Green Financing Guidelines and Framework for China Pakistan Economic Corridor (CPEC) - Baseline research

Date: February 2023

This research paper is produced by the Green Finance & Development Center (GFDC) of the Fanhai International School of Finance at Fudan University, Shanghai, P.R. China, the Sustainable Development Policy Institute (SDPI) in Pakistan, and the Pakistan-China Institute (PCI) in Pakistan.

The findings, interpretations, and conclusions expressed in this paper are entirely those of the author(s) and should not be attributed in any manner to any of the institutions, to its affiliated organizations, or to members of its Board of Executive Directors.

Citation and the use of material presented in this brief should consider this provisional character.

Researchers:

Christoph Nedopil, Professor and Director Green Finance & Development Centers, FISF Fudan University, Shanghai, P.R. China

Hina Aslam, Research Fellow, Sustainable Development Policy Institute (SDPI), Pakistan

Supporters and advisors

Mr. Mustafa Hyder Sayed, Executive Director, Pakistan China Institute, Pakistan

Mr. Ubaid ur Rehman Zia, Senior Research Associate, Sustainable Development Policy Institute (SDPI), Pakistan

Mr. Maaz Sherani, Project Assistant, Sustainable Development Policy Institute (SDPI), Pakistan

Please quote as:

Nedopil, Christoph, and Hina Aslam (February 2023): “Green Financing Guidelines and Framework for China Pakistan Economic Corridor (CPEC) - Baseline research paper”, GFDC FISF Fudan University, SDPI and PCI, Shanghai and Islamabad

Executive Summary

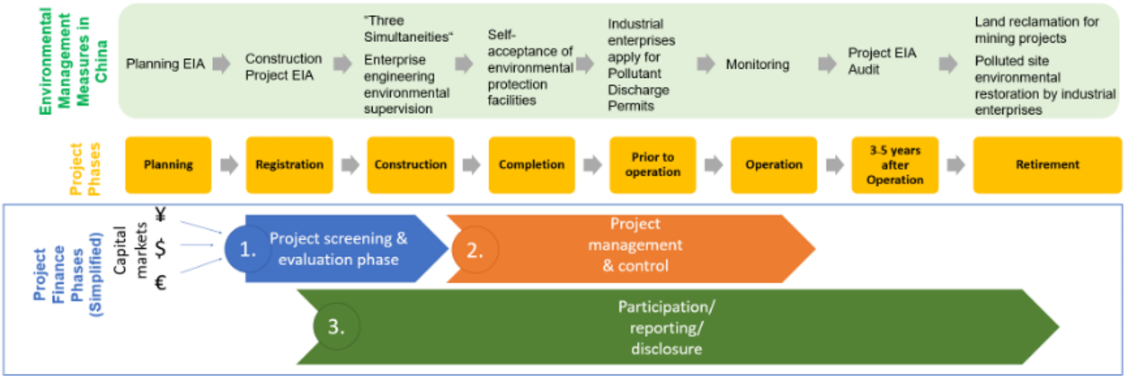
Greening finance in the China Pakistan Economic Corridor (CPEC) is a unique opportunity to accelerate the green transition of Pakistan, for example in the energy, transport, and agricultural sector. Pakistan requires billions of dollars not only to transform its energy system, but to build resilience against the consequences of climate change.

China and Pakistan have closely worked together in investing and financing soft and hard infrastructure through the CPEC – one of the corridors of China's Belt and Road Initiative (BRI). Both countries have made significant progress of improving the foundations for green finance. Pakistan has issued several key documents, including green banking guidelines, green bond guidelines and providing refinancing facilities. China has not only pushed for green finance domestically, but more importantly has provided key policy documents to accelerate green finance in the Belt and Road Initiative (BRI). It has also developed a traffic light system to evaluate projects for their environmental impacts and to accelerate green projects.

This document analyzes the financing needs and potentials of Pakistan for a green transition and espouses to accelerate green finance within CPEC. It further analyzes relevant green finance documents from Pakistan, China and internationally. Based on this analysis, the researchers in collaboration with local stakeholders in government, finance and developers through workshops and interviews suggests 12 recommendations for greening finance for CPEC that could be relevant for Chinese, Pakistani and international financial institutions, project developers and policy makers.

CPEC Green Financing Recommendations

Recommendation 1: For project finance, green investment practices address all project phases: To accelerate green overseas investments, environmental concerns during the whole project lifecycle must be addressed. The project life cycle includes multiple phases. For investors the phases can be divided into project screening and evaluation, project monitoring and control, and public participation—reporting and information disclosure. Engaged stakeholders should take responsibilities to enhance the green development of project throughout the lifecycle.



Note: EIA = environmental impact assessment; the "Three Simultaneities" refers to the China's requirement that pollution prevention facilities in construction projects should be designed, constructed and put into use at the same time as the main project.

Recommendation 2: Exclusion List[1]: Agree on an exclusion list of environmentally harmful projects that must not receive investment in CPEC. Projects on Exclusion Lists include those that have severe and irreversible negative impacts on ecological development goals without feasible possibilities for mitigation.

Recommendation 3: Accelerate green investment: Financial institutions, developers, and regulators should focus on developing green investment opportunities and strive to prefer green investments over other investments according to local conditions. such green investments could be evaluated according to the Traffic Light System of the BRIGC Green Development Guidance.

Recommendation 4: Environmental Impact Assessment: For projects, project developers must obtain an independent Environmental Impact Assessment (EIA) for each project, which should be overseen by financial institutions involved in project finance. According to Equator Principles, low-risk projects require at least a locally required EIA. For medium- and high-risk projects, the standards are more stringent and should be compatible with international best practice (e.g., World Bank Environmental and Social Standards [ESS] or International Finance Corporation [IFC] Performance Standards), which include disclosure and public participation and industry-specific EIAs.

Recommendation 5: Differentiated and risk-adjusted financing conditions and green financial instruments: Financial institutions consider environmental risks in their financing conditions (i.e., better financing conditions and fast-track approval for green projects, restraining the approval for red projects). Financial institutions should also aim to offer - in collaboration with policy and development financial institutions - a variety of instruments to

[1] The Exclusion List is different from the red categorization of projects.

allow for risk mitigation and improve risk-adjusted returns (e.g., bonds, facilities, commercial guarantees, insurances).

Recommendation 6: Environment and Social Management System: Financial institutions require an Environment and Social Management System (ESMS) from their clients for all medium- and high-risk projects. The ESMS includes environmental (and social) mitigation measures that are measurable and need to be reported at least every six months to the financial institution.

Recommendation 7: Grievance redress mechanism: Financial institutions provide an easy-to-access and transparent grievance redress mechanism for people and NGOs that are potentially negatively affected by projects throughout the project phases, starting during the project evaluation. Contact information is made readily available for affected persons, NGOs, and others who wish to contact the financial institution to express concerns or objections to a new or existing project in the institution's portfolio. The grievance redress mechanism must be available in local language(s).

Recommendation 8: Covenants: Financial institutions include covenants in their investment agreements that allow them to work with clients to rectify breach of environmental and social agreements and, if need be, to exercise remedies, including calling events of default.

Recommendation 9: Public environmental reporting: Financial institutions provide independent reporting on the environmental performance of projects in their portfolio, including details on emissions, pollution, and biodiversity targets and impact; risk management; strategy; and governance. They use both required and applicable internationally recognized standards.

Recommendation 10: Adopting green and circular supply chain management: Supply chains should support green development patterns with low carbon footprint, no negative biodiversity impact, and no pollution, while ideally a circular supply chain management should be envisaged to not only reduce, but eliminate waste and maximize resource utilization, recycling, and re-use.

Recommendation 11: International cooperation: Financial institutions can share environmental data with relevant global authorities to support global data repositories on climate and biodiversity. For example, the Equator Banks share both climate and biodiversity data of their investments.

Recommendation 12: Building capacity through collective action: Capacity building on environmental (and social) risk evaluation, risk management and relevant international reporting should be strengthened through international collaboration and digital and offline knowledge sharing for financial institutions, policy makers and developers, as well as affected communities.

Content

1. Introduction - the value of green finance for CPEC

China and Pakistan through the China Pakistan Economic Corridor (CPEC) have committed to strengthening cooperation in infrastructure, trade and people-to-people exchanges, as well as in financial cooperation and standardization. As potentially the most important corridor of China's Belt and Road Initiative (BRI), CPEC can play a leading role in shaping the development of the overall BRI.

An important area of cooperation is green and sustainable development: As risks of global climate change are accelerating and biodiversity losses are becoming more obvious, China and Pakistan have recognized the need to accelerate a green transition of its economic activities, for example in energy, transport, and agriculture. China has promised to build a green BRI and to support the green transition in its overseas investments in adherence with the Paris Agreement on the highest policy levels. Similarly, Pakistan has a firm commitment to the Paris Agreement and strengthened its ambitions by promising to not build new coal fired power plants in 2020. Achieving this green transition requires a clear vision and framework on what to finance and how to finance different projects under CPEC.

This document accordingly aims to provide a baseline research for green financing guidelines for CPEC with the goal to provide a tool for policy makers, financial institutions, and project developers to better utilize green financing to accelerate the green transition through international collaboration and finance. The research focuses on available Chinese, Pakistani and international standards on green financing, such as regulatory approaches (e.g., the March 2022 "Opinions on promoting green development in the BRI" issued by four ministries), and association approaches (e.g., the December 2020 Green Development Guidance with the Traffic Light System published by BRIGC). Accordingly, the report first analyzes the financing needs for greening Pakistan's energy and transport sector, evaluates the state and role of green finance in the Pakistani, Chinese and international context, and finally develops relevant recommendations for green financing in CPEC based on this research.

The research benefited from numerous discussions with Chinese and Pakistani stakeholders on green finance, including with discussions with Habib Bank during the process of developing China's Green Development Guidance documents.

2. Financing for greening CPEC

Green financing is increasingly essential as Pakistan faces increased exposure to climate-induced risks. Not only is disaster resilience missing from Pakistan's climate change threat response, but there also seems to be an absence of any suitable global reparation or loss-and-damage mechanisms, further compounding the issues faced. According to preliminary estimates, the recent flooding in Pakistan has rendered homeless 33 million people, while causing USD30 billion worth of damage, which would take years to recover from.[2,3]

All of this is despite Pakistan contributing less than 1% to global greenhouse gas emissions.[4] The country also remains at the risk of more intense disasters down the road. Thus, there is an urgent need for green financing tools, guidelines, and initiatives, both to build Pakistan's threat response, as well as to scale up climate resilience in the absence of global reparation or loss-and-damage mechanisms. Following are some of the green financing developments in Pakistan that have taken place over the past few years:

Climate-induced disasters in Pakistan have contributed to average annual losses of USD3.8 billion over the last 20 years.[5] With the China Pakistan Economic Corridor (CPEC) being the flagship project of the Belt and Road Initiative (BRI) with total investment of USD62 billion in energy and infrastructure projects, it is imperative to align the financing needs of Pakistan under CPEC with its climate-related goals to adapt to, and mitigate, the climate-related threats that it is facing.[6]

Much of the initial investment under CPEC has come under environmentally harmful coal-based projects (USD6.73 billion investment in completed projects and USD5.36 billion investment in coal-based projects that are under construction).[7] Additionally, carbon dioxide emissions are estimated to be 51 million metric tonnes

annually for CPEC projects.[8] In order to ensure that investment under CPEC

[2] Shahzad, A. (2022). *U.N. Chief calls for 'massive' help as Pakistan puts flood losses at USD30 billion.* Reuters, 9 September. Available at: https://www.reuters.com/world/asia-pacific/un-chief-guterres-arrives-pakistan-support-flood-response-2022-09-09/. (Accessed 26 September 2022).

[3] Aljazeera (2022). *Pakistan PM decries climate carnage: 'Did not contribute to this'*, 24 September. Available at: https://www.aljazeera.com/news/2022/9/24/pakistan-pm-decries-climate-carnage-did-not-contribute-to-this. (Accessed 26 September 2022).

[4] Climate Watch. 2020. GHG Emissions. Washington, DC: World Resources Institute. https://www.climatewatchdata.org/countries/PAK?end_year=2019&start_year=1990

[5] Eckstein, D., Künzel, V. and Schäfer, L., 2021. Global climate risk index 2021. *Who Suffers Most from Extreme Weather Events*, pp.2000-2019. Page 13. https://germanwatch.org/sites/default/files/Global%20Climate%20Risk%20Index%202021_1.pdf

[6] Siddiqui, H., Scherzer, M. (2019). Pakistani Businesses Consider CPEC Projects Non-participatory. *Centre for International Private Enterprise,* November 7. Available at: https://www.cipe.org/blog/2019/07/11/pakistani-businesses-consider-cpec-projects-non-participatory/. (Accessed 26 September 2022).

[7] CPEC Authority, Ministry of Planning, Development and Special Initiatives. Available at: http://cpec.gov.pk/energy

[8] Uniyal, K. (2021). 'Greening the CPEC through the Chinese Vision of Ecological Civilization', in *Building Back A Better CPEC: Post-COVID Sustainable Recovery Perspectives for the China-Pakistan Economic Corridor.* Oxford University Silk Road Society: 2021, pp.9-12.

corresponds to international standards and best practices, in this section, we look at some of the green financing needs of Pakistan, and potential under CPEC to help Pakistan meet those needs. The following sections highlight selected tools that could be used to help Pakistan meet its green financing needs under CPEC.

Climate stimulus packages for flood recovery and building disaster resilience[9]

As part of the Covid-19 recovery of Pakistan, the World Bank announced a USD120 million loan in April 2021.[10] This helped Pakistan speed up its post-pandemic response and move on to the path of recovery and growth. As Pakistan recovers from the recent floods, there is a need for similar climate stimulus packages that, although not a part of the global loss-and-damage or reparation mechanisms, will help Pakistan recover from the widespread damage suffered. Such stimulus packages can be targeted under CPEC from the investment that has already been pledged (so far Pakistan has only received USD28 billion out of the total pledged investment of USD62 billion under CPEC).[11] Pledged investment in coal-based projects that have not yet undergone construction can be redirected to help achieve a people-focused recovery with the development of climate-resilient infrastructure and buildings. Not only would this help Pakistan recover from the effects of the flood, but it would also help Pakistan adapt to the threat of future flooding while reducing its own carbon footprint. Under the climate stimulus packages, the construction of dams, climate-proof roads and bridges, and impact assessment of high climate-risk areas and communities can be carried out. Health, education, agriculture, and human development would be specific areas of investment under the climate stimulus packages. Pakistan would also be able to prevent a coal lock-in, which could otherwise prove to be detrimental for the country in the long term. The climate stimulus packages can also help ensure that the post-flood recovery of Pakistan is not only sustainable, but also equitable, as the poor and marginalized communities have borne the brunt of the impact of the recent floods.

---

[9] Elmoussati, B. (2021). 'COVID Green Recovery Packages: the Sustainability Risks and Opportunities in People-focused Projects', in *Building Back A Better CPEC: Post-COVID Sustainable Recovery Perspectives for the China-Pakistan Economic Corridor.* Oxford University Silk Road Society: 2021, pp.13-17.

[10] Business Standard (2021). *World Bank to provide USD120 mn to Pakistan for its Green Stimulus initiative.* Business Standard, April 2. Available at: https://www.business-standard.com/article/international/world-bank-to-provide-120-mn-to-pakistan-for-its-green-stimulus-initiative-121040200008_1.html. (Accessed on 26 September 2022).

[11] CPEC Authority, Ministry of Planning, Development and Special Initiatives. Available at: https://cpec.gov.pk/news/123

Debt-for-environment swaps under CPEC[12]

Debt-for-environment swaps are recently gaining focus as a means of aiding heavily debt-ridden developing countries to focus on environmental and social management in return for debt relief. Debt-for-nature swaps and debt-for-climate swaps fall under the domain of debt-for-environment swaps. Pakistan remains among the most heavily indebted countries to China among countries that have joined the Belt and Road Initiative with debt of around USD30 billion owed as of September 2022.[13] Debt to China represents around 30% of the total debt of Pakistan. Under CPEC, debt-for-environment swaps can help reduce the financial burden of Pakistan while incentivising the enactment of environmental conservation measures, and nature-based solutions for its climate change adaptation drive. Nature-based solutions are ideal for debt-for-environment swaps as such incentives need to be oriented towards tangible results subject to easy verification. Debt-for-environment swaps also need to cater for social equity, the scale of the solutions, as well as the results achieved in terms of community adaptation, environmental conservation, and climate change mitigation. Afforestation, the revival of protected areas, and improving urban sanitation etc. are some of the key areas of focus that can present tangible results in return for Pakistan getting some of its CPEC debt written off. Initiatives such as the ten billion trees tsunami project, clean green Pakistan initiative etc. have already been geared towards making use of nature-based solutions. Workers can be paid to plant saplings, while engaging in plant care, the protection of forests, and firefighting activities etc. Such initiatives can also help expand jobs among the poor and marginalised communities. For example, the Khyber Pakhtunkhwa province of Pakistan generated 500,000 jobs in the billion tree tsunami programme.[14] Coal-retirement mechanisms under CPEC can also be made a part of debt-for-climate swaps. Other social criteria such as health, education, and social equality can also be incorporated as debt reduction facilitators within the purview of the debt-for-SDG swaps, for example, initiatives for the employment and diversification of women from traditional jobs to modern, higher value-added jobs can also be a means for debt reduction.

[12] Jeffery, A. (2021). 'Debt-for-Environment Swaps: the Path to a Fairer, Greener CPEC', in *Building Back A Better CPEC: Post-COVID Sustainable Recovery Perspectives for the China-Pakistan Economic Corridor.* Oxford University Silk Road Society: 2021, pp.18-22.

[13] Mangi, F., 2022. China's Funding to Pakistan Stands at 30% of Foreign Debt. Bloomberg, September 2. Available at: https://www.bloomberg.com/news/articles/2022-09-02/china-s-funding-to-pakistan-stands-at-30-of-foreign-debt. (Accessed on 26 September 2022).

[14] Jeffery, A. (2021). 'Debt-for-Environment Swaps: the Path to a Fairer, Greener CPEC', in *Building Back A Better CPEC: Post-COVID Sustainable Recovery Perspectives for the China-Pakistan Economic Corridor.* Oxford University Silk Road Society: 2021, pp.18-22.

Eco-Special Economic Zones/Green Special Economic Zones under CPEC[15]

Introduction of eco-special economic zones (SEZs) under CPEC is essential to ensure that the SEZs not only help scale up economic reforms, but also incorporate international best practices related to climate, environment, health, and other social criteria. Special Economic Zones are free-trade areas designed to attract investment, where the commercial laws of the area differ from the rest of the country. SEZs are vehicles for piloting reforms at a small-scale, as well as for creating employment. There are a total of 9 SEZs under CPEC, 4 of which are currently under construction while work on the rest has not yet started.[16] Economic activities in the SEZs need to be low carbon and should focus on the industrial decarbonisation of emission-intensive sectors. Use of renewables, energy audits, sustainable and resilient infrastructure including recycling systems, water re-use, as well as green buildings and energy efficient systems should be incorporated in the eco-SEZs. Moreover, eco-SEZs should have climate-friendly investments and incentives to generate green products, make use of circular economy principles, and have effective implementation of environmental laws and standards. Other incentives may include renewable portfolio standards and energy-efficiency standards, as well as incentives for making use of higher local green content in product development and packaging. There also need to be equal opportunities for women in traditionally male-dominated industries.   Eco-SEZs under CPEC would also present opportunities for transfer of technology and localization of industries, while joint ventures may be used to ensure that small businesses are robust enough to stay competitive.

Investments through foreign multilateral banks under CPEC in green transportation/green agriculture[17]

Foreign multilateral investments under CPEC in green transportation/green agriculture present an opportunity for Pakistan. For example, after the construction of a highway under CPEC, mobility for employment search has increased as people can now seek jobs from Quetta to Gwadar, thus highlighting the potential for green transportation investments under CPEC. Moreover, the need to mitigate debt sustainability and environmental issues arising out of the infrastructure projects under CPEC relay

[15] Lusted, M. (2021). 'Shaping Economic and Social Sustainability: the Future of Special Economic Zone Policy and Implementation in Pakistan', in *Building Back A Better CPEC: Post-COVID Sustainable Recovery Perspectives for the China-Pakistan Economic Corridor.* Oxford University Silk Road Society: 2021, pp.23-26.

[16] CPEC Authority, Ministry of Planning, Development and Special Initiatives. Available at: http://cpec.gov.pk/energy

[17] Coleman, C. (2021). 'Multilateral investment: a Sustainable Way Forward for CPEC?', in *Building Back A Better CPEC: Post-COVID Sustainable Recovery Perspectives for the China-Pakistan Economic Corridor.* Oxford University Silk Road Society: 2021, pp.27-31.

the potential for investments via multilateral institutions such as the Asian Development Bank (ADB) and the Asian Infrastructure Investment Bank (AIIB).

Furthermore, CPEC is moving towards sustainable agricultural growth. Pakistan faces an undersupply of essential commodities to feed its burgeoning population. Under CPEC, Pakistan can sign strategic agreements with multilateral institutions which address food security. For example, the plantation of rice is an area where there is a lot of potential of multilateral financing under CPEC. Agricultural demonstration farms have also been established where Pakistan has received a USD1bn grant from China.

Multilateral financing under CPEC has several advantages. With a rigorous framework, multilateral financing institutions would be more likely to engage with local communities in an extensive stakeholder engagement process. However, there remain issues with the 'Environmental Impact Assessment' (EIA) criteria used by the multilateral institutions to assess whether the project should be given the "go-ahead". All alternatives have often not been given due consideration, and project approval remains at the discretion of the multilateral institution.

Phase-out of coal plant investments under CPEC[18]

In 2021, Pakistan announced that it would scrap two coal-fired power plants with a total installed capacity of 2.6 GW under CPEC and replace them with hydro-power projects. The initial drive towards coal-based power projects under CPEC has led to excess installed capacity. This results in the government of Pakistan having to pay massive capacity payments, thus exacerbating the circular debt of the country. Moreover, there is also the risk of coal-based power plants becoming 'stranded assets'. Therefore, a long term move away from coal, and a transition towards renewables, seems the best solution. Thus, the debate on the phasing-out of coal-based projects under CPEC is gaining momentum. Recently, the government announced the conversion of the 300MW coal plant in Gwadar to a solar park.[19] As this move shows, there are ample opportunities for renewable energy investments under CPEC to phase-out Pakistani coal. The government should also incentivize private sector renewable energy investments while investments for phasing-out coal fired power projects from multilateral institutions under CPEC also remain a viable option.

[18] Yang, Y. (2021). 'The Role COVID-19 Recovery in Accelerating Pakistan's Coal Investment Phase-Out', in *Building Back A Better CPEC: Post-COVID Sustainable Recovery Perspectives for the China-Pakistan Economic Corridor.* Oxford University Silk Road Society: 2021, pp.32-35.

[19] Mustafa, K. (2022). *Solar plant to replace 300MW Gwadar coal power project.* The News, July 25. Available at: https://www.thenews.com.pk/print/976586-solar-plant-to-replace-300mw-gwadar-coal-power-project.(Accessed 26 September 2022).

3. Green financing guidelines with possible relevance for CPEC

Defining green financing and investment

Green financing serves to increase financial flows from public, private and not-for-profit sources to projects and activities that support "green" development objectives, while not harming broader sustainable development priorities. Green development objectives can include, for example, alignment with Paris goals to fight the climate catastrophe through adaptation and mitigation investments, nature-positive investments to improve biodiversity through ecosystem solutions or restoration projects, pollution reduction investments, and circular economy activities to reduce the utilization of resources. Examples of such investments include engagement in "green" energy, such as solar and wind, "green" transport, such as public transport, or sponge cities to adapt to climate change.

Green finance is part of sustainable finance, which can be understood as the process of taking due account of environmental, social and governance (ESG) considerations when making investment decisions in the financial sector, leading to increased longer-term investments into sustainable economic activities and projects. It has become a powerful movement led by regulators, institutional investors, and asset managers globally[20].

For financial institutions engaging in green finance, a key motivation is to reduce environmental and social risks, and simultaneously take up opportunities that bring both a decent rate of return and environmental benefit and deliver greater accountability (UNEP, 2022). For project developers, a key motivation is the availability of financial products from green financial institutions.

Green finance is often set in a broader green financial system that includes top-level and sector-level laws (e.g., climate laws, environmental impact assessment laws, energy laws), the financial system that is determined by the central bank, the banking regulator, the financial market regulators and actualized through financial institutions (e.g., banks, investors, insurance companies, development finance institutions) with a variety of instruments (e.g., bonds, credit, insurance, guarantees,...). Green financial systems vary between countries due to different development statuses of the various elements of the green financial system

[20] African Development Bank (AfDB), Asian Development Bank (ADB), European Bank for Reconstruction and Development (EBRD), Inter-American Development Bank (IADB), Islamic Development Bank (IsDB), World Bank Group and Asian Infrastructure Investment Bank (AIIB). (2021), *Joint Report on Multilateral Development Banks' Climate Finance 2020*.

(e.g., liquid green capital markets are a prerequisite for green bond issuances).[21]

Green financing can accordingly be promoted through changes in countries' regulatory frameworks, harmonizing public financial incentives, increases in green financing from different sectors, alignment of public sector financing decision-making with environmental considerations.

For accelerating the application of green finance for CPEC, a basic understanding of green finance frameworks relevant for China's overseas finance (particularly regarding the "Belt and Road initiative" (BRI)), relevant for Pakistan and relevant for broader development finance context is necessary.

Existing frameworks with potential relevance for green financing for CPEC

Various types of frameworks for green financing and investment have been developed by the CPEC members China and Pakistan, as well as on the international level. An analysis of these frameworks and developments can provide a relevant baseline for a green finance guideline for CPEC.

China's green finance environment

China has issued numerous green finance documents relevant for domestic and international finance. The following paragraphs analyze their development.

Domestic green finance[22]

China is a pioneer in using top-down green finance systems to guide and govern green investment and financial products. For domestic investment, China Banking and Insurance Regulatory Commission (CBIRC), People's Bank of China (PBOC), and National Development and Reform Commission of the People's Republic of China (NDRC) have published several documents providing "green project and industry lists" that contribute to green development. These include the CBIRC's "Green Credit Guideline" and other supporting documents (2012), NDRC's "Guidelines for Energy Efficiency Credit" (2015), "Green Industry Catalogue" (2019), PBOC's updated "Green Bond Endorsed Project Catalogue" (2021). Many of these government documents specify industries, projects and activities that are considered to contribute to a "green", low-pollution, and low-carbon development of China.

Belt and Road Initiative and overseas investment

For China's overseas engagement, particularly for the Belt and Road Initiative, China has developed important sets of green finance guidelines, opinions, and regulations. Already, the CBIRC "Green

[21] Nedopil, C. (2022), *Innovative Finance Towards Low Green House Gas (GHG) Emission and Climate Resilience Future*, G20, Bali, Indonesia.

[22] Nedopil, C. and Song, Z. (2023), *China Green Finance Status and Trends 2022-2023*, Green Finance & Development Center, FISF Fudan University, IISD, Shanghai.

Credit Guidelines" outlined specific projects and industries that are eligible to receive green credits, which can be applied for overseas finance. In 2017, the "Guidelines on Further Guiding and Regulating Overseas Investment" issued jointly by NDRC, MofCom, MOFA, and PBOC provided a differentiated classification of "encouraged, restricted, and prohibited projects." A "host country approach" was used to define which projects should be restricted, meaning China would not intervene to decide which activities are green, but rather the host country itself. As this "host country principle" led to specific financial risks should environmental considerations in the host country be insufficient to reduce environmental risks, the MEE, together with the NDRC, PBOC, CBIRC, and the CSRC, jointly launched "Guidance on promoting investment and financing to address climate change" in October 2020. This guidance mentioned that Chinese financial institutions are encouraged to support the low-carbon development in the countries of the Belt and Road Initiative and South-South cooperation and should facilitate the implementation of climate change mitigation/adaptation projects abroad. Financial institutions should also fulfill their social responsibility by effectively preventing and mitigating climate-related risks.

In December, 2020, the BRI International Green Development Coalition (BRIGC) released the landmark "***Green Development Guidance for BRI Projects Baseline Study Report***"[23] with support from the Ministry of Ecology and Environment, the NDRC, and others. The Guidance includes 9 recommendations and a "Traffic Light System" ("9+1"). The nine recommendations are, as follows:

- Address all phases of green overseas investments – from evaluation to management and reporting Recommendation
- Provide Exclusion Lists based on environmental criteria Recommendation
- Institutionalize independent Environmental Impact Assessments (EIAs), particularly for high-risk projects Recommendation
- Provide differentiated conditions for green and red projects Recommendation
- Demand an Environment and Social Management System from project owners and developers Recommendation
- Provide a grievance mechanism Recommendation
- Apply and integrate covenants Recommendation
- Provide public environmental reporting Recommendation

[23] Nedopil, C., Wang, Y., Xie, W., DeBoer, D., Liu, S., Chen, X., Li, Y., *et al.* (2020), *Green Development Guidance for BRI Projects Baseline Study Report*, International Belt and Road Initiative Green Development Coalition (BRIGC), Beijing.

- Accelerate international cooperation for the environment

The Traffic Light System provides a methodology to evaluate the environmental impact and benefits of projects into three categories encouraged (green), neutral (yellow) and restricted (red) (see Figure 1) based on three environmental criteria: pollution, climate change, and biodiversity.

- Red projects—projects requiring stricter supervision and regulation: Projects at risk of causing "significant and irreversible" environmental damage or major negative environmental impacts in one or more aspect of climate change mitigation, pollution prevention, and biodiversity protection. Red projects include coal-fired power, hydropower, petrochemical, and mining and metal smelting projects.
- Yellow projects—environmentally neutral projects with moderate impacts: Projects in this category "Do No Significant Harm" (DNSH) to any environmental aspect, and any residual environmental harm can be mitigated by the project itself through affordable and effective measures within reasonable boundaries. Yellow projects include waste-to-energy projects and urban freight transportation with emission standard above Euro IV/national IV standards (or similar local applicable one).
- Green projects—encouraged projects: Projects in this "encouraged category" have no significant negative impact on any environmental aspect of climate change mitigation, pollution prevention, and biodiversity protection, and positively contribute to at least one environmental aspect, particularly if they support international environmental agreements and conventions. Projects such as renewable energy development and utilization (solar and wind power plants, etc.) fall into this category.

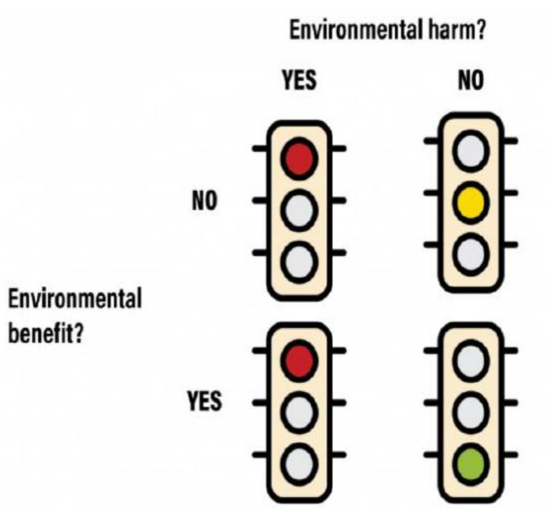
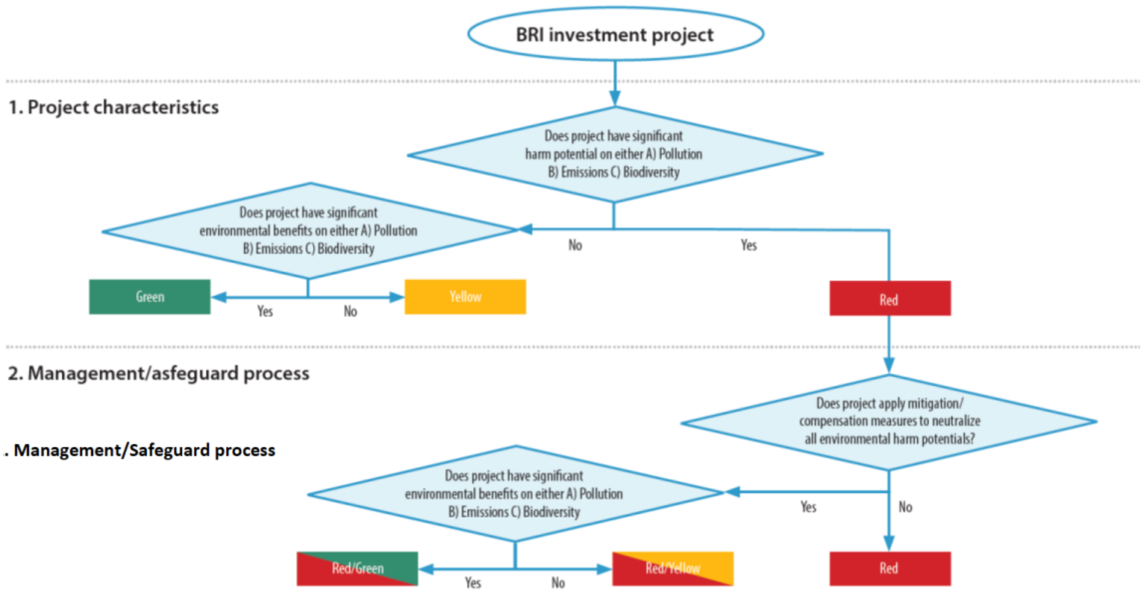


Figure 1: Traffic Light System for BRI projects (Source: Wang et al., 2021)[24]

To ensure scientific, effective, and operable project categorization, a two-tiered system is proposed to evaluate the direct impact on and contribution to environmental objectives (the first step), and the availability of “mitigation” measures through environmental management, for example, by applying safeguards (second step). Accordingly, the system allows for projects categorization to be adjusted (upgraded or downgraded): If the project adopts sufficient environmental management measures to mitigate negative environmental impact and promote the realization of environmental objectives, it can be upgraded after rigorous evaluation (see Figure 2).



[24] Wang, Y., Nedopil, C., Xie, W., DeBoer, D. and Liu, S. (2021), *Green Development Guidance for BRI Projects Phase II Task 1 – Application Guide for Enterprises and Financial Institutions*, International Belt and Road Initiative Green Development Coalition (BRIGC), Beijing.

Since its publication, The Green Development Guidance with its 9+1 recommendations and traffic light system has been promoted by various entities: the BRIGC, together with Chinese and international partners such as WRI, and ClientEarth, has developed an implementation guide[26] It specifies implementation measures to the three main BRI stakeholders of enterprises, financial institutions, and regulators. The Application Guide further recommends the roadmap and establishes a shared language about environmental risks and risk management across these stakeholders, and the work on the traffic light system continues.

In addition to top-down green finance development, China also supports the sector-led ***Green Investment Principles*** for the Belt and Road (Green Investment Principles, GIP), jointly published by the China Green Finance Committee and the City of London. By December 2021, the GIP had 41 signatories and 13 supporters from 15 countries and regions around the world. It had also opened its first local chapter in Astana, Kazakhstan in 2021.[27]

The GIP includes seven principles at three levels, i.e., strategy, operations, and innovation:

- Principle 1: Embedding sustainability into corporate governance
- Principle 2: Understanding Environmental, Social, and Governance Risks
- Principle 3: Disclosing environmental information
- Principle 4: Enhancing communication with stakeholders
- Principle 5: Utilizing green financial instruments
- Principle 6: Adopting green supply chain management
- Principle 7: Building capacity through collective action

Principle 1 and Principle 2 are designed to encourage signatories to incorporate sustainability and ESG factors into corporate strategies and management systems, aiming to call for implementation starting from the highest level and throughout the whole organization whenever possible. Principle 3 and

[25] Wang, Y., Nedopil, C., Xie, W., DeBoer, D. and Liu, S. (2021), *Green Development Guidance for BRI Projects Phase II Task 1 – Application Guide for Enterprises and Financial Institutions*, International Belt and Road Initiative Green Development Coalition (BRIGC), Beijing.

[26] Wang, Y., Nedopil, C., Xie, W., DeBoer, D. and Liu, S. (2021), *Green Development Guidance for BRI Projects Phase II Task 1 – Application Guide for Enterprises and Financial Institutions*, International Belt and Road Initiative Green Development Coalition (BRIGC), Beijing.

[27] Nedopil, C., Cheng, L., Chen, Y., Li, P. and Fan, D. (2022), *Accelerating Green BRI Investments: Alignment and Implementation of the Green Development Guidance for BRI Projects (GDG) and the Green Investment Principles for the Belt and Road (GIP)*, International Belt and Road Initiative Green Development Coalition (BRIGC), Beijing.

Principle 4 focus on communication with stakeholders at the operational level. Specific measures that signatories could take to contain environmental and social risks include environmental risk analysis, information sharing, and conflict resolution mechanisms. Principles 5 to 7 are set to encourage signatories to utilize cutting-edge green financial instruments and green supply chain practices, and to improve organizational capacity through knowledge sharing and collective actions.

To integrate the GIP and the Green Development Guidance, a report was published by the BRIGC together with the GIP to accelerate the use of green finance for the Belt and Road Initiative (Nedopil et al., 2022)

The Green Development Guidance also served as a basis for three new policy documents issued in 2021 and 2022 that explicitly encouraged the integration of biodiversity, climate, and pollution control throughout all investment phases based on Chinese or international instead of host country standards: the Green Development Guidelines for Foreign Investment and Cooperation, issued jointly by MOFCOM and MEE in July 2021, the Guidelines for Ecological Environmental Protection of Foreign Investment Cooperation and Construction Projects, also issued by MOFCOM and MEE in January 2022, and the Opinions on the Joint Implementation of Green Development in the Belt and Road Initiative, issued by NDRC, MOFCOM, MEE, and Ministry of Foreign Affairs in March 2022.

In 2022, the Ministry of Environment and Ecology (MEE), together with the Ministry of Commerce (MOFCOM), issued the Guidelines for Ecological and Environmental Protection in Overseas Investment and Cooperation Construction Projects (MEE, 2022). The Guidelines describe how companies should integrate environmental considerations along the whole project lifecycle – from project planning to construction, management, de-construction, and information disclosure. In particular, Chinese companies should adopt international standards or China's stricter standards for environmental protection if they operate in host countries with weak environmental governance. Chinese firms must improve their environmental management systems regarding international practices and appoint special personnel responsible for ecological protection. They are encouraged to engage in consulting services with familiarity with domestic and foreign environmental laws and global environmental capability to support ecological evaluations. Chinese firms are encouraged to reduce their environmental impacts regarding three major ecological dimensions and pollution to control; example, waste, water, noise, dust vibration, solid waste, and other pollutant discharge should be maintained and minimized. Companies should "make a positive contribution to addressing climate change," for example, by preferring low-carbon projects (e.g., for energy projects) and in "green supply chain management and green procurement." They should carry out a biodiversity survey before the construction of a project, and – if the results show high biodiversity risks, companies should consider re-selecting the site.

Figure 3 shows how these policies have moved from a "host-country" to an "international standards approach" regarding environmental risk management when financing overseas projects.

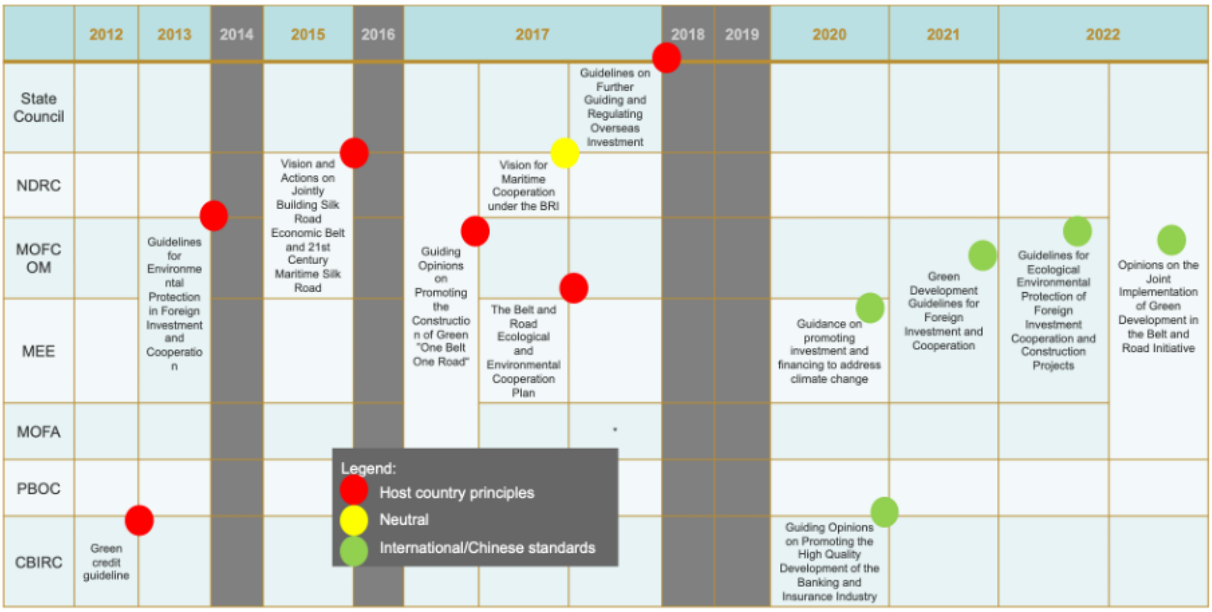


Figure 3: Chinese government-issued guidances and opinions relevant for greening finance in the Belt and Road Initiative distinguishing between "host country principle" and "international/Chinese standards" for environmental protection (Source: Nedopil, 2022)

Green Financing schemes in Pakistan

Financing Scheme for Renewable Energy, 2016 – State Bank of Pakistan[28]

Given the threat of climate change and the need for scaling up access to renewable energy, the State Bank of Pakistan introduced a financing scheme for renewable energy in 2016, offering incentives for both large and small-scale renewable energy projects. Projects including wind, solar, hydropower, bagasse, bio-fuels, geothermal etc. of between 1 MW - 50 MW were eligible. The maximum refinancing allowed under the scheme was Rs. 6 billion (about USD 23 million) for a single renewable project. The terms and conditions included refinancing available for 12 years at an end-user rate of 6%. The process of finalizing applications was set at 3 months under this scheme. The scheme was extended in June 2019 (see "Revised Financing Scheme for Renewable Energy, 2019" below).

[28] Infrastructure, Housing and SME Finance Department, 2016. *Revised SBP Financing Scheme for Renewable Energy.* State Bank of Pakistan, Circular No. 3 of 2016, June 20. https://www.sbp.org.pk/smefd/circulars/2016/c3.htm

Green Banking Guidelines, 2017- State Bank of Pakistan[29]

The State Bank of Pakistan introduced its **Green Banking Guidelines** in 2017 to mitigate banks' threats from climate related risks and directed banks to engage in green financing to enhance climate resilience and improve resource efficiency. Moreover, with the increased probability of large financial defaults arising directly out of climate related threats, the State Bank of Pakistan requires effective identification, monitoring, reporting and mitigation of environmental risks from banks and development finance institutions. The time for the completion of the guidelines was 12 months. The key features of the guidelines include:

- Integration of environmental considerations as essential aspect of the banks' activities.
- Establishment of internal procedures to identify, assess, mitigate, monitor, and report on environmental risks.
- Scaling of green finance for renewable energy, improving energy efficiency and promoting other environmentally friendly practices.
- Mitigation of adverse environmental impacts arising out of banks' own operations.
- Periodic review and reporting of banks' overall environmental risk.

The guidelines also require banks to establish a **green banking office** headed by a green banking manager to ensure the compliance of the bank with the guidelines. The green banking office would also be responsible for the introduction of green products and services. With respect to environmental risk management, the guidelines include the following aspects:

- The environmental risk management should be forward looking and make use of contingency planning. It should also be applicable to both current and new exposures, with differentiated identification of risks based on spatial and topographical factors.
- Clients' compliance with the legal and regulatory requirements related to environment and climate protection should be ensured, and non-cooperative clients should be assigned higher risk ratings.
- Banks should develop assessment criteria detailing both the client's environmental risk based on past record, as well as the environmental risks

[29] Infrastructure, Housing and SME Finance Department, 2017. *Green Banking Guidelines.* State Bank of Pakistan. Green Banking Guidelines, Circular # 08 of 2017, October 9. sbp.org.pk/smefd/circulars/2017/C8-Annex.pdf

pertaining to the specific transaction.

Environmental and Social Risk Management (ESRM) Policy and Procedures, 2018 – State Bank of Pakistan[30]

Since adherence to green banking guidelines for banks (above) was not declared to be mandatory, and these guidelines were not applicable to microfinance institutions, the State Bank of Pakistan rolled out the environmental and social risk management policy and procedures in 2018 to complement the green banking guidelines. Recognizing that the responsibility for the mitigation of the environmental and social risks from financing activities rests with the financing institutions, the policy called for the development of an environmental and social management system (ESMS) for all financial institutions which would incorporate screening procedures for the identification, monitoring and mitigation of environmental and social risks. Furthermore, financial institutions would be considered for the State Bank of Pakistan line of credit (LOC) under three classifications: high-risk, moderate-risk, and low-risk.

These ratings would be based on the risk screening of each financial institution including factors such as the nature and financing terms of the products and services offered, a holistic evaluation of the overall portfolio risk, and the institutional capacity to assess and mitigate risks. The system would also have an accountability and redress system for grievance handling (see

[30] State Bank of Pakistan, 2018. *Financial Inclusion and Infrastructure Project Environment and Social Risk Management and Procedures,* June 2018. https://www.sbp.org.pk/acd/2018/C2.pdf

Table 1).

Table 1: Key considerations for financial institution environmental and social risk rating. (Source – SBP Financial Inclusion and Infrastructure Project Environment and Social Risk Management Policy and Procedures, 2018)

E&S Risk Rating	Nature of financing to final borrowers (tenor, amount) – indicative	Sectors and locations	Activities on SBP List of Excluded Activities	PFI's Systems and Capacity for E&S Risk Management
RR-1 (High Risk)	Longer-term loans (e.g., over 36 months); average loan size over Rs.120,000	Substantial part of PFI's portfolio is in higher risk sectors. Highly sensitive locations (e.g., densely populated urban areas, industrial zones with high cumulative impacts of pollution etc.)	PFI's portfolio includes some exposure to such activities that can be eliminated over a reasonable period of time	Overall weak E&S systems and capacity
RR-2 (Medium Risk)	Medium-term loans (e.g., between 12 and 36 months); average loan size between Rs.120,000 and Rs.100,000	Most of PFI's portfolio is in sectors not considered high risk	PFI's portfolio includes no exposure to such activities	Overall moderate to strong E&S systems and capacity
RR-3 (Low Risk)	Shorter-term loans; average loan size below Rs. 100,000	Most of PFI's portfolio is in lower risk sectors	PFI's portfolio includes no exposure to such activities	E&S systems and capacity are well in excess of minimum required capacity

Refinancing Facility for Modernization of SMEs, 2019 – State Bank of Pakistan[31]

The State Bank of Pakistan introduced a refinancing facility for the small and medium enterprises in 2019. Borrowers with a turnover of up to Rs. 800 million and with less than 250 employees were eligible. Financing is available under this scheme for 10 years at an end-user rate of 6% for the purchase of plant/machinery, for civil works, and for the purchase of generators (maximum 500 kVA). However, financing would not be available for the purchase of land or for the construction of buildings.

Revised Financing Scheme for Renewable Energy, 2019 – State Bank of Pakistan[32]

The State Bank of Pakistan's financing scheme for renewable energy (above) was extended on June 30, 2019 for a further 3 years. The scheme was further subdivided into 3 categories depending on the type of users. For category 1 users, the maximum loan amount was Rs. 6 billion (about USD23 million) for renewable energy projects of between 1 MW and 50 MW. For renewable energy projects of less than 1 MW (category 2 users), the maximum refinance was capped at Rs. 400 million (about USD 1.6 million), while category 3 users were wind and solar vendors/suppliers certified under AEDB regulations for whom the maximum loan amount was Rs. 1 billion. The end-user rate was kept at 6% for all categories. However, the tenor of financing was 12 years for category 1 users, but 10 years for both category 2 and category 3 users. Rs. 81 billion (about USD313 million) was outstanding in the financing scheme as of June 2022.[33]

Green Bond Guidelines, 2021 - Securities and Exchange Commission of Pakistan[34]

The Securities and Exchange Commission of Pakistan introduced the green bond/sukuk guidelines in 2021. The guidelines aim to introduce financial instruments that contribute positively to the environment and help combat climate change. To classify as a green bond, the proceeds must be utilised for financing renewable energy, improving energy efficiency, controlling pollution, protecting the environment etc. The green bonds would be assigned a credit rating after certification and verification against a green assessment benchmark. The potential issuer would be required to disclose environmental sustainability

---

[31] State Bank of Pakistan, 2019. *Refinancing Facility for Modernization of Small and Medium Enterprises (SMEs).* https://www.sbp.org.pk/Incen-others/pdf/Modernization.pdf

[32] Infrastructure, Housing and SME Finance Department, 2019. State Bank of Pakistan. *Circular No. 10, 2019.* https://www.sbp.org.pk/smefd/circulars/2019/C10.htm

[33] Infrastructure, Housing and SME Finance Department, 2019. State Bank of Pakistan. *Circular No. 10, 2019.* https://www.sbp.org.pk/smefd/circulars/2019/C10.htm

[34] Securities Market Division, 2021. *Guidelines-Issuance of Green Bonds/Sukuks.* Securities and Exchange Commission of Pakistan. https://www.secp.gov.pk/document/green-bonds-guidelines/?wpdmdl=42537&refresh=60cc5ab00db441624005296

objectives of the project, how any potential adverse impacts would be mitigated, how the funds would be utilized, and a system of checks and balances to ensure the funds would be used for the purpose that they are meant for. The face value of the sukuk/green bond is Rs. 5000 (about USD19), which is also the minimum amount required for the subscription of the sukuk/green bond. The Water and Power Development Authority introduced its first green bond under the guidelines. The Indus Bond was floated to raise USD500 million at a 7.5% interest rate. The bond was massively oversubscribed as the proceeds from floating the green bond were USD3 billion.[35]

International Green Development Finance Practices

Financial institutions, such as private financial institutions (FIs) and national and bi-/multilateral development finance institutions (DFIs) are engaged in large-scale overseas infrastructure investments with significant environmental impacts. Besides adhering to national regulation, many FIs and DFIs have developed their own policies, safeguards, and practices to minimize environmental harm and risk. These developments have become necessary when local regulations in host countries are insufficient to address environmental risks, external stakeholder pressure (e.g., from shareholders or international customers), or internal stakeholder pressure (e.g., management, staff). Two practices for financial institutions, the *Equator Principles (EP)* for private financial institutions and *the Five Voluntary Principles for* DFIs are considered most developed and widely applied.

Equator Principles

The most complete framework on environmental and social risks developed and applied by financial institutions is the *Equator Principles (EP) (Equator Principles, 2020)* . Since its establishment in 2003, over 100 private institutions from 37 developing and developed countries have become members of the EP. 26 The EP was updated in July 2020 and applied globally and to all industry sectors. It addresses particularly project finance, project-related corporate loans, bridge loans, and project-related acquisition finance. The EP covers 10 principles:

1. Projects are classified in three categories:
    a. Category A with potential significant adverse environmental and social risks and/or impacts that are diverse, irreversible, or unprecedented.
    b. Category B with potential limited adverse environmental and social risks that are generally site-specific and largely

[35] Hasnain, K. (2021). *Wapda floats first green Eurobond for USD500m.* Dawn News, May 28. Available at: https://www.dawn.com/news/1626110. (Accessed 26 September 2022).

reversible and readily addressed through mitigation measures.

   c. Category C with minimal or no adverse environmental and social risks. According to this categorization a more or less stringent application of the other nine principles is required.

2. Environmental and Social Assessment to be conducted by the client, including measures to minimize, mitigate, and/or compensate for negative impacts. This includes a Climate Change Risk Assessment:
   a. For all Category A and, as appropriate, Category B projects, including consideration of relevant physical risks as defined by the Task Force on Climate-Related Financial Disclosures (TCFD).
   b. For all projects in all locations when Scope 1 and Scope 2[27] emissions are expected to be more than 100,000 tonnes of CO_2-equivalent annually. Consideration must be given to climate transition risks and an alternatives analysis to reduce greenhouse gas emissions.
3. Application of Environmental and Social Standards with the application of IFC Environmental and Social Performance Standards and World Bank Environmental, Health, and Safety (EHS) Guidelines for countries with weaker local regulations based on an independent environmental and social consultant.
4. Ongoing implementation of Environmental and Social Management Plan (ESMP) for Category A and B projects.
5. Stakeholder engagement for all Category A and B projects, a requirement for the financial institution to require the client to demonstrate effective stakeholder engagement on an ongoing basis in a structurally and culturally appropriate manner.
6. Establishment of grievance mechanisms for all Category A and, as appropriate, Category B projects.
7. The requirements for independent review for Category A and B projects.
8. The integration of covenants for financial institutions to have remedies to address shortcomings of their clients in environmental protection, including decommissioning of facilities. Covenants are required for Category A and B projects.
9. Independent monitoring and reporting throughout the life of the loan for Category A and, as appropriate, for Category B projects.
10. Reporting and transparency that includes online publication of the following:
    a. Summary of the Environment and Social

Impact Assessment (ESIA), including climate change risks and impacts
b. Greenhouse gas (GHG) emission levels on an annual basis.

IDFC Five Voluntary principles

The Five Voluntary Principles were adopted by members of International Development Finance Club (IDFC), including China Development Bank, to address climate change and implement SDGs. By September 2020, over 48 financial institutions, including 23 bilateral, regional, and national development banks, as well as 13 commercial financial institutions were part of the Initiative (BRIGC, 2020).

1. Commit to climate strategies: Be strategic when addressing climate change by reflecting institutional commitments in strategic priorities, policy commitments, and targets. This enables the integration of climate change considerations in a financial institution's lending and advisory activities over time.
2. Manage climate risks: Be active in understanding and managing climate risk in assessing portfolios, working with clients to determine appropriate measures for building resilience to climate impacts and improving the long-term sustainability of investments.
3. Promote climate-smart objectives: Identify instruments, tools, and knowledge on how best to overcome risks and barriers for low-carbon and resilient investments. This includes mobilizing and catalyzing additional financing and developing specialized financing vehicles/products such as green bonds, risk-sharing mechanisms, and blended finance. Engage clients and other stakeholders (e.g., rating agencies, accounting firms) on climate change risks and resilience, and share lessons of experience to further mainstream climate considerations into activities and investments.
4. Improve climate performance: Set up operational tools to improve climate performance in all activities. Monitor indicators tied to climate change priorities, including greenhouse gas (GHG) emission reporting, lending, and investment, climate-conscious asset allocations, and the institution's own climate footprint.
5. Account for climate action: Be transparent and report, wherever possible, on the climate performance of your institution, including increases in financing of clean energy, energy efficiency, climate resilience, or other climate-related activities and investments. Transparently report the climate footprint of the institution's own investment portfolio, and how the institution addresses climate risk.

OECD Responsible Business Conduct (RBC) and others

The OECD published several guidelines and policy briefs on Green Finance to scale up investment in technologies, infrastructure, and companies to transition to a low-carbon, climate-resilient, and resource-efficient economy. OECD's Responsible business conduct (RBC) sets out an expectation that all businesses – regardless of their legal status, size, ownership, or sector – avoid and address negative impacts of their operations, while contributing to sustainable development in the countries where they operate. The OECD Guidelines for Multinational Enterprises (OECD Guidelines) are the most comprehensive international standard on RBC. The OECD Guidelines reflect the expectation from governments to businesses on how to act responsibly. They cover all key areas of business responsibility, including human rights, labour rights, environment, bribery, consumer interests, as well as information disclosure, science and technology, competition, and taxation.

United Nations Global Compact

Lastly, the United Nations Global Compact is a call to companies to align on a voluntarily basis their strategies and operations with universal principles on human rights, labour, environment, and anti-corruption. The Ten Principles of the United Nations Global Compact are derived from the Universal Declaration of Human Rights, the International Labour Organization's Declaration on Fundamental Principles and Rights at Work, the Rio Declaration on Environment and Development, and the United Nations Convention Against Corruption.

The UN Global Compact has Ten Principles, some of which focus specifically on the environment:

- Principle 1: Business should support and respect the protection of internationally proclaimed human rights;
- Principle 2: make sure that they are not complicit in human rights abuses;
- Principle 3: Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining;
- Principle 4: the elimination of all forms of forced and compulsory labour;
- Principle 5: the effective abolition of child labour;
- Principle 6: the elimination of discrimination in respect of employment and occupation;
- Principle 7: Business should support a precautionary approach to environmental challenges;
- Principle 8: undertake initiatives to promote greater environmental responsibility;
- Principle 9: encourage the development and diffusion of environmentally friendly technologies;
- Principle 10: Business should work against corruption in all its forms, including extortion and bribery.

4. Accelerating green financing for CPEC

Foundational principles

Pakistan has significant investment needs and opportunities in green and resilient infrastructure, financial markets, and technical capacity. While China's engagement in Pakistan through CPEC is significant, Pakistan and Chinese stakeholders could further benefit from international collaboration to mobilize higher levels of finance, investments, and technical capacity for an accelerated green transition of Pakistan.

One important avenue to mobilize finance for Pakistan's green transition for all involved parties are common and interoperable frameworks on green finance. Such frameworks are the foundation for defining eligible projects (i.e., definition of "green"), for building consensus on environmental risk management during project design and implementation, as well as for reporting and public participation. By building on relevant Chinese, Pakistani and international standards described above, the CPEC Green Finance Guidelines build a common ground green finance framework that allows involved financial parties to identify, manage and report on environmental risks and opportunities.

While various stakeholders strive to contribute to the green transition of CPEC and Pakistan in specific sectors (e.g., energy, transport), the principle of the CPEC Green Finance Guidelines is to be open to all technologies, projects and financing instruments. It therefore does not prescribe any specific technologies (e.g., solar), or financing instruments (e.g., project finance). Rather it aims to be adaptable to the specific needs and circumstances in different geographies and social groups in Pakistan.

Accordingly, the CPEC Green Finance Guidelines are built on two main foundational principles:

1. **Inclusivity** of Chinese, Pakistani and international good practices of green finance to be attractive for all types of investors and enable broad collaboration, which allows for broad mobilization of finance
2. **Openness** for technologies and financing instruments to accommodate specific needs and circumstances of Pakistan's diverse people and regions.

CPEC Green Financing Guideline

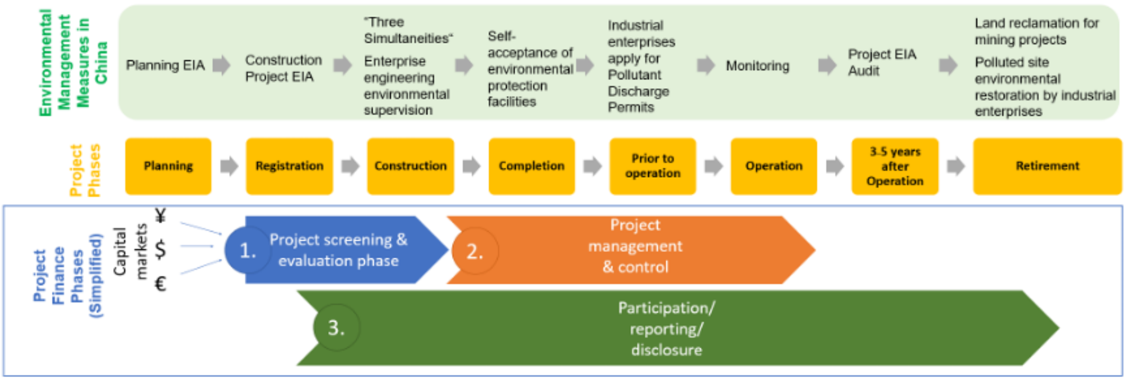
Based on these principles, the green finance guidelines for CPEC aims to

- accelerate the application of green finance and investments according to the Green Development Guidance of the BRIGC that involves the
    - 9 recommendations for greening the BRI
    - 1 traffic light system to evaluate projects according to their environmental impacts

- strive to implement and uphold the 7 principles of the Green Investment Principles for Belt and Road.
- uphold the environmental laws and green finance principles of Pakistan
- strive apply international good practices in development finance and business operations

This leads to the following recommendations for the CPEC Green Financing Guidelines

Recommendation 1— For project finance, green investment practices address all project phases: To accelerate green overseas investments, environmental concerns during the whole project lifecycle must be addressed. The project life cycle includes multiple phases. For investors the phases can be divided into project screening and evaluation, project monitoring and control, and public participation—reporting and information disclosure. Engaged stakeholders should take responsibilities to enhance the green development of project throughout the lifecycle.



Note: EIA = environmental impact assessment; the "Three Simultaneities" refers to the China's requirement that pollution prevention facilities in construction projects should be designed, constructed and put into use at the same time as the main project.

Recommendation 2—Exclusion List[36]: Agree on an exclusion list of environmentally harmful projects that must not receive investment in CPEC. Projects on Exclusion Lists include those

[36] The Exclusion List is different from the red categorization of projects.

that have severe and irreversible negative impacts on ecological development goals without feasible possibilities for mitigation.

Recommendation 3 - Accelerate green investment: Financial institutions, developers, and regulators should focus on developing green investment opportunities and strive to prefer green investments over other investments according to local conditions. such green investments could be evaluated according to the Traffic Light System of the BRIGC Green Development Guidance.

Recommendation 4—Environmental Impact Assessment: For projects, project developers must obtain an independent Environmental Impact Assessment (EIA) for each project, which should be overseen by financial institutions involved in project finance. According to Equator Principles, low-risk projects require at least a locally required EIA. For medium- and high-risk projects, the standards are more stringent and should be compatible with international best practice (e.g., World Bank Environmental and Social Standards [ESS] or International Finance Corporation [IFC] Performance Standards), which include disclosure and public participation and industry-specific EIAs.

Recommendation 5 — Differentiated and risk-adjusted financing conditions and green financial instruments: Financial institutions consider environmental risks in their financing conditions (i.e., better financing conditions and fast-track approval for green projects, restraining the approval for red projects). Financial institutions should also aim to offer - in collaboration with policy and development financial institutions - a variety of instruments to allow for risk mitigation and improve risk-adjusted returns (e.g., bonds, facilities, commercial guarantees, insurances).

Recommendation 6—Environment and Social Management System: Financial institutions require an Environment and Social Management System (ESMS) from their clients for all medium- and high-risk projects. The ESMS includes environmental (and social) mitigation measures that are measurable and need to be reported at least every six months to the financial institution.

Recommendation 7—Grievance redress mechanism: Financial institutions provide an easy-to-access and transparent grievance redress mechanism for people and NGOs that are potentially negatively affected by projects throughout the project phases, starting during the project evaluation. Contact information is made readily available for affected persons, NGOs, and others who wish to contact the financial institution to express concerns or objections to a new or existing project in the institution's portfolio. The grievance redress mechanism must be available in local language(s).

Recommendation 8—Covenants: Financial institutions include covenants in their investment agreements that allow them to work with clients to rectify breach of environmental and social agreements and, if need be, to exercise remedies, including calling events of default.

Recommendation 9—Public environmental reporting: Financial institutions provide independent reporting on the environmental performance of projects in their portfolio, including details on emissions, pollution, and biodiversity targets and impact; risk management; strategy; and governance. They use both required and applicable internationally recognized standards.

Recommendation 10: Adopting green and circular supply chain management: Supply chains should support green development patterns with low carbon footprint, no negative biodiversity impact, and no pollution, while ideally a circular supply chain management should be envisaged to not only reduce, but eliminate waste and maximize resource utilization, recycling, and re-use.

Recommendation 11—International cooperation: Financial institutions can share environmental data with relevant global authorities to support global data repositories on climate and biodiversity. For example, the Equator Banks share both climate and biodiversity data of their investments.

Recommendation 12 - Building capacity through collective action: Capacity building on environmental (and social) risk evaluation, risk management and relevant international reporting should be strengthened through international collaboration and digital and offline knowledge sharing for financial institutions, policy makers and developers, as well as affected communities.