control, river and lake pollution treatment facilities, and sewage treatment facilities;</li> <li>The development of unconventional water resources<sup>4</sup></li> </ul>	<p><b>Dark Green</b></p> <ul style="list-style-type: none"> <li>✓ Well-conceived water and wastewater projects are important climate adaptation projects</li> <li>✓ Consider potential emissions from the construction phase</li> <li>✓ Flood mitigation projects are important for mitigation. Projects that include the construction of reservoirs could have large negative impacts on the local environment, ecosystem services, biodiversity. The issuer has informed us that the construction of large reservoirs and dam projects will not be funded.</li> <li>✓ Consider potential impacts on local environment, ecosystem services, and biodiversity. The issuer partially addresses this concern by applying their environmental risk procedures of the Green Credit Policy. The issuer has informed us that at the preliminary design stage the hydrology, climate and geological conditions of the project will be considered, and corresponding</li> </ul>	<ul style="list-style-type: none"> <li>✓ Well-conceived water and wastewater projects are important to sustainable development of affected regions and populations</li> <li>✓ Projects that include the construction of reservoirs might change hydrologic regimes and could create breeding grounds for water-borne diseases and parasites. Such impacts may threaten health, safety and livelihoods of local communities.</li> <li>✓ Depending on reservoir size, relocation of communities may be necessary.</li> </ul>

<sup>4</sup> Unconventional water refers to water resources that are different from conventional surface water and groundwater, including rainwater, reclaimed water (recycled sewage and wastewater), and seawater, etc.

technical support plans/measures will be proposed.

**Environment  
ally  
sustainable  
management  
of living  
natural  
resources and  
land-use**

- Sustainable agriculture (including the improvement and recovery of agricultural lands, such as the construction of a High Standard Farm);
- Sustainable forestry projects such as afforestation or reforestation, conservation and;
- Urban greening projects

**Dark – light green**

- ✓ Sustainable agriculture projects are aimed at improving land fertility, reducing fertilizer use, improving water efficiency and resilience. These projects are important for sustainable development. However, as targets will be set at the project level only, and in some cases may not be feasible to set for all projects, the level of ambition is unclear. The issuer has however committed to report on impacts at a category level.
- ✓ Re-forestation and afforestation projects are important for a 2050 climate solution.
- ✓ The issuer has confirmed that commercial forestry is excluded from the framework
- ✓ Urban greening projects are important for sustainable cities. These are green planting in urban areas, for example the building of parks, greening alongside roads and riverbanks.

- ✓ The issuer assures that projects will only be approved if they are classified as feasible and provide benefits to local communities. However, funded agricultural projects and afforestation projects might maintain or cause land-use conflicts in affected areas.

**Renewable  
Energy**

- The production and transmission of renewable energy including only solar and wind power.

**Dark Green**

- ✓ Solar and wind are key to the low-carbon transition
- ✓ Consider lifecycle pollution for all technologies. The issuer has informed us that

- ✓ Renewable energy projects can have potential negative impacts on local communities

- 
- they will encourage suppliers to use energy efficient, environmentally friendly materials, partially mitigating this concern.
  - ✓ Renewable energy projects can have potential negative impacts on biodiversity. The environmental risk procedures in the Green Credit Policy address local environmental impacts, we encourage the issuer to stringently follow up the implementation to ensure the dark green ambitions of the category are maintained.
- 

The following table provides an assessment of ADBC’s eligible social asset categories. Appendix A provides more details about each category’s potential to contribute to specific SDG targets: Table 3. Eligible Social Asset Categories

Table 3. Eligible Social Asset Categories

Category	Eligible project types	Green Shading and some concerns	SDG contributions, positive remarks and concerns
<b>Affordable housing</b>	<ul style="list-style-type: none"> <li>• Project that aim to provide affordable housing to impoverished populations, including shanty town renovation projects<sup>5</sup></li> </ul>	<p><b>Light Green</b></p> <ul style="list-style-type: none"> <li>✓ The issuer has confirmed that proceeds will not be invested in any fossil fuel related assets and that any carbon intensive infrastructure will not be financed. Any new power grid shall be of renewable energy.</li> </ul>	<ul style="list-style-type: none"> <li>• <b>SDG 1: No poverty.</b></li> <li>• <b>SDG 11: Sustainable cities and communities.</b></li> <li>✓ Category in line with ADBC’s social targets.</li> <li>✓ State authorities are responsible for ensuring that new housing projects are affordable for target populations. Local governments formulate compensation plans for</li> </ul>

---

<sup>5</sup> Shanty town renovation is a Chinese government-led measure that aims to transform urban dilapidated housings and improve the living conditions for households in needs.

- ✓ Some resiliency considerations are taken into account, the issuer has informed us that at the preliminary design stage the hydrology, climate and geological conditions of the project will be considered, and corresponding technical support plans/measures will be proposed
  - ✓ Energy efficiency in towns might increase due to shanty town renovations. But energy efficiency performance of technologies and construction materials used in renovated houses will likely not be best in class and there is a risk of locking in inefficient infrastructure
- shantytowns, stipulate resettlement methods and compensation standards.
  - ✓ The issuer confirms that renovation projects also include the renovation of supporting infrastructure such as water treatment, waste treatment, and public transportation facilities. These are important for the sustainable development of communities.
  - ✓ The issuer assures to focus on the development of vulnerable groups. However, it remains unclear if renovation projects pay attention to gender equality and special needs of vulnerable population groups such as elderly, indigenous peoples, migrants, persons with disabilities.
  - ✓ Social inequalities and conflicts might occur if only certain houses/areas within communities are renovated.

**Affordable Basic Infrastructure and services**

- Includes the construction of basic infrastructure such as water networks, sanitation facilities, basic medical facilities, information networks and renewable power facilities to improve the

**Light Green**

- ✓ The issuer has confirmed that this is an exhaustive list of infrastructure for funding by green or sustainability bonds.
- ✓ Proceeds will not invest in any fossil fuel related assets and any new power grid shall be of renewable energy.
- ✓ Some resiliency considerations are taken into account

- **SDG 1: No poverty**
- **SDG 3: Good health and well-being.**
- **SDG 4: Quality education**
- **SDG 6: Clean water and sanitation**
- **SDG 7: Affordable and clean energy**
- **SDG 8: Decent work and economic growth**
- **SDG 11: Sustainable cities and communities**
- ✓ Category in line with ADBC's social targets and

---

<p>living environment in poverty-stricken areas;</p> <ul style="list-style-type: none"> <li>• Provision of basic services, such as medical services and education and training opportunities, to impoverished population</li> </ul>	<ul style="list-style-type: none"> <li>✓ There is a risk of locking in inefficient infrastructure, we encourage careful consideration should be taken in assessing projects to ensure the best possible technology is utilized</li> <li>✓ The environmental risk procedures in the Green Credit Policy address local environmental impacts,</li> <li>✓ The provision of basic services is important from a social sustainability perspective and is not perceived to have significant environmental impacts, however, we encourage the integration of environmental consideration where appropriate, for example in the handling of medical waste (which the issuer has informed us will be handled by a 3<sup>rd</sup> party agency)</li> </ul>	<p>target population is clearly defined.</p> <ul style="list-style-type: none"> <li>✓ State authorities are responsible for ensuring that provided public infrastructure services and basic services are affordable for target populations.</li> <li>✓ The issuer assures to focus on the development of vulnerable groups. However, it remains unclear if any special attention is paid to improving the access to basic services (such as education and medical services) for women and (female) children and vulnerable population groups such as elderly, indigenous peoples, migrants, persons with disabilities.</li> </ul>
---	--	---

---

## Strengths

### Governance

ADBC has several ESG procedures and safeguards in place. The Green Credit Guideline ensures that the following is completed for all funded projects:

1. A compliance review covering environmental and social regulations.
2. An integrated environmental and social risks review, including but not limited to: industry policies, market standards, an energy conservation assessment review and biodiversity conservation and management of sustainable natural resources. Examples of the social related elements ADBC takes into consideration during the loan disbursement process include health effects to local residents and work staff, occupational safety, effects to indigenous communities.
3. A review of the customer's own environmental and social risk management ability, including customer's environmental and social risk assessment and management system, the implementation of safety production and hygiene/health standards, explosives and chemicals management and pollution prevention and control.
4. An assessment of the impacts of such environmental and social risks on the ability to make repayment

As a part of the Green Credit Policy, ADBC also reviews the environmental and social risks in the supply chain. The issuer has informed us that they will encourage supplier to green and sustainability bond projects to use energy efficient, environmentally friendly materials.

The exclusion of projects assessed with “high risk” and the exclusion list (excluded sectors and activities) safeguards against the funding of projects most likely to cause large environmental damage and/or projects with high social risks. For example, ADBC has explicitly excluded fossil fuels, including clean coal, and projects in indigenous community-concentrated regions from funding under the framework.

ADBC has a strong track record of providing transparency for bond investors. The issuer reports annually on social aspects of bond issuances and since issuing their first green bond, ADBC has also completed a special audit on green bond proceeds and published quarterly reporting for green bonds.

The framework includes impressive impact reporting objectives with green indicators for projects in table 2 and social indicators in table 3. For example, the issuer will report on the additional forestation areas converted, the area of natural landscape preserved and number of species protected. These metrics track the environmental impact of afforestation and conservation projects. These indicators provide good transparency on the broad category of projects defined as environmentally sustainable management of living natural resources and land-use. The issuer has informed us that they view the impact indicators in the framework as a starting point for further work and have engaged a consultant with the purpose to enhance reporting. The issuer has further informed us that their ambition is for green projects under this framework to report on social indicators and social projects on green indicators, given data availability. ENSO views this as a strength and strongly encourages the issuer to include green and social indicators for all project categories. We encourage the issuer to disclose project level impacts to the extent possible, to fully report on the sustainability impact (both negative and positive) of projects.

It is encouraging that ADBC intends to describe evaluation methods and key assumptions in their impact reports, and that the issuer will publically disclose reports. It is also encouraging that an external auditor will review use of proceeds and that impact reporting information will be verified by an independent third party.

### *Project categories*

The ADBC framework provides a robust structure for sustainable investment. While the projects categories have either a green or social goal, all projects are screened for both environmental and social risks.

### **Green Projects**

The framework includes project categories that are key to the transition to a low carbon, climate resilient future. The framework also supports projects that contribute to both mitigation and adaptation. For example the urban greening projects contributes to storm water management and resiliency of cities, in addition to increasing carbon sinks through tree planting.

Renewable energy projects to be funded are limited to the production and transmission of solar and wind power. These projects represent key technology supporting the transition to a low-carbon and climate-resilient society. Renewable energy projects can raise potential concerns regarding site selection, supply chain emissions and local environmental impact during the construction phase and operations. The issuer has informed us that they will encourage suppliers to use energy efficient, environmentally friendly materials, partially mitigating this concern. We encourage the issuer to stringently follow up the implementation of their environmental risk procedure to ensure the dark green ambitions of the category are maintained.

Sustainable water projects that can be funded under the framework include projects that are important to enhance resilience to the impacts of climate change. For example, the construction and operation of water conservancy projects for flooding mitigation. This category also includes projects that are important for the local environment and reduce pollutants, for example river and lake pollution treatment facilities, and sewage treatment facilities. The inclusion of unconventional water resources is a strength. These water resources include rainwater, reclaimed water (recycled sewage and wastewater), and seawater, underutilized water resources that do not draw from conventional freshwater sources.

The green asset category “Environmentally sustainable management of living natural resources and land-use” includes a broad range of green projects. There are three project types in this category: sustainable agriculture, sustainable forestry and urban greening projects.

Urban greening projects are important for resilient cities and the inclusion of these is a strength. Sustainable forestry is an important element in the low-carbon and climate resilient society. Avoiding deforestation and forest degradation combined with afforestation will play a role in reducing CO<sub>2</sub> emissions and sequestering carbon to counterbalance emissions from other sources. The issuer has informed us that projects include both natural reserves, which can be important carbon sinks, and the use of forestation to enhance reliance towards storms and other weather events, important environmental projects. Commercial forestry is excluded from the framework.

Sustainable agriculture under this framework refers to projects that aim to improve the quality and fertility of land resources. According to the issuer, sustainable agriculture could include soil improvement and fertilization, irrigation and drainage, field roads, farmland protection and ecological environment, and other engineering construction to achieve efficient farmland ecosystems. The issuer has informed us that the overall aim of the projects is to improve land fertility, reduce fertilizer use, improve water efficiency and resilience. The project category only includes the enhancement of existing farmland and typically, a range of measures would be implemented. The issuer has informed us that engineering construction typically includes drainage or the planting of trees to improve resilience, and that the roads that can be funded are limited to access roads for farm equipment. The purchase of new farm equipment is excluded.

The green categories include projects with social co-benefits, for example: improved waste water management can improve sanitation conditions; flood protection, reforestation and urban greening projects will protect communities and their livelihoods against climate change impacts and natural disasters; and renewable energy projects replacing fossil fuel based energy sources (for example, coal) will reduce health threats for affected populations.

### **Social Projects:**

The framework includes project categories that are important for socio-economic development and poverty alleviation in China. The provision of affordable housing and essential services to people living in poverty is key for improving their living conditions, empowering them and lifting them out of poverty.

The eligible social asset categories are aligned to and contribute to the implementation of several SDGs targets. Eligible projects support SDG 1 No poverty, SDG 3 Good health and well-being, SDG 4 Quality education, SDG 6 Clean water and sanitation, SDG 7 Affordable and clean energy, SDG 8 Decent work and economic growth, and SDG 11 Sustainable cities and communities. Annex 1 presents in more detail which specific SDG targets are supported by the different social asset categories. The strong alignment with several SDGs highlights the value of social asset categories for implementing sustainable development targets in China.

Severe environmental risks are mitigated or managed by the issuer. For example, the category Affordable Basic Infrastructure and services includes long-lived infrastructure projects. It is important to design and build sustainable projects that avoid locking in fossil fuels and are resilient to the impacts of climate change. ADBC has confirmed that proceeds will not invest in any fossil fuel related assets and any new power grid shall be of renewable energy. In addition, they have excluded any carbon intensive infrastructure, which includes roads and airports. Some resiliency considerations are also taken into account. The issuer has informed us that at the preliminary design stage the hydrology, climate and geological conditions of the project will be considered, and corresponding technical support plans/measures will be proposed. These are important measures and we further encourage careful consideration should be taken in assessing projects to ensure the best possible technology is utilized.

### **Weaknesses**

No significant weaknesses perceived.

### **Pitfalls**

#### *Governance*

ADBC is a policy bank and supports the Chinese governments' sustainability policies and has outlined has defined "five areas of dedicated service". ADBC works to achieve the quantitative targets for environmental protection and poverty alleviation set by the Chinese government. However, the bank does not set additional quantitative environmental and social targets specific to its own operations. ADBC emphasizes to be a national policy bank and requires adherence to national targets and regulations<sup>6</sup>. This is an additional assurance that many

---

<sup>6</sup> China has ratified 25 international labor conventions covering minimum employment age, minimum wage, working hours and rest time, equal pay for equal work for men and women, and employment of disabled persons. In these areas, China's domestic laws and regulations are consistent with the approved convention. China is not on the Equator Principles list of Designated Countries. Designated Countries are those countries deemed to have robust environmental and social governance,

social and environmental issues will be addressed on a project-level. However, it needs to be noted that Chinese regulations also present ADBC’s benchmark in this space and potential gaps might pose a risk that certain issues are not addressed according to international social and environmental standards (for example: assurance of certain labor rights, requirements for sustainable agriculture).

ADBC has a two-step selection process, and an ESG screening through the Green Credit Policy. All projects funded under this framework are subject to environmental impact assessments (EIAs) and Social Stability Assessment in line with national regulations. As per the policy, ADBC classifies the project into different risk categories based on risks identified in the EIAs and Social Stability Assessment and track records of the project owner as well as national cap on projects with high-energy consumption and high emission or with overcapacity; and projects categorized as high-risk by will not be funded by ADBC according to their Green Credit Policy. ADBC has a responsibility to ensure a rigorous environmental and social assessment that supports the sustainability ambitions of the framework.

The issuer’s Green and Sustainability Bond Framework mentions a list of social impact indicators to be used for impact reporting. Indicators for the eligible social asset category “Affordable housing” suggests reasonable impact indicators. However, impact indicators highlighted for the eligible social asset category “affordable basic infrastructure and services” appear to be output indicators of funded projects rather than indicators to measure social impacts on the ground. Especially, for the sub-category “provision of basic services”, more sophisticated impact indicators would be desirable. ENSO is encouraged that the issuer is working with a consultant to further develop impact reporting.

#### *Project categories*

ADBC could more strongly address trade-offs and interlinkages between the two project categories. Projects to be financed under this framework have either a green or a social objective. However within a sustainability bond framework, both project types should be aligned with the transition to a low-carbon, climate resilient future and pose no serious social concerns. Limiting the analysis of green projects to environmental concerns and social projects to social concerns, could lead to the risk of projects financed under the same framework counteracting each other. In addition, to be truly sustainable, each project needs to be both environmentally and socially sound. For example, a social housing project is not sustainable if issues of resiliency are ignored and the project is built in a flood zone. The issuer has informed us that they are aware of possible trade-offs and has taken steps to mitigate these. The environmental and social risks of all projects are evaluated through the risk management mechanism of ADBC. For sustainability and green bond funding, the issuer has also informed us that proceeds will not be invested in any fossil fuel related assets, that any new power grid will consist of renewable energy and that carbon intensive infrastructure will not be financed. However, these concerns could be more strongly

---

legislation systems and institutional capacity designed to protect their people and the natural environment. China has not ratified the following conventions of the International Labor Organization (ILO):

- ILO Convention 87 on Freedom of Association and Protection of the Right to Organize
- ILO Convention 98 on the Right to Organize and Collective Bargaining
- ILO Convention 29 on Forced Labor
- ILO Convention 105 on the Abolition of Forced Labor
- UN Convention on the Protection of the Rights of all Migrant Workers and Members of their Families

For an up-to-date list of all ILO Conventions and Protocols not ratified by China, see:

[https://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:11210:0::NO::P11210\\_COUNTRY\\_ID:103404](https://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:11210:0::NO::P11210_COUNTRY_ID:103404)

addressed by adding specific environmental criteria to social projects and social criteria to environmental projects, and as such ensuring that all projects funded are truly sustainable.

### **Green Projects**

Sustainable agriculture is important for sustainable development, however, the level of ambition determines the shade of green allocated. Although, ADBC lacks targets or minimum criteria (for example on the level of water efficiency required for these projects) which would have been required for a dark green shading, the issuer has informed us that their ambition is for individual targets to be set for all projects. According to the issuer, if feasible, third-party consultants will evaluate the environmental benefits of each project. The issuer has informed us that major indicators could include the PH value and organic contents in the soil, and water-saving rate and water efficiency of irrigation. ADBC has explained to us that the project-specific indicators will depend on overall evaluation of the land resources and key problems identified for the land as well as solutions proposed in improvement. Therefore, project level indicators could be different. The issuer will disclose impact indicators by asset category with specific disclosure on certain specific projects as case studies, given that the data is available after the project passes acceptance by regulatory departments. For sustainable agriculture, the issuer specified that while they plan to report on impact data every year, the benefits for some of these projects will be realized after the project construction and benefits will be calculated at that time. Therefore they cannot guarantee that data will be obtained and disclosed each fiscal year. ENSO understands that impact reporting is a work in progress and encourages the issuer to work to continuously improve transparency towards investors.

Sustainable water projects aimed at flooding mitigation are important for adaptation and sustainable development. However, projects that include the construction of dams or reservoirs raise environmental and social concerns. These interventions could have large negative impacts on the local environment, ecosystem services and biodiversity. Reservoirs might change hydrologic regimes and could create breeding grounds for water-borne diseases and parasites. Such impacts may threaten health, safety and livelihoods of local communities. Depending on reservoir size, relocation of communities may be necessary. The issuer has informed us that the construction of large reservoirs and dam projects will not be funded. The issuer has informed us that at the preliminary design stage the hydrology, climate and geological conditions of the project will be considered, and corresponding technical support plans/measures will be proposed.

### **Social Projects:**

The eligible social asset category “Affordable housing” does not clarify if targeted renovation projects pay attention to gender equality and special needs of vulnerable population groups such as elderly, indigenous peoples, migrants, and persons with disabilities. Likewise, it remains unclear whether eligible projects under the asset category “Affordable basic infrastructure and services” pay special attention to improving the access to basic services for women and (female) children and vulnerable population groups such as elderly, indigenous peoples, migrants, and persons with disabilities. These social considerations are however crucial to ensure social equality and safeguard the rights and needs of minorities and vulnerable people.

The social projects listed in table 3 are not required to follow the criteria in the China Green Bond catalogue, despite several projects being infrastructure listed in the catalogue (for example, renewable energy and housing). While there are some environmental screens, there still the risk of locking in inefficient infrastructure. For example, affordable housing that is energy inefficient.

# Appendix A:

## Eligible Social Asset Categories and SDGs

The following table provides details about ADBC's eligible social asset categories and their contributions towards achieving SDG targets in China:

Category	Eligible project types	SDG contributions, positive remarks and concerns
<b>Affordable housing</b>	Projects that aim to provide affordable housing to impoverished populations, including shanty town renovation projects	<p><b>SDG 1: No poverty</b></p> <ul style="list-style-type: none"> <li>Target 1.4: By 2030, ensure that all men and women, in particular the poor and the vulnerable, have equal rights to economic resources, as well as access to basic services, ownership and control over land and other forms of property, inheritance, natural resources, appropriate new technology and financial services, including microfinance.</li> </ul> <p><b>SDG 11: Sustainable cities and communities</b></p> <ul style="list-style-type: none"> <li>Target 11.1: By 2030, ensure access for all to adequate, safe and affordable housing and basic services and upgrade slums.</li> </ul>
<b>Affordable Basic Infrastructure and services</b>	Includes the construction of basic infrastructure such as water networks, sanitation facilities, basic medical facilities, renewable power facilities and information networks to improve the living environment in poverty-stricken areas	<p><b>SDG 1: No poverty.</b> Potentially various targets are positively affected.</p> <ul style="list-style-type: none"> <li>✓ Target 1.4: By 2030, ensure that all men and women, in particular the poor and the vulnerable, have equal rights to economic resources, as well as access to basic services, ownership and control over land and other forms of property, inheritance, natural resources, appropriate new technology and financial services, including microfinance.</li> </ul> <p><b>SDG 3: Good health and well-being.</b> Potentially various targets are positively affected.</p> <ul style="list-style-type: none"> <li>✓ Target 3.1: By 2030, reduce the global maternal mortality ratio to less than 70 per 100,000 live births.</li> <li>✓ Target 3.2: By 2030, end preventable deaths of newborns and children under 5 years of age, with all countries aiming to reduce neonatal mortality to at least as low as 12 per 1,000 live births and under-5 mortality to at least as low as 25 per 1,000 live births.</li> </ul>

- 
- ✓ Target 3.3: By 2030, end the epidemics of AIDS, tuberculosis, malaria and neglected tropical diseases and combat hepatitis, water-borne diseases and other communicable diseases.
  - ✓ Target 3.4: By 2030, reduce by one third premature mortality from non-communicable diseases through prevention and treatment and promote mental health and well-being.
  - ✓ Target 3.8: Achieve universal health coverage, including financial risk protection, access to quality essential health-care services and access to safe, effective, quality and affordable essential medicines and vaccines for all.
  - ✓ Target 3.9: By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination.

**SDG 6: Clean water and sanitation.** Potentially various targets are positively affected.

- ✓ Target 6.1: By 2030, achieve universal and equitable access to safe and affordable drinking water for all.
- ✓ Target 6.2: By 2030, achieve access to adequate and equitable sanitation and hygiene for all and end open defecation, paying special attention to the needs of women and girls and those in vulnerable situations.

**SDG 7: Affordable and clean energy.** Potentially various targets are positively affected.

- ✓ Target 7.1: By 2030, ensure universal access to affordable, reliable and modern energy services.
- ✓ Target 7.2: By 2030, increase substantially the share of renewable energy in the global energy mix.
- ✓ Target 7.b: By 2030, expand infrastructure and upgrade technology for supplying modern and sustainable energy services for all in developing countries, in particular least developed countries, small island developing States, and land-locked developing countries, in accordance with their respective programmes of support.

✓

---

**Affordable  
Basic  
Infrastruc-  
ture and  
services**

- ✓ Provision of basic services, such as medical services and education and training

**SDG 1: No poverty.** Potentially various targets are positively affected.

- ✓ Target 1.4: By 2030, ensure that all men and women, in particular the poor and the vulnerable, have equal rights to economic resources, as well as access to basic services,

---

opportunities, to  
impoverished  
population

ownership and control over land and other forms of property,  
inheritance, natural resources, appropriate new technology  
and financial services, including microfinance.

**SDG 3: Good health and well-being.** Potentially various targets are positively affected.

- ✓ Target 3.1: By 2030, reduce the global maternal mortality ratio to less than 70 per 100,000 live births.
- ✓ Target 3.2: By 2030, end preventable deaths of newborns and children under 5 years of age, with all countries aiming to reduce neonatal mortality to at least as low as 12 per 1,000 live births and under-5 mortality to at least as low as 25 per 1,000 live births.
- ✓ Target 3.3: By 2030, end the epidemics of AIDS, tuberculosis, malaria and neglected tropical diseases and combat hepatitis, water-borne diseases and other communicable diseases.
- ✓ Target 3.4: By 2030, reduce by one third premature mortality from non-communicable diseases through prevention and treatment and promote mental health and well-being.
- ✓ Target 3.7: By 2030, ensure universal access to sexual and reproductive health-care services, including for family planning, information and education, and the integration of reproductive health into national strategies and programmes.
- ✓ Target 3.8: Achieve universal health coverage, including financial risk protection, access to quality essential health-care services and access to safe, effective, quality and affordable essential medicines and vaccines for all.

**SDG 4: Quality education.** Potentially various targets are positively affected:

- ✓ Target 4.1: By 2030, ensure that all girls and boys complete free, equitable and quality primary and secondary education leading to relevant and Goal-4 effective learning outcomes.
  - ✓ Target 4.2: By 2030, ensure that all girls and boys have access to quality early childhood development, care and preprimary education so that they are ready for primary education.
  - ✓ Target 4.3: By 2030, ensure equal access for all women and men to affordable and quality technical, vocational and tertiary education, including university.
  - ✓ Target 4.4: By 2030, substantially increase the number of youth and adults who have relevant skills, including technical
-

---

and vocational skills, for employment, decent jobs and entrepreneurship.

- ✓ Target 4.6: By 2030, ensure that all youth and a substantial proportion of adults, both men and women, achieve literacy and numeracy.

**SDG 8: Decent work and economic growth.**

- ✓ Target 8.6: By 2020, substantially reduce the proportion of youth not in employment, education or training.
-

# Appendix B: About CICERO

CICERO Center for International Climate Research is Norway's foremost institute for interdisciplinary climate research. We deliver new insight that helps solve the climate challenge and strengthen international climate cooperation. We collaborate with top researchers from around the world and publish in recognized international journals, reports, books and periodicals. CICERO has garnered particular attention for its work on the effects of manmade emissions on the climate and the formulation of international agreements and has played an active role in the UN's IPCC since 1995.

CICERO is internationally recognized as a leading provider of independent reviews of green bonds, since the market's inception in 2008. CICERO Second Opinions won several international prizes, including an award from Climate Bonds Initiative for being the biggest second opinion provider (2017) and two awards from Environmental Finance for being the best external review provider (2017, 2018).

CICERO Second Opinions are graded dark green, medium green and light green to offer investors better insight in the environmental quality of green bonds. The shading, introduced in spring 2015, reflects the climate and environmental ambitions of the bonds in the light of the transition to a low-carbon society.

CICERO works with both international and domestic issuers, drawing on the global expertise of the Expert Network on Second Opinions. Led by CICERO, ENSO is comprised of trusted research institutions and reputable experts on climate change and other environmental issues, including the Basque Center for Climate Change (BC3), the Stockholm Environment Institute, the Institute of Energy, Environment and Economy at Tsinghua University and the International Institute for Sustainable Development (IISD). ENSO operates independently from the financial sector and other stakeholders to preserve the unbiased nature and high quality of second opinions.

[cicero.oslo.no/Greenbonds](http://cicero.oslo.no/Greenbonds)



# Appendix C: About IISD

The **International Institute for Sustainable Development (IISD)** is an independent policy research organization working to deliver the knowledge to act. From offices in Winnipeg, Geneva, Ottawa, Toronto and New York, IISD's work impacts lives in nearly 100 countries.

IISD provides practical solutions to the growing challenges and opportunities of integrating environmental and social priorities with economic development. IISD reports on international negotiations and shares knowledge gained through collaborative projects, resulting in more rigorous research, stronger global networks, and better engagement among researchers, citizens, businesses and policy-makers.

The Public Procurement and Infrastructure Finance Sub-Program at IISD provides advisory services to public and private sector clients for the design and implementation of policies, programs and tools to prepare, finance and de-risk sustainable and low-carbon infrastructure.

IISD is registered as a charitable organization in Canada and has 501(c)(3) status in the United States. IISD receives core operating support from the Government of Canada, provided through the International Development Research Centre (IDRC) and from the Province of Manitoba. IISD receives project funding from numerous governments inside and outside Canada, United Nations agencies, foundations, the private sector and individuals.

[www.iisd.org](http://www.iisd.org)