PARIS ALIGNMENT OF EXPORT CREDIT AGENCIES

Case study #8: South Korea (Korea Trade Insurance Corporation and the Export-Import Bank of Korea)

Laila Darouich, Sherri Ombuya,
Igor Shishlov, Annika Wallengren

FREIBURG, GERMANY, 09.05.2023

Perspectives Climate Research

Perspectives Climate Research gGmbH (PCR) is an independent and internationally active research company based in Freiburg, Germany. PCR conducts research for both governments, international organizations, non-governmental organizations and the private sector maintaining high methodological standards. As the research branch of the renowned consultancy Perspectives Climate Group, PCR has extensive expertise in political science, economics and climate science and works on informing international climate policy as well as UNFCCC negotiations.

Authors

This study was led by Laila Darouich and co-authored by Sherri Ombuya, Igor Shishlov, and Annika Wallengren (Perspectives Climate Research)

Acknowledgements

The authors would like to thank SFO°C for their consideration, valuable comments as well as detailed and constructive discussions. Views expressed in this study are solely of Perspectives Climate Research and may not reflect the views of organizations that provided inputs and comments.

Disclaimer

Photography

Cover photo by Mimadeo on **iStock**

Photograph on page 7 by Yangna on **iStock**

Photograph on page 8 by Martin Bennie on **Unsplash**

Design and layout

Beatrice King

Perspectives Climate Research
Hugstetter Str. 7
79106 Freiburg, Germany
info@perspectives.cc
www.perspectives.cc

Table of Contents

Key Messages **4**

Key recommendations for the South Korean government **5**

1. Introduction **5**

2. Officially supported export finance in South Korea **8**

2.1. The role of exports in the South Korean economy 8

2.2. Export-Import Bank of Korea (KEXIM) 8

2.3. Korea Export Insurance Corporation (K-Sure) 9

2.4. Overview of South Korean export credit agencies 10

3. Climate-related policies in officially supported South Korean export finance **11**

4. Assessment of K-Sure and KEXIM's alignment with the Paris Agreement **13**

4.1. Dimension 1: Financial and non-financial disclosure and transparency 14

4.2. Dimension 2: Ambition of fossil fuel exclusion or restriction policies 17

4.3. Dimension 3: Climate impact of and emission reduction targets for all activities 19

4.4. Dimension 4: Climate finance: Positive contribution to the global climate transition 20

4.5. Dimension 5: Engagement - Outreach and 'pro-activeness' of ECAs and their governments 23

5. Conclusions and recommendations **25**

6. References **27**

Key Messages

- Korea Trade Insurance Corporation (K-Sure) and the Export-Import Bank of Korea (KEXIM)[1], the official Export Credit Agencies (ECA) of South Korea, were assessed with regards to their alignment with the Paris Agreement across five dimensions using the methodology developed by Perspectives Climate Research. Overall, K-Sure and KEXIM were rated with **'Unaligned' and therefore urgently need to speed up the progress towards aligning their activities with the Paris Agreement** (assessment score 0.27/3.00 for both ECAs).

- Both K-Sure and KEXIM were rated as 'Unaligned' across most of the 18 questions within the five assessment dimensions. However, in the transparency dimension, both scored just below 'Some Progress', **thanks to their initial efforts in monitoring and reporting Scope 1 and Scope 2 emissions**. Yet, a lot of work remains to be done to further improve transparency of both ECAs particularly with regards to Scope 3 emissions, which usually account for the largest share of GHG emissions from an ECA.

- South Korea has stopped public support for overseas coal-fired power plants but has **no policy for its ECAs to holistically exclude or at least limit support for oil and gas value chains**, which was up to 13 times higher in the last 10 years than support for coal before the ban.

- Compared to other G20 countries, South Korea **significantly supports fossil fuel activities (mostly oil and gas) overseas through its ECAs** and is therefore one of the main laggards in the Paris alignment of the export finance system. Continued support to fossil fuel investments is **incompatible with the objectives of the Paris Agreement** and should therefore be urgently ceased following the examples of such countries as France and the UK.

- **Climate finance**, such as the support for renewable energy, is **negligible in both ECAs' portfolios** and must be ramped up to ensure that they contribute to the ecological transition rather than slow it down. Introducing effective incentive mechanisms and price discrimination tools across the portfolio can help steer Korean exporters from carbon-intensive to climate-friendly activities.

- At the international level, **South Korea is not a signatory of the Glasgow Statement on international public support for the clean energy transition** and did not make commitments to phase out support to fossil fuels except for coal. Moreover, according to the information available, Korean ECAs do not appear to be working to any significant extent with national exporters to transform fossil fuel-related value chains, incentivise low GHG emissions exports and ultimately achieve Paris Alignment.

Assessment dimension	Weight	Description	Score K-Sure	Score KEXIM
1. Transparency	0.2	Financial and non-financial disclosures	0.50/ 3.00	0.50/ 3.00
2. Mitigation I	0.4	Ambition of fossil fuel exclusion or restriction policies	0.33/ 3.00	0.33 / 3.00
3. Mitigation II	0.2	Climate impact of and emission reduction targets for all activities	0.00 / 3.00	0.00 / 3.00
4. Climate finance	0.1	Positive contribution to the global climate transition	0.00 / 3.00	0.00 / 3.00
5. Engagement	0.1	Outreach and 'pro-activeness' of the ECA and its governments	0.33/ 3.00	0.33/ 3.00
Assessment outcome:		**Unaligned**	0.27/ 3.00	0.27/ 3.00

[1] The assessment boundary comprises South Korean government policy for K-SURE and KEXIM as well as all activities by the ECAs themselves.

Key recommendations for the South Korean government

The South Korean government, in close cooperation with like-minded countries, should intensify its efforts for the 'Paris alignment' of K-sure and KEXIM to achieve a transformation of the global export financing system. Key recommendations for Korean government policy regarding K-Sure and KEXIM include:

(i) **Introducing transparent tracking and disclosure of climate impacts by extending the GHG accounting of K-Sure and KEXIM to scope 3 emissions** as soon as possible and based on international best practices such as PCAF.

(ii) **Expanding coal related exclusion policy to cover the entire coal value chain** (mining, metallurgical coal, etc.) and developing ambitious phase out policies for oil and natural gas and their related value chains.

(iii) **Setting Paris-aligned portfolio and sectoral emission reduction targets** for both the short- and medium- as well as long-term using a third-party to continuously monitor the implementation status, e.g., through the Science Based Targets Initiative (SBTi).

(iv) **Adopting a common climate finance earmarking applicable to both ECAs** which clearly defines climate finance and climate-related investments and requires reporting on climate finance provided at a sufficient level of granularity (i.e., transaction level) and significantly increase climate finance especially renewable energy finance.

(v) **Ratchet up international engagement with a view of aligning the global export finance system with the Paris Agreement.** This may include participation in and alignment with the ambition set forth by 'coalitions of the willing', such as the E3F initiative, and strategizing with like-minded OECD Arrangement participants about how to achieve a transformative climate-related policy reform of the Arrangement.

More detailed recommendations for the government as well as for K-Sure and KEXIM are provided in each assessment dimension. An overview of all recommendations is available in Section 5 of this report.

1. Introduction

Limiting temperature increase to 1.5°C above pre-industrial levels requires massively re-directing financial flows away from carbon-intensive activities and towards low-carbon activities. However, despite commitments made under Article 2.1(c) of the Paris Agreement – in which Parties agreed to making "finance flows consistent with a pathway towards low greenhouse gas emissions […]" (UNFCCC 2015) – many countries still provide significant financial support to fossil fuel value chains, among others, through their export credit agencies (ECAs). This contributes to a global lock-in of carbon intensive infrastructures and hampers the ability of many developing countries to leap-frog the fossil fuel stage of development. DeAngelis and Tucker (2021) estimated that from 2018 to 2020, ECAs of major G20 countries provided an annual average of USD 40.1 billion to support fossil fuel projects, while renewable energy was supported with only USD 3.5 billion annually. Since 2019 of all public finance institutions (PFIs), G20 ECAs make up the single largest group of fossil fuel investment supporters, ahead of (bilateral) public development banks (Oil Change International 2021). ECAs are often decisive in whether a deal can take place, e.g., by de-risking a project or improving lending conditions of banks which finance export transactions. Several recent studies highlighted the lack of domestic and international climate policies to decarbonize ECAs, lacking transparency of ECAs' climate impacts, as well as potential litigation if no climate action is undertaken (e.g., Shishlov et al. 2020; Wenidoppler 2017; DeAngelis and Tucker 2021; Cook and Viñuales 2021). At the same time, research suggests vast opportunities for ECAs if climate-related commitments are made, collaborations launched and convergence among a critical mass of like-minded countries is reached Hale et al. 2021).

Text Box 1: What are Export Credit Agencies?

ECAs are either private companies that act on behalf of a government or public entities themselves (OECD 2021a). Their *raison d'être* is the promotion of the trade and national export businesses competing for riskier markets abroad (ibid., Shishlov et al. 2020). ECAs provide, for example, guarantees to hedge against risks of an exporter or lender not being repaid, e.g., due to political instability, expropriation, or unexpected currency fluctuations. They can also act as direct lenders with short-, medium- or long-term loans and may provide earmarked project finance or even equity instruments. In return, they receive risk premiums or interest payments. In the case of repayment loss, ECAs compensate exporters or lenders directly whilst being in the position to draw up a debt settlement arrangement with the Paris Club[2]. Opting for a state-backed transaction can significantly de-risk deals for exporters and crowd in public or private co-finance, especially for large-scale, long-term or particularly risky infrastructure projects. Many ECAs require exporters or banks to demonstrate that private export credit insurance would not cover the deal. This situation is reflected in the fact that among Berne Union members – the largest association for the export credit and investment insurance industry worldwide – official ECAs predominantly provide long-term commitments and political risk insurance. This represents about one third of total commitments outstanding which were estimated in 2020 at USD 2.77 trillion (Berne Union 2021). About two thirds are short-term commitments which are predominantly insured by private insurers (*ibid.*). The fact that ECAs typically support larger and riskier projects that would not have been insured otherwise underlines the rationale of examining with greater scrutiny the role of ECAs in the context of achieving the objectives of the Paris Agreement.

Over the past years, a surge of relevant commitments targeting international public finance by governments underscored the urgent need for action. Some outstanding achievements are:

- The **formation of the 'Export Finance for Future (E3F)' initiative[3] launched in April 2021**, a 'coalition of the willing' consisting of ten major European economies, which commits members to end support for thermal coal power and related infrastructure and foresees a review of and assessment of how to phase out other fossil fuel-related officially supported export finance. E3F published their first joint energy finance transparency report in 2022 (E3F 2022).

- The **agreement[4] among participants in the Organization for Economic Cooperation and Development (OECD) Arrangement on export credits to cease support for coal-fired power plants without carbon capture and storage (CCS)**. This ban, however, does not cover other elements of the coal value chain, such as mining or transport, let alone oil and gas value chains for which no sector understanding exists at all.

- The **Statement[5] on International Public Support for the Clean Energy Transition launched at COP26 in Glasgow**, a UK-led initiative of 35+ countries and financial institutions which commits signatories to end new direct public support for the international 'unabated' fossil fuels, except in limited and clearly defined circumstances, by the end of 2022.

These commitments represent important steps on the way to achieving a global climate transition and are the fruit of intensive efforts by advocates for reform, especially from civil society and pro-active governments. In the context of the global energy crisis following Russia's invasion of Ukraine, however, governments of the G7 factored out "*publicly supported investment in the gas sector [that] can be appropriate as a temporary response [...]*" from the previous COP26 commitment (G7 Germany 2022, p.5). This is a clear backslide given the long-lived nature of liquefied natural

[2] The Paris Club is 'an informal group of official creditors' which collects public debt owed by governments to creditor countries. Debt owed by private entities which is guarantees by the public sector (e.g., through ECAs) is comprised by the definition of public debt (Club de Paris 2021).

[3] See: https://www.tresor.economie.gouv.fr/Articles/2021/04/14/seven-countries-launch-international-coalition-export-finance-for-future-e3f-to-align-export-finance-with-climate-objectives

[4] See: https://www.oecd.org/newsroom/agreement-reached-at-oecd-to-end-export-credit-support-for-unabated-coal-fired-power-plants.htm

[5] See: https://ukcop26.org/statement-on-international-public-support-for-the-clean-energy-transition/

gas (LNG) infrastructure that may well beyond the current crisis spur new and additional production and use of natural gas well beyond the current energy crisis, especially if 'temporary' remains a term for an undefined period. At the same time, this exception allowed Japan to endorse the G7 Leaders' Communiqué.

In addition to identifying the commitments of different clubs and coalitions like the G7, the OECD Arrangement Participants, the E3F or the signatories of the COP26 Statement, it is necessary to consider the highly concentrated nature of public support for fossil fuels in a limited number of countries among the G20. According to Oil Change International (2021), Canada, South Korea, Japan and China alone accounted for 78% of all reported financial support through ECAs between 2018 and 2020 to the fossil energy sector (around EUR 93.7 billion). This is followed by Germany, Italy, the United Kingdom and the United States that together provided for another 19% of the total (around EUR 22.4 billion). For some countries, like Canada, most of this support is granted at the domestic level and is therefore unaffected by the COP26 Statement (Censkowsky et al. 2022). Other G20 countries including Russia, India and Saudi Arabia either use other public or private channels to support fossil fuel energy investments, or vastly under-report on their energy sector finance.

This data snapshot demonstrates the insufficiency of commitments emerging from the current coalition and club landscape, especially in the case of Canada (high share of domestic fossil fuel support), China (outside of all commitments, no Participant to the OECD Arrangement) and South Korea (no G7 member, no COP26 Statement signatory). It is hence urgent priority of working towards enlarging existing clubs and coalitions while not backsliding on their ambition. Indeed, the IEA has already last year called for ending all new fossil fuel supply developments on the path to Net Zero, including natural gas, by the end of 2021 (IEA 2021). Conversely, Tienhaara et al. (2022) report more than 55,000 new upstream oil and gas projects in 159 countries for which a final investment decision is expected between 2022 and 2050 that would need to be cancelled in line with the IEA Net Zero pathway. Many of these projects benefit from public support, including export finance for necessary equipment and risk insurance, or multilateral investment treaties that play a major role in protecting investments in the fossil fuel industry against all kinds of risk, including transitional climate risks (OECD 2022a).

In the past, ECAs "*have done little to steer their portfolios in one direction or another* [...] [and] *the respective portfolios to date mostly reflect the composition of the national export industry* (E3F 2022, p.2). This noteworthy observation was the baseline and key motivation also for Perspectives Climate Research to develop a dedicated methodology to assess the alignment of ECAs with the Paris Agreement (Shishlov et. al 2021). Based on these assessments, we seek to inform ongoing reform processes through targeted policy recommendations for governments and ECAs to drive climate action in the global export finance system. In short, the methodology consists of five assessment dimensions, 18 key questions and 72 concise benchmarks against which an ECA portfolio and strategy as well as relevant government policy are assessed. Several case studies have already been conducted, including Canada, France, Germany, Italy, Japan, the Netherlands, the United Kingdom and the United States[6].

[6] Find all case studies under: https://www.perspectives.cc/public/publications/

2. Officially supported export finance in South Korea

2.1. The role of exports in the South Korean economy

South Korea (the Republic of Korea) is the 4th largest economy in Asia and the 10th largest in the world in terms of nominal gross domestic product (GDP) (International Monetary Fund 2022). South Korea is also one of the world's leading exporters, ranking 8th in absolute export value after France and the Netherlands in 2021 (World Bank 2021a). The top exports of South Korea are integrated circuits (USD 89.1 billion), cars (USD 36.9 billion), refined petroleum (USD 23.3 billion), passenger and cargo ships (USD 17.3 billion), and motor vehicles; parts and accessories (USD 16 billion). The Republic's primary export markets are China (USD 131 billion), the United States (USD 75 billion), Vietnam (USD 48 billion), Hong Kong (USD 30.9 billion), and Japan (USD 25.1 billion) (OEC 2022).

Exports are at the forefront of South Korea's economy, with exports of goods and services accounting for 42% of the national GDP in 2021 (World Bank 2021b). It is widely acknowledged that exports have been a driving force behind South Korea's rapid economic growth since the early 1960s, helping to transform the country from a poor agricultural society into a highly developed industrialized nation. The government has actively promoted exports by providing financial support and incentives to businesses, as well as investing in infrastructure and research and development (Kim 1994). The export-oriented approach has also led to the growth of large family-owned conglomerates, also called chaebols, such as Samsung, LG, and Hyundai, which have become dominant players in their respective industries and have helped to boost South Korea's export competitiveness (Aldag 2023). South Korea's remarkable economic growth in a matter of generations has enabled it to join the OECD in 1994 and the G20 in 2010. In the early 2000s, the Korean Republic was even regarded as one of the eleven countries with the potential to rival the G7 over time and play a dominant role in the global economy by the middle of the 21st century (Goldman Sachs 2007). In addition to driving economic growth, exports have also helped to diversify South Korea's economy: over the last 20 years, the east Asian country rose from the 32nd to the fifth place in the Economic Complexity Index (ECI) rankings (OEC 2022). Despite facing more challenging circumstances in recent years as a result of the COVID-19 pandemic and global supply chain disruptions, the Korean economy has recovered relatively quickly; the 2021 growth rate amounted to four percent, the highest in the past eleven years, with export volume reaching an all-time high of USD 640 billion (K-Sure 2022).

South Korea is one of the world's largest providers of officially supported export finance, along with other major exporting countries such as Japan, China, and the United States. The officially supported export finance includes government-backed loans, guarantees, and insurance to support exports. According to OECD data, South Korea provided on average USD 6.9 billion in officially supported export finance between 2009 and 2019, ranking it as the third-largest provider of such support behind the United States and Germany (OECD n.d.b). It is important to note that this data only compares official export credits volumes of OECD Arrangement Participants, which excludes China who is another major player[7].

Official export finance support in South Korea is provided through two official export credit agencies: The Korea Trade Insurance Corporation (K-Sure) and the Export–Import Bank of Korea, also commonly known as the Korea Eximbank (KEXIM). Both are state-owned, but supervised by different ministries, offer different financial products and operate independently of each other.

2.2. Export-Import Bank of Korea (KEXIM)

The **Export-Import Bank of Korea (KEXIM)** was founded in 1976 by the Korean Ministry of Finance (MoEF) and is providing export credit and guarantee programs to support Korean companies in conducting overseas business. The Korean state owns 69% of KEXIM directly, 22% through the Korea Development Bank (KDB), and 9% through the Bank

[7] The OECD data does also not reflect the entire official export finance volume per country as reporting to the OECD in conformity with the Arrangement is only mandatory for transactions with a repayment term of two years or more (OECD n.d.b).

of Korea (Fitch Ratings 2022). The primary goal of KEXIM is "*to facilitate the development of Korea's economy and enhance economic cooperation with foreign countries*" (KEXIM n.d.a). As a state-owned institution, KEXIM operates under the supervision and guidance of the Korean government, and its operations are subject to the regulations and policies set by the government. KEXIM provides export credit, loan and guarantee programs designed to bolster and improve the competitiveness of Korean companies in exporting goods such as ships, industrial plants and high technology industries (ibid.). Export credits are provided for overseas investments and projects as well as natural resource development projects. Furthermore, KEXIM is responsible for two government-entrusted funds: the Economic Development Cooperation Fund (EDCF), a Korean Official Development Assistance (ODA) program, and the Inter-Korean Cooperation Fund (IKCF), an economic cooperation program with North Korea. For the former, KEXIM conducts appraisals, settles loan agreements and disbursements, assesses economic development aid projects in developing countries and evaluates the policy directions of ODA.

The amount of financial support extended by the state each fiscal year, in the form of contributions to capital or transfers of income to reserves, plays an important role in determining the ECA's lending capacity. Pursuant to Article 37 of the KEXIM Act, "*the annual net losses of the Export-Import Bank of Korea shall be offset annually by the reserve, and if the reserve is insufficient, the government shall provide funds to cover the deficit*" (SEC 2014). As a result of the KEXIM Act, the government is largely overseeing KEXIM's operations and is legally under the obligation to replenish any deficit that arises if the reserves, which include surpluses and capital surplus items, are insufficient to cover any annual net losses. In light of these considerations, if an entity has insufficient funds to make any payment under their obligations, including the debt securities, the government shall take appropriate steps, such as making a capital contribution, allocating funds, or taking other action, to enable such a payment. However, these are not official guarantees as the provisions of the KEXIM Act, including Article 37, may be amended at any time by action of the National Assembly (ibid.).

KEXIM has a binary internal decision-making system including a high-level operating committee and a board council. The committee in charge of KEXIM's operations, which is headed by the president of KEXIM and includes public officials from related ministries and external experts, is responsible for revising the Articles of Incorporation and establishing basic policies for the bank's operations. Other important matters related to KEXIM's business are discussed and decided upon in the Board meetings, which are composed of the KEXIM president and directors appointed by the MoEF. However, major contracts are decided by an export credit committee, which consists of the president and executive director of KEXIM, and headquarters' directors (Bachinger et al. 2022).

2.3. Korea Export Insurance Corporation (K-Sure)

The **Korea Export Insurance Corporation (K-Sure)**, which operates under the Ministry of Trade, Industry and Energy (MOTIE), is the second official export credit agency of South Korea. Formerly called the Korea Export Insurance Corporation (KEIC), it was first established in 1992, under the Trade Insurance Act, as the management institution of export credit insurance. In 2010, Korea Export Insurance Corporation changed its name to Korea Trade Insurance Corporation, also known as K-Sure. K-Sure's goal and mandate are to promote "*trade and overseas investment of Korean enterprises with the mission to boost the national competitiveness*" (K-Sure n.d.a). K-Sure provides short-term, medium-term, and long-term export credit insurance programs to cover for risks arising from export of good and services, overseas construction works and investments, export of contents and service as well as other overseas transactions (ibid.).

K-Sure's insurance products cover political risks, such as war, expropriation, and currency inconvertibility, as well as commercial risks, such as the insolvency of foreign buyers. Similar to KEXIM, there is a regulatory oversight from the part of the Korean government to look over the agency's operations. Furthermore, K-Sure's 'Trade Insurance Fund' is managed both through the integrated risk management system and the National Assembly-approved trade insurance underwriting ceiling (MOTIE 2014).

K-Sure has an internal decision-making system similar to KEXIM. The operating committee, led by the K-Sure president and including public officials from related ministries and designated experts, makes decisions on overall operating issues such as changes to the insurance rate in its Articles of Incorporation. Key matters like business goals, budgeting, and operation plans are decided in the Board meeting, which consists of the chairman, executive directors, and external non-executive directors from the industry and finance sectors. The managerial committee, comprising the chairman and executive directors, reviews and approves agenda items related to project approval, sometimes with input from auditors. K-Sure is also a member of the Berne Union, which is a global association of export credit and investment insurers (Berne Union n.d.a). It is worth noting that although KEXIM and K-Sure operate independently, they both collaborate with other financial institutions to provide loans and insurance for numerous large-scale overseas projects (Bachinger et al. 2022).

2.4. Overview of South Korean export credit agencies

While there are similarities in the activities and operations of K-Sure and KEXIM, the two ECAs have different roles in supporting Korea's export industry. On the one hand, KEXIM primarily provides export financing to Korean exporters and importers to help them manage their financial risks related to international trade by offering a range of financial services, including export credit loans and guarantees to support Korean companies' export-related activities. The ECA also provides financial assistance to Korean companies investing overseas. On the other hand, K-Sure provides export credit insurance to Korean exporters and banks to protect them against the risk of non-payment by foreign buyers. K-Sure's role is to enhance the competitiveness of Korean exporters by providing them with credit insurance that helps them to manage risks in overseas trade. In summary, the biggest difference between KEXIM and K-Sure is that KEXIM provides export financing while K-Sure provides export credit insurance. Thus, both institutions play a crucial role in supporting Korea's export industry by helping Korean companies manage financial and credit risks associated with international trade. Table 1 provides an overview of K-Sure and KEXIM´s organization and activities.

Table 1: Overview of the Korean ECAs K-Sure and KEXIM

Key facts	K-Sure	KEXIM
Type of ECA	State-owned	State-owned
Main sectors*	Automotive industry, information and communication technology (ICT), machinery, chemicals, construction, and renewable energy**	Electronic Machineries (17.4%), Petrochemical Products (15.1%), Automobiles (12.6%), Ship building (12.5%)
Geographic activity concentration*	Asia (26.6%), Europe (24.2%), Middle East (23,3%), Latin America (7.7%), Africa (5.5%)	Asia (42.7%), Europe (19%), North America (16%), Middle East (9.7%)
Commitments outstanding[8]*	KRW 195.9 trillion (EUR 141.048 billion)***	KRW 107.7 trillion (EUR 77.4 billion)***
New commitments[9]*	KRW 80.4 trillion (EUR 57.7 billion)***	KRW 76.5 trillion (EUR 55.08 billion)***
Main instruments of financial support	Short-term Export Credit Insurance, Medium and Long-Term Export Credit Insurance, Export Credit Guarantee, Foreign Exchange Risk Insurance, Other Services****	Export Promotion Loan, Export Growth Loan, Export Project Loan, Export Facilitation Loan, Overseas Investment, Overseas Project Loan, Overseas Business-Related Financial Guarantee
Category A and B projects*	Category A: 3 Category B: 0	Category A: 5 Category B: 2

Note: (*) = Data from 2021, (**) = K-Sure does not disclose information about the main sectors in which it is involved. The listed sectors have been mentioned in the Annual Report 2021. (***) = exchange rate used for EUR/KRW: 1:1,391.51. (****) = To other services count the following: Foreign Enterprise Credit Investigation Service, Overseas Debt Collection and Recovery Service, Trade-Sure Consulting. Sources: KEXIM (2022); K-Sure (2022); K-Sure (n.d.b); KEXIM (n.d.b)

[8] Total portfolio (or also called commitments outstanding) is a 'stock parameter' and refers to the total amounts under cover (i.e., insurance, guarantees, loans etc.) at a certain point in time, e.g., at the end of the financial year (Shishlov et al. 2021)

[9] 'Flow' item, showing the total volume of new insurance/guarantee/loan/etc. commitments issued during the half-year for which commitment has been confirmed. This Includes the full amount of new commitments issued during the half-year, even if disbursements are to take place later." (Berne Union 2022)

3. Climate-related policies in officially supported South Korean export finance

Moon Jae-in, former President of South Korea, one of the world's most fossil-fuel-dependent economies[10], made the following statement at the National Assembly in Seoul in 2020: "*together with the international community, we will actively respond to climate change and target carbon neutrality by 2050*" (Cha 2020). That same year, the South Korean government revealed a Green New Deal worth approximately KRW 114 trillion (USD 94.5 billion), to be invested over the next few years to help the country's economy recover from the COVID-19-related recession and reach its climate neutrality goal. The anticipated government spending aims to create 1.9 million new jobs by 2025, with a particular emphasis on advancing digital technologies and accelerating the green transition of key sectors such as energy, housing, mobility, and industry with the vision to move from a "*carbon dependent*" to a "*low-carbon economy*" (MOEF 2020). In 2021, South Korea also announced a stronger Nationally Determined Contribution (NDC) including a 40% reduction in emissions compared to 2018 levels, an increase in ambition of 14.6% from its 2020 NDC target (Republic of Korea 2021a).

Besides its domestic ambitions, South Korea announced in April 2021 that public support for overseas coal-fired power plants would be suspended (Reuters 2021), which is enforced for all public finance institutions, including KEXIM and K-Sure, since October 2021. Korean NGOs report that their ECAs have been reluctant to withdraw their support for coal related projects in the past, citing compliance with the OECD Sector Understanding on Export Credits for Coal Fired Electricity Generation under the OECD Arrangement (Kim et al. 2021). However, the recent reform of the OECD Arrangement ends export credit support for unabated coal-fired power plants thereby discontinuing this Sector Understanding (OECD 2021a), thus reaffirming the Korean government's decision. Considering that South Korea is the world's tenth largest emitter of greenhouse gas (GHG) emissions (Gütschow et al. 2022) and, through its public financial institutions, one of the top five overseas fossil fuel financiers (DeAngelis and Tucker 2021; Oil change International 2020), the country's official commitments indicate that it is determined to take stronger action against climate change in the future.

However, since these declarations, there have been concerning trends that call into doubt and possibly even backtrack some of these climate pledges. As the country continues to support overseas oil and gas projects, even declaring liquified natural gas (LNG) as a 'green fuel' under its green taxonomy[11], there is still a long way to go to align its public finance portfolio with its climate targets. Furthermore, South Korea, unlike 39 other countries and financial institutions, is not a signatory to the statement on International Public Support for the Clean Energy Transition (often referred to as "the Glasgow Statement"), which was launched at COP26 in Glasgow (COP26 2021). The statement is a UK-led initiative that commits signatories to ending new direct public support for international 'unabated' fossil fuels by the end of 2022, except in limited and clearly defined circumstances.

On the institutional level, Korea's ECAs have only recently begun to incorporate climate-related factors into their business strategies (Bachinger et al. 2022). As such, KEXIM and K-Sure developed environmental, social and governance (ESG) strategies in 2021 and established ESG departments and committees (K-Sure 2022, KEXIM 2022). K-Sure, as part of their strategy to *"become a global leader in ESG management"* aims to increase support for eco-friendly projects to KRW 11.5 trillion (USD 8.8 billion) annually by 2024 and published its first sustainability report in 2021 (K-Sure 2021a). Similarly, KEXIM launched an ESG strategy and roadmap in order to *"proactively respond to climate change and contribute to sustainable development"*. It aims to provide ESG financing of minimum KRW 180 trillion (USD 138 billion), issue ESG bonds of minimum USD 20 billion and reduce operational carbon emissions by 50% or more (2021-2030) and incorporate ESG in the banks business strategy (KEXIM n.d.c; KEXIM n.d.d). KEXIM also committed a total of KRW 50 billion (USD 42.3 million) in two funds for ESG investment focusing on green (Hydrogen Energy, Solar Energy, Wind Power, Rechargeable Battery ESS, Future Mobility) and digital (Pharmaceuticals, Healthcare, 5G, Next Generation Semiconductors, Digital Contents) sectors (KEXIM n.d.e). For the long-term, KEXIM aims at bank-wide carbon neutrality by 2040 (Scope 1 and Scope 2) and carbon neutrality across its portfolio by 2050

[10] Due to insufficient domestic resources, South Korea imports over 90% of its energy and natural resources consumption (MoFA n.d.). In 2021, energy supply by source in South Korea is composed of 38% oil, 26% coal, 19% natural gas, 14% nuclear, 2% biofuels and only about 1% renewables (IEA n.d.).

[11] K-Taxonomy refers to the classification on what types of economic activities are considered green activities released by the Ministry of Environment in January 2022. Korea's K-taxonomy is significantly influenced by the EU's Sustainable Finance Taxonomy which also labels natural gas as green investment and has the same six environmental objectives for which technical screening criteria are set (Tachev 2022).

by excluding financing for overseas coal-fired power plant projects, setting carbon emission reduction targets for carbon-intensive industries and expanding financial support for renewable energies (KEXIM 2022).

Text Boxes 2 and 3 provide an overview of K-Sure's and KEXIM's individual climate-related policies and commitments.

Text Box 2: Selected climate-related commitments and practices by/for K-Sure

- Adherence to the OECD Arrangement on Officially Supported Export Credits (OECD n.d.c).
- OECD Arrangement Participants' ban on unabated coal-fired electricity generation – October 2021 (OECD 2021a).
- Commitment to transparency and disclosure based on the recommendations of the Task Force on Climate Related Financial Disclosure (TCFD) (K-Sure 2022).
- Commitment to contribute to Korea's national net zero emissions policy aimed at reducing greenhouse gas emissions by 40% by 2030 (ibid.).
- Compliance with international norms such as the OECD Common Approaches, the IFC Performance Standards (IFC PS), the IFC's EHS Guidelines, and TCFD Recommendation (K-Sure 2021a).
- K-Sure initiated various efforts to promote ESG management including formulating ESG strategy, establishing an ESG committee, and issuing a K-Sure sustainability report (ibid.).
- Enactment of 'Export-Based Insurance Sercuritization Special Policy' to support national companies operating in green industries by allowing them to obtain loans at low interest rates when purchasing expensive equipment (K-Sure 2021a).
- Tailored incentives including support in export for SME Exporters with Excellent ESG Management (K-Sure 2021a).
- Since January 2022, Memorandum of Understanding (MoU) between United Arab Emirates' Federal Export Credit Company, Etihad Credit Insurance (ECI) and K-Sure to enhance investments in sustainable green energy with focus on hydrogen production but will also include renewable energy, and electric vehicles (Hyun-woo 2022).

Text Box 3: Selected climate-related commitments and practices by/for KEXIM

- Adherence to the OECD Arrangement on Officially Supported Export Credits (OECD n.d.a).
- Announcement of ESG Investment of a total of KRW 50 billion (USD 42.3 million) focusing on green (Hydrogen Energy, Solar Energy, Wind Power, Rechargeable Battery ESS, Future Mobility) and digital (Pharmaceuticals, Healthcare, 5G, Next Generation Semiconductors, Digital Contents) sectors (KEXIM n.d.e).
- Commitment to bank-wide carbon neutrality by 2040 (Scope 1 and Scope 2) and carbon neutral portfolio by 2050 (KEXIM 2022, KEXIM n.d.f).
- OECD Arrangement Participants' ban on unabated coal-fired electricity generation – October 2021 (OECD 2021a).
- Establishment of an ESG organizational governance structure including a dedicated ESG implementation department and ESG committee (KEXIM n.d.g).
- Establishment of ESG index and guidelines to support ESG-related projects (KEXIM 2022).

- Release of the inaugural KEXIM ESG roadmap highlights the Bank's blueprint for responding to climate change and contributing to sustainable economic growth (ibid.).
- Expressed support for the TCFD and committed to disclosing climate change-related risks, and to increasing ESG-related investments (ibid.).
- KEXIM mandate: executor of the Korean Economic Development Cooperation Fund (EDCF): provides loans for emerging countries to advance sustainable growth, sustainable development and address climate issues (KEXIM n.d.h; GGGI 2021; KEXIM 2022).
- Since October 2021, Memorandum of Understanding (MoU) with the Global Green Growth Institute (GGGI) to form a strategic partnership in climate change response (GGGI 2021).

The following assessment of 'Paris alignment' provides for an in-depth assessment of the five dimensions of 'Paris alignment' and provides tangible recommendations drawn from scientific literature and best practices in the global export finance system. This assessment is designed to guide K-Sure and KEXIM as well as responsible authorities within the Korean government to align their official export finance stream with the objectives of the Paris Agreement.

4. Assessment of K-Sure and KEXIM's alignment with the Paris Agreement

We assess the 'Paris alignment' of K-Sure and KEXIM[12] based on a methodology specifically developed to evaluate the alignment of ECAs with the Paris Agreement (Shishlov et al. 2021). This methodology conceptually and practically builds on existing approaches to 'Paris alignment' developed for other financial institutions, such as multilateral development banks (MDBs). Most notably, this includes the structure and rationale of the Public Development Banks' Climate Tracker Matrix by the environmental think tank E3G, which, in turn, is based on the six building blocks of the Paris Alignment Working Group (PAWG) by major MDBs. The assessment of ECAs differs notably from these two approaches since it transparently underpins each assessment dimension (hereafter referred to as 'dimensions') with specific key questions (three to five questions per dimension, in total 18 questions) as well as specific benchmarks (four benchmarks per question, in total 72 benchmarks). The four benchmarks correspond to four labels of Paris alignment (Figure 1).

Figure 1: Labels of Paris alignment and corresponding score ranges

Unaligned	0.00 - 0.50
Some Progress	0.50 - 1.50
Paris aligned	1.51 - 2.50
Transformational	2.51 - 3.00

This methodology also notably differs from other approaches to assess the 'Paris alignment' of financial institutions since it applies a weighting approach to the assessment dimensions. This permits the emphasis of some dimensions over others as some dimensions are more imminently important to reaching the Paris climate goals (e.g., mitigation is more important than engagement). The selection of weights reflects a careful consideration of priorities and is based on the expertise of experts from research and civil society organizations. The final scoring for each question is carried out by evidence-based expert judgement (see Shishlov et al. 2021 for more details about the methodology and the list of organizations that participated in the methodology development process).

K-Sure and KEXIM received the same overall assessment score of 0.27 out of 3.00. Therefore, according to our methodology, both South Korean ECAs were **scored as 'Unaligned with the Paris Agreement'.** The following presents a justification for the scoring of each question per assessment dimension.

[12] The assessment boundary comprises South Korean government policy for K-Sure and KEXIM as well as all activities by the ECAs themselves.

4.1. Dimension 1: Financial and non-financial disclosure and transparency

The first dimension is underpinned by four key questions regarding the transparency of financial and non-financial disclosures of the ECA. This dimension is a crucial prerequisite to evaluate the Paris alignment of ECAs in subsequent dimensions and to hold governments accountable for supporting businesses abroad against their commitments under international treaties, such as the Paris Agreement. Furthermore, it is especially important since ECAs were found to be particularly lacking transparency in the past (Shishlov et al. 2020). The methodology weighs this dimension with a total of 20%, recognizing that transparency, while important, can only be a precondition for decarbonization itself. **In this assessment dimension, K-Sure and KEXIM were both rated 'Unaligned', but with potential for 'Some Progress' with an assessment dimension sub-score of 0.50/3.00 each**.

Q Nr.	Dimension 1 – key questions	Rating K-Sure	Rating KEXIM
1.1	To what extent can the GHG intensity of all activities supported by the ECA be assessed based on publicly available data? (Non-financial disclosure)	Some progress	Some Progress
1.2	In how far can the share of fossil fuel finance over total portfolio be assessed? (Financial disclosure)	Unaligned	Unaligned
1.3	In how far can the share of climate finance over total portfolio be assessed? (Financial disclosure)	Unaligned	Unaligned
1.4	To what extent does the institution adhere to the Recommendations and Supporting Recommended Disclosures of the Task Force on Climate-related Disclosure (TCFD)?	Some progress	Some progress

Q1.1: To what extent can the GHG intensity of all activities supported by the ECA be assessed based on publicly available data? (Non-financial disclosure)

K-Sure was rated with '**Some progress'** as the ECA reported direct operational (scope 1) and indirect operational (scope 2) emissions for 2020 within its 2021 Sustainability Report[13] but without mentioning of expanding this reporting to also cover scope 3 – which is typically the biggest share of an ECA's GHG emissions. Additionally, the ECA is yet to sign the Partnership for Carbon Accounting Financials (PCAF) which requires the tracking and disclosure on financed activities and their emissions within the next three years (PPCA 2021; PCAF n.d a). K-Sure discloses also only very limited information on projects targeted for environmental and social due diligence according to the OECD Recommendation of the Council on Common Approaches for Officially Supported Export Credits and Environmental and Social Due Diligence (the "Common Approaches"). Category A and B projects of K-Sure for 2021 did not report associated GHG emissions, and one of these projects is the highly contested deep-sea gas pipeline ("Barossa gas project") in Australia for which both Korean ECAs consider support (Atkins 2022a).

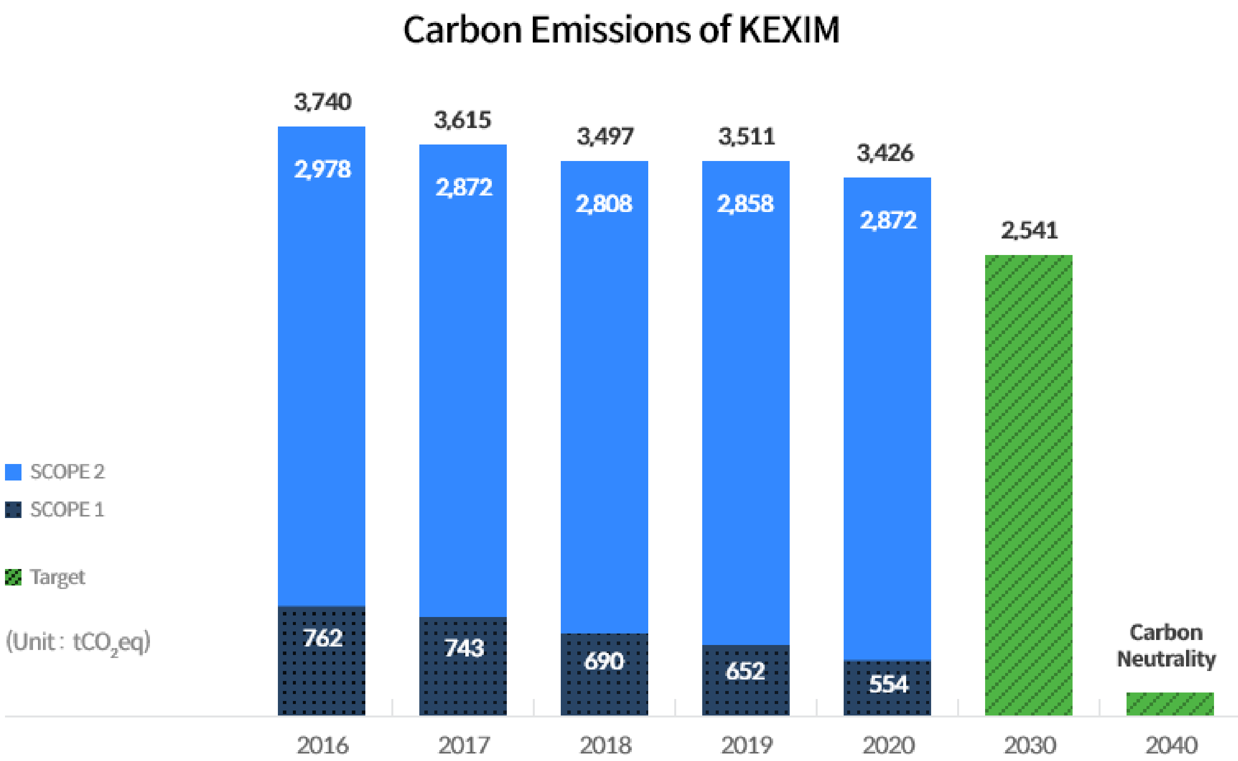
KEXIM was also rated with "**Some progress**" as it aims at scope 1 and 2 carbon neutrality by 2040 and in this context reports on scope 1 and 2 emissions from 2016 onwards on its website (KEXIM n.d.f, see Figure 2). It remains unclear from the publicly available information whether KEXIM uses an international standard such as the GHG Protocol to account for the reported emissions[14]. Apart from these reported scope 1 & 2 emission figures, it is not possible to assess the GHG intensity of its supported activities (scope 3 emissions) based on publicly available data. However, KEXIMs plans to set carbon emission reduction targets for carbon-intensive industries as part of its strategy of achieving a carbon neutral portfolio by 2050 (KEXIM 2022). To set such emission reduction targets, the institution needs to assess scope 3 emissions. To date, however, the institution does not mention when emissions resulting from its portfolio will be included in its environmental management system. KEXIM is

[13] Regarding transparency, it is noteworthy that the Sustainability Report is difficult to find and hardly mentioned or linked on the K-Sure website. To find the Sustainability Report, open the K-Sure website in Korean and look for "Publication materials" - "Other data" or use this link: https://www.ksure.or.kr/rh-kr/bbs/i-373/list.do

[14] According to KEXIM, they must report emissions pursuant to Article 28 of the Enforcement Decree of the Framework Act on Low Carbon, Green Growth (KEXIM n.d.f). Since 2010, the framework act creates the legislative framework for mid- and long-term emissions reduction targets, cap-and-trade, carbon tax, carbon labelling, carbon disclosure, and the expansion of new and renewable energy. It also prescribes mandatory annual GHG emission reporting to the government, and the establishment of an Integrated Information Management System for GHGs (LSE n.d.). However, how to report emissions is not mentioned (KLRI n.d.)

also not a signatory of the Partnership for Carbon Accounting Financials (PCAF). KEXIM's environmental and social due diligence and scope 1 and 2 GHG emissions accounting are somewhat more transparent than K-Sure's, as KEXIM, for example, has a comprehensive project proposal document with GHG estimates for the Barossa project mentioned above, as well as scope 1 and 2 emissions reports for several years that are clearly presented on its website.

Figure 2: Scope 1 and 2 emission reporting by KEXIM



Source: KEXIM n.d.f

We recommend KEXIM and K-sure to extend its GHG accounting to scope 3 emissions as soon as possible and based on international best practices. Currently this is the PCAF to which other ECAs, such as Canadian ECA EDC, have already committed to (e.g., PCAF n.d.b). **We also recommend** that the two Korean ECAs share and learn from other ECAs, such as the French ECA Bpifrance, which attempted to assess the carbon footprint of six asset classes of its portfolio (Gondjian and Merle 2020; Bpifrance 2020). In the medium term, **we recommend** both ECAs to publish actual and estimated future emissions data for both its portfolio and new commitments on their website to increase overall transparency on the climate impact of their business activities.

Q1.2: In how far can the share of fossil fuel finance over total portfolio be assessed? (Financial disclosure)

This assessment question was rated with '**Unaligned**' for both KEXIM and K-Sure due to lack of publicly available data to allow for a higher score. For KEXIM, the share of fossil fuel finance over total portfolio cannot be assessed as the ECA only breaks down its total commitments outstanding as well as new commitments by financial product, country and region, not by supported energy type or related value chains (KEXIM 2022; KEXIM 2021; KEXIM 2020). Similarly, K-Sure only discloses the share of outstanding and new commitments by financial product and by region (K-Sure 2022; K-Sure 2021; K-Sure 2020). As such, the information on the total amount of resources allocated by KEXIM and K-Sure is available, but granular and disaggregated information at project level is not publicly available.

Meaningful disclosure in this regard has only occurred in response to information requests by the Office of National Assembly, such as the request of the Office of National Assembly Member Soyoung Lee for KEXIM and K-Sure to disclose ECA-related financing details of the identified overseas oil and gas projects in support of a study undertaken by Solutions for Our Climate, a Korean NGO pushing for effective climate action and energy transition (Youn et al. 2021). However, such disclosure is asymmetrical and vague in many aspects, e.g., lacking transparency on the methodological approaches used to quantify fossil fuel-related finance. Moreover, no announcements to engage in non-financial energy sector specific reporting have been identified for either KEXIM or K-Sure.

We recommend disclosing financial information of commitments outstanding (both project stock and flow) of all energy-related value chains. This should include both transactions related to (i) fossil fuel value chains, (ii) clean energy (or more narrowly, renewable) energy-related value chains; and (iii) other primary energy sources (e.g., nuclear). See the example of the Dutch ECA Atradius DSB (Atradius DSB 2021; Government of the Netherlands 2021) for a useful attempt to define fossil fuel value chains, which currently represents a best practice among ECAs.

Q1.3: In how far can the share of climate finance over total portfolio be assessed? (Financial disclosure)

Regarding the reporting on climate finance (Q1.3), both K-Sure and KEXIM were rated '**Unaligned**'. While both ECAs have product lines which are reportedly designed to have a positive climate impact ('New Industries' for K-Sure and 'Innovative Growth Industries', 'Green Bonds' and 'ESG Financing Program' for KEXIM), neither of them (i) provides a clear definition of climate finance, (ii) fully discloses project-level information, or (iii) discloses the share of these operations over the total portfolio.

K-Sure provides support for so called 'New (energy) Industries' to *"reduce carbon emissions from its operating activities"* (K-Sure 2022) but it does not provide details on what kind of projects and technologies are supported within this sector. In another part of the annual report, support of KRW 10.1 trillion (USD 7.8 billion) in *eco-friendly fields* is mentioned, yet without any further definition. In its 2021 Sustainability Report, K-Sure reports support for 'New and Renewable Energy Projects' *"in the fields of solar and wind power generation, etc"* with number of projects and amount of support for 2018 to 2020 (for 2020, KRW 643.8 billion/ USD 486.2 million are reported) (K-Sure 2021a). Here, too, there is no precise definition of the technologies supported and no explanation of whether this support is part of the 'New Industries' or eco-friendly fields mentioned above. As part of its Strategy for 2022, the ECA reports that it will *"increase its support for carbon reduction projects, including the production of electric vehicle batteries and LNG-powered vessels*". Again, there is no explanation of what carbon reduction projects entail. Moreover, unlike KEXIM, K-Sure hardly discloses any information on its ESG-related activities on its website. The sustainability strategy mentioned in Chapter 3 cannot be accessed either. Due to this opacity, K-Sure was not rated better.

In its annual report 2021, KEXIM discloses disbursements by areas for its 'Innovative Growth Industries' including categories Energy and Environment & Sustainability but without explaining these categories. However, the ECA also has several other climate-related products: one is the Global Loans Facilitation Program which includes solar and wind as priority sector and for which in 2021, support of KRW 500 billion (USD 385 billion) have been reported. Another is the ESG Financing Program which offers preferential financial terms and conditions based on the reduced amount of carbon emissions of the exporter. KEXIM also reports on the issuance of ESG bonds (KRW 2,337 billion in 2021). This limited reporting, however, does not allow for a better score according to the assessment benchmarks.

Within the USD 100 billion climate finance goal, all developed countries report their climate finance figures by source (bilateral public, multilateral public, export credits and mobilised private) to the OECD on an annual basis (OECD 2021b). The export credit figures submitted to the OECD however are not publicly available.

We recommend that the South Korean government and its ECAs provide for clear definitions of what constitutes climate finance and disclose their reported share of climate finance from export credits for K-Sure and KEXIM-supported activities. The E3F transparency framework (E3F 2022) can serve as a starting point. At the ECA level, **we recommend** enhanced climate-related disclosure for the overall portfolio, including clear definitions for the diverse terms used by ECAs for climate finance. For K-Sure in particular, **we recommend** a more harmonised and structured reporting that allows better understanding and assessment of the share of climate finance over their total portfolio.

Q1.4: To what extent does the institution adhere to the Recommendations and Supporting Recommended Disclosures of the Task Force on Climate-related Disclosure (TCFD)?

K-Sure and KEXIM scored '**Some Progress'** with regards to adherences to the TCFD. In May 2021, KEXIM voiced plans to implement the TCFD recommendations and "*will analyze the potential impact of climate-related risks and opportunities, set up the relevant metrics and targets, and ensure transparency in its disclosure of relevant information to industry stakeholders.*" (KEXIM 2022). K-Sure has also indicated plans to implement the recommendations of the TCFD including *"disclosure of climate-related information, in accordance with the TCFD recommendations."* (K-Sure 2022). In K-Sure's 2021 Sustainability Report, the ECA outlines its activities regarding disclosure according to the TCDF recommendations (K-Sure 2021a).

We recommend that both Korean ECAs implement the TCFD recommendations as soon as possible. Moreover, an exchange with pioneers such as the Canada's EDC, which was the first ECA to join the TCFD in 2018, the United Kingdom's UKEF and the Swedish ECAs SEK and EKN. KEXIM and K-Sure should also consider reporting according to the Task Force on Nature related Financial Disclosure (TNFD)[15] for a more comprehensive approach to risks and opportunities. For K-Sure in particular, we recommend harmonised reporting of their renewable energy support lines that allows the share of climate finance to be viewed across the portfolio.

4.2. Dimension 2: Ambition of fossil fuel exclusion or restriction policies

The second assessment dimension is underpinned by three key questions covering the ambition of fossil fuel exclusions and/or restriction policies by type of fossil fuel. Today, the most notable policies emerged from the signatories of the Statement on International Public Support for the Clean Energy Transition and members of the E3F coalition, but South Korea did not join any of them. However, the majority of G20 governments only vaguely committed to climate- and or sustainability-related targets, that have substantive interpretative leeway. Due to the pre-eminent importance of rapid phase out of public support for fossil fuel value chains, the methodology weighs this assessment dimension with 40%.

In this assessment dimension, officially supported Korean export finance was rated as 'Unaligned' with an assessment dimension sub-score of 0.33/3.00.

Q Nr.	Dimension 2 – key questions	Rating K-Sure	Rating XEXIM
2.1	**Coal:** How ambitious is the ECA regarding exclusions or restrictions for support of coal and related value chain?	Some progress	Some progress
2.2	**Oil:** How ambitious is the ECA regarding exclusions or restrictions for support of oil and related value chain?	Unaligned	Unaligned
2.3	**Natural gas:** How ambitious is the ECA regarding exclusions or restrictions for support of gas and related value chain?	Unaligned	Unaligned

Q2.1: How ambitious is the ECA regarding exclusions or restrictions for support of coal and related value chain?

This aspect of the assessment was rated '**Some progress'** for both South Korean ECAs since the Korean government decided not to allow any new public support for overseas coal-fired power plants (Reuters 2021) and because both ECAs have adopted the OECD Arrangement ban on officially supporting unabated coal-fired electricity generation with export credits prohibiting Participants from supporting the *"export of new coal-fired power generation facilities or parts thereof, including all components, equipment, materials and services (including training of personnel) directly required for the construction and commissioning of such power plants"* (OECD 2021). South Korea, together with Japan, China and

[15] For more information on the TNFD see: https://tnfd.info/

India, was among the last G20 countries left that supported coal projects overseas until it stopped support in 2021 (DeAngelis and Tucker 2021). However, it is important to note that the Korean government's policy and the reform of the OECD Agreement do not prevent support for projects already in the project pipeline (e.g., highly controversial Vung Ang II coal power plant in Viet Nam, BankTrack 2021) and also allow for continued support for other types of coal-related projects, such as coal mines and coal-fired steel plants. Therefore, no higher rating can be attributed.

We recommend K-Sure and KEXIM (i) to comprehensively report on all elements of the coal value chain to provide clarity on the current level of support for such fuel type, in terms of number of projects and volume of finance and (ii) to implement more ambitious policies to phase out all projects linked to coal and its value chain, as required by the latest climate science (see e.g., IEA 2021).

Q2.2: How ambitious is the ECA regarding exclusions or restrictions for support of oil and related value chain?

K-Sure and KEXIM were classified as '**Unaligned**' as no information on existing or planned restrictions or exclusions on oil and gas and their associated value chain was found for either of them. On the contrary, K-Sure mentions liquified natural gas (LNG)-powered vessels as part of their support for carbon reduction projects (K-Sure 2022) and KEXIM even states they are keen on backing major LNG projects in the maritime industry in the near future (KEXIM 2022). This framing of gas-related projects is likely linked to the fact that LNG has been declared a 'green fuel' under the K-Taxonomy (see Chapter 3). Moreover, the shipping industry is deeply linked with oil and gas financing through its production and transportation[16] (Youn et al. 2021).

A frontrunner in the field of fossil fuel exclusions is the United Kingdom with its ECA UKEF, which since early 2021 have ceased support for all types of fossil fuels in officially supported export finance following an announcement by former Prime Minister Johnson in December 2020 (Prime Minister´s Office 2020). Also, the United States issued Executive Orders focused on ending its public finance for fossil fuels, including finance provided by US EXIM Bank in January 2021 (The White House 2021). These are significant shifts in policy and political sentiment that create potential for accelerating global climate action (E3G and Oil Change International 2021) and should therefore be followed by South Korea as well.

The science is clear that de facto no new fossil fuel supply may be developed for attaining net zero by 2050 and 1.5°C consistency (IEA 2021). Youn et al. (2021) highlight that financial support provided for oil and gas by Korean public finance institutions over the last years was 13 times higher than for coal. **We therefore strongly recommend** the Korean government to start discussions with domestic exporters (especially in the shipping industry) and energy system experts to come up with a strategy on how to transform the portfolio of Korean oil and gas related businesses to renewable energy investments and in the short-term ending export finance for oil and gas and their related value chain by introducing ambitious exclusion policies. Such a phase out plan should be aligned with the Net Zero by 2050 roadmap by the IEA (2021). It is paramount to focus on complementary policies that facilitate the Korean ECAs involvement in co-creating an emerging project pipeline and hence demand for financial products to support sustainable, green export fields. Such pro-active support for economic diversification has shown to be extremely beneficial elsewhere (e.g., see Vivid Economics (2020) and Molnár et al. (2022) that show positive employment effects of fully shifting export finance support to renewable energies in the UK and the Netherlands, respectively).

Q2.3: How ambitious is the ECA regarding exclusions or restrictions for support of gas and related value chains?

This assessment question is rated as '**Unaligned**', and the same justifications and recommendations as for oil apply to gas (see Q2.2).

[16] The exploration, drilling and production of offshore oil and gas fields is carried out with the help of special ships and offshore facilities, in part because in cases where crude oil and gas cannot be transported via pipelines, they are transported by marine vessels (Youn et al. 2021).

4.3. Dimension 3: Climate impact of and emission reduction targets for all activities

The third assessment dimension is underpinned by three key questions regarding the climate impact and GHG emissions reduction targets for all ECA activities. To achieve the objectives of the Paris Agreement, not only rapid fossil fuel phase out is required, but other sectors also need to drastically reduce absolute emissions levels (IEA 2021). In the absence of comprehensive GHG accounting the assessment of this dimension is difficult – however, where possible, we look at second-best indicators to proxy the emission intensity of an ECA portfolio (e.g., fossil fuel-related energy sector finance). The dimension is assigned an overall weight of 20%.

In this assessment dimension, K-Sure and KEXIM scored 'Unaligned' with an assessment dimension sub-score of 0.00/3.00.

Q Nr.	Dimension 3 – key questions	Rating K-Sure	Rating KEXIM
3.1	Can a declining trend in GHG intensity of the total portfolio be observed? (tCO_2e/US$, Scope 1-3 emissions)	Unaligned	Unaligned
3.2	How significant is the fossil fuel financing relative to total energy-related portfolio? (average of the last three years of available data, where available)	Unaligned	Unaligned
3.3	To what extent do all emission-relevant sectors have targeted GHG reduction targets and in how far are GHG reduction targets in line with benchmarks of acceptable 1.5°C pathways?	Unaligned	Unaligned

Q3.1: Can a declining trend in GHG intensity of the total portfolio be observed? (tCO2e/USD, scope 1-3 emissions)

In this assessment question, K-Sure and KEXIM were rated with '**Unaligned'** because neither has a comprehensive GHG accounting system for scope 1 to 3 emissions, which does not allow us to identify any emissions trend over time. Moreover, neither of the Korean ECAs did join the PCAF to calculate and disclose their portfolio-related emissions within the next three years. It should be noted here that KEXIM and K-Sure disclose scope 1 and scope 2 emissions. However, this circumstance alone does not meet the benchmarks for a higher classification than 'Unaligned' according to the Paris Alignment methodology (i.e., at least GHG intensity available in parts of the portfolio or slightly decreasing GHG intensity over the past three years), as this would require the ECAs to disclose at least part of their Scope 3 emissions (e.g., from certain sectors, as the French ECA Bpifrance has done, see Q1.1 for more details).

We recommend undertaking pioneering efforts to assess the GHG intensity of the overall portfolio to capture the trend of decreasing emissions intensity (both in relation to total outstanding commitments and in absolute terms) of South Korea's officially supported export finance. To do so, K-Sure and KEXIM should develop a comprehensive methodology to estimate individual project emissions, considering the full value chain and all project stages (construction, operation and, if relevant, decommission).

Q3.2: How significant is the fossil fuel financing relative to total energy-related portfolio? (average of the last three years of available data, where available)

Due to the absence of explicit data on energy sector finance, Q3.2 was rated with '**Unaligned'**. Neither K-Sure nor KEXIM report comprehensively support provided by energy source, therefore the significance of fossil fuel finance relative to the total energy-related portfolio cannot be assessed. However, based on secondary sources, South Korea through its ECAs, is regarded as one of the largest supporters of fossil fuel activities in comparison with other G20 ECAs and participants of the OECD Arrangement. From 2019 to 2021, Korea was ranked third in terms of countries providing the most international public finance to fossil fuels only behind Japan and Canada (O'Manique 2022). According to

Oil Change International's 'Shift the Subsidies Database', average support for fossil fuel projects provided by Korean ECAs from 2019 until 2021 amounted to 95% of the total energy-related transactions identified by OCI (Oil Change International 2021). At this point, it must be noted that the 'Shift the Subsidies Database' does not claim to be complete, and the figures mentioned should therefore be understood as an approximation.

We recommend the Korean ECAs, first of all, to further reduce exposure to carbon intensive sectors and take the first steps towards decarbonizing their energy-related portfolio balances in the near future. This implies a near-term phase out of public financing support for fossil fuel value chains. A pioneer in this area is the Danish ECA Eksport Kredit Fonden (EKF), which holds 70% wind power in its portfolio (EKF 2021) and has supported almost no fossil fuel projects between 2018 and 2020 (Buth 2021). Second, **we recommend** reporting new commitments and total commitments outstanding more consistently and with priority in the energy sector based on a value chain approach for both fossil and 'clean' components. The E3F transparency framework can serve as a starting point.

Q3.3: To what extent do all emission-relevant sectors have targeted GHG reduction targets and in how far are GHG reduction targets in line with benchmarks of acceptable 1.5°C pathways?

Neither K-Sure nor KEXIM exhibit GHG emission reduction targets in emission-relevant sectors. Both ECAs were thus rated with '**Unaligned'** in Q3.3. However, KEXIM plans to set carbon emission reduction targets for carbon-intensive industries as part of its strategy of achieving a carbon neutral portfolio by 2050 (KEXIM 2022). If the institution executes this plan by setting targets that are in line with acceptable 1.5°C pathways and/or establishes Science-Based Targets (SBTs) for all emission relevant sectors to reduce portfolio emissions covering scopes 1, 2 and 3, the ECA could achieve a rating of 'Paris aligned' in the future. No announcement in this direction have been identified for K-Sure.

Hence, **we recommend** both Korean ECAs but especially KEXIM to express interest to the Science-Based Targets initiative (SBTi, an organization that supports companies in defining clear and credible mitigation targets and involves a third-party entity review process) and set sectoral targets once they are approved through the SBTi. Finally, we recommend offering financial incentives to exporters which themselves have approved SBTs – and all corporate standards are already developed to sufficient degree by the SBTi.

4.4. Dimension 4: Climate finance: Positive contribution to the global climate transition

The fourth assessment dimension is underpinned by five key questions regarding an ECA's contribution to a just climate transition and sustainable development. Rapidly ramping up and improving climate finance is crucial to achieve the objectives of the Paris Agreement and contribute to a green and just post-COVID recovery (Averchenkova et al. 2020). This dimension is weighted with 10%.

In this assessment dimension, K-Sure and KEXIM are rated as 'Unaligned' with an assessment dimension sub-score of 0.00/3.00.

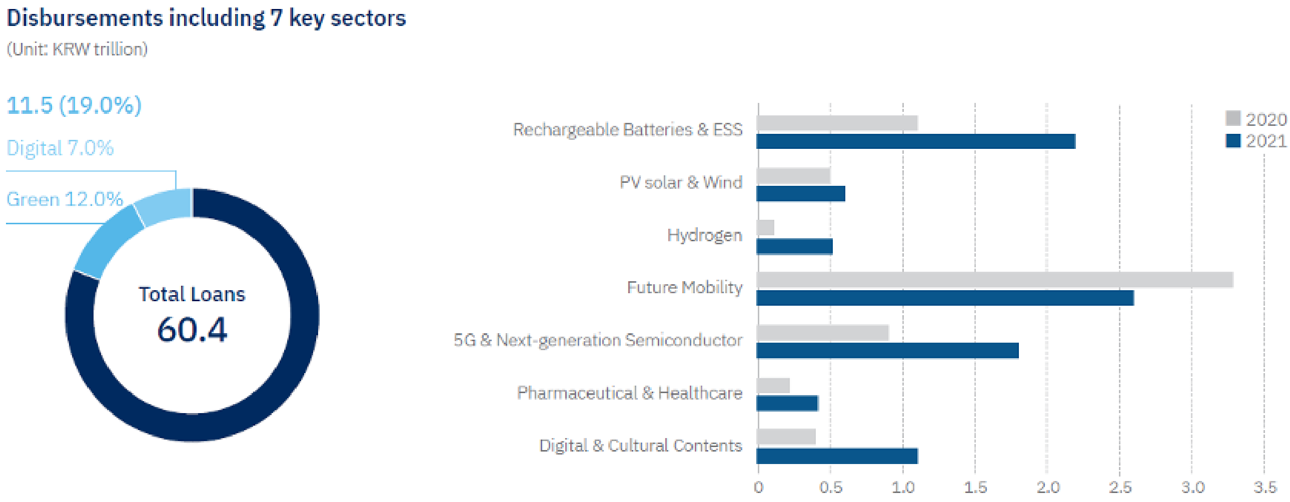
Q Nr.	Dimension 4 – key questions	Rating K-Sure	Rating KEXIM
4.1	What is the reported share of climate finance over total portfolio?	Unaligned	Unaligned
4.2	How can the quality/appropriateness of climate finance earmarks be assessed?	Unaligned	Unaligned
4.3	What is the share of clean energy financing over total energy-related financing?	Unaligned	Unaligned
4.4	To what extent does the pricing structure take into account climate impacts of activities?	Unaligned	Unaligned
4.5	In how far does the institution ensure positive sustainable development contributions of its activities?	Unaligned	Unaligned

Q4.1: What is the reported share of climate finance over total portfolio?

Neither K-Sure nor KEXIM offer a clear definition of climate finance or operate climate-related financial reporting with a sufficient level of granularity (see Q1.3) which would allow for estimates of the climate finance component and its share within the total portfolio. Thus, both ECAs have been rated '**Unaligned**'.

As mentioned in Q1.3, K-Sure provides support for so called 'New (energy) Industries' to *"reduce carbon emissions from its operating activities"* (K-Sure 2022). The ECA discloses in its 2021 annual report support per year: KRW 20.2 trillion (USD 15.5 billion), which would amount to 10% of commitments outstanding (as of 2021) but it does not provide details on what kind of projects and technologies are supported within this sector. KEXIM discloses finance volumes for the priority sectors of its Global Loans Facilitation Program; one of them is PV solar and wind with KRW 500 billion (USD 385 billion) in 2021 as depicted in Figure 3. Renewable energy support can be understood as part of 'climate finance' but without clear definition of climate finance and enumeration of all associated products it is not possible to calculate reliably the share of climate finance over the total portfolio.

Figure 3: Climate-finance related financial product 'Global Loans Facilitation Program' of KEXIM



Source: KEXIM 2022

We recommend that KEXIM and K-Sure provide a clear definition of climate finance within their portfolios. Secondly, both ECAs should improve on reporting of new and outstanding commitments in a more transparent and disaggregated manner to enable a comprehensive, comparable and verifiable assessment on climate finance.

Q4.2: How can the quality/appropriateness of climate finance earmarks be assessed?

This assessment question is scored with '**Unaligned'**, since both KEXIM and K-Sure do not define climate finance in a meaningful way. The Korean ECAs do not publish in-house earmarks of climate finance nor refers to existing ones (e.g., MIGA et al. 2021; OECD 2022b, Shishlov and Censkowsky 2022). As a result, there is no clear picture of climate finance provided by KEXIM and K-Sure over the entire portfolios.

We **recommend** KEXIM and K-Sure to clearly define climate finance and climate-related investments and to commit to reporting on climate finance provided at a sufficient level of granularity (i.e. transaction level).

Q4.3: What is the share of clean energy financing over total energy-related financing? (average of the last three years of available data, where available)

Neither KEXIM nor K-Sure report comprehensively on energy sector financing or on the energy source support is provided to. To provide an estimation, the data from Oil Change International (2021) was used as a proxy for the share of clean energy financing over total energy-related financing by KEXIM's and K-Sure. The average of KEXIM´s new clean energy commitments from 2019 until 2021 amounted to 0.07% of the total energy-related transactions identified by OCI. For K-Sure the share equalled 11% (see Table 2). Both ECAs are thus rated as '**Unaligned'** (benchmark for 'Some Progress' would be: share of clean energy financing over total energy-related financing is higher than 70%, as of the last FY for which data is available and a continuous upward trend of share over the past three FYs for which data is available can be observed as well as no increase in fossil fuel finance in absolute terms over the same period of time).

Table 2: Estimates of KEXIM´s and K-Sure's share of clean energy finance over total energy finance between 2019 and 2021.

ECA	Proxy clean energy finance*	Proxy fossil energy finance**	Share clean over total energy finance
KEXIM	USD 6.4 million	USD 8.58 billion	0.07%
K-Sure	USD 633 million	USD 5.13 billion	11%

Note: (*) = Estimated annual average of 'clean energy finance' between 2019 and 2021 (renewable energy only), (**) = Estimated annual average of 'fossil energy finance' between 2019 and 2021. Source: Oil Change International (2021)

We recommend both ECAs to develop a joint robust definition of 'clean energy' based on the best international practices and considerably increase support to clean energy activities while actively scaling down support for fossil fuels and related value chains.

Q4.4: To what extent does the pricing structure take into account climate impacts of activities?

The score to this assessment question is '**Unaligned'** for K-Sure and KEXIM. Both ECAs provide a wide range of financial instruments, but no information is available regarding different pricing structures linked to the environmental performance or to the carbon intensity of the underlying activity financed. KEXIM mentions that its ESG Financing Program offers preferential financial terms and conditions based on the reduced amount of carbon emissions of the exporter. However, no details on these terms and conditions are provided.

We recommend implementing incentive mechanisms and price discrimination tools across the entire portfolio to nudge customers away from carbon-intensive and towards sustainable activities. Different solutions can be introduced in each financial instrument to support positive climate activities. One concrete way forward could be to offer interest or premium based incentives for customers who have approved corporate science-based targets under the SBTi. Note, however, that in the case of fossil fuel value chains, **we recommend** the use of a near term exclusion mechanism in line with recommendations in Q2.1-Q2.3 rather than an (dis-)incentivization system.

Q4.5: In how far does the institution ensure sustainable development contributions from its activities?

In Q4.5, the Korean ECAs scored 'Unaligned'. Both EXIM and K-Sure adhere to the requirements of the OECD's Common Approaches (KEXIM 2022; K-Sure 2022) through internal policies that evaluate the environmental and social aspects of the projects (including oil and gas) they finance. However, neither of the ECAs is a signatory of the Equator Principles and only K-Sure reports compliance with the IFC's Environmental and Social Performance Standards (ESPS).

KEXIM also expresses its intention to provide sustainable finance for the Korean Green New Deal and to support the low-carbon transition of Korean companies in traditional industries (KEXIM 2022). Starting November 2021, KEXIM collaborates with impact investors as a signatory to the Operating Principles for Impact Management (Impact Principles n.d.) to streamline its impact management systems for determining and assessing positive and negative social or environmental impacts of investments and allow for independent verification. KEXIM also announced the ESG Implementation Principles in accordance with the UN Principles for Responsible Banking that represent a framework for integrating sustainability into the banking industry in alignment with the UN Sustainable Development Goals and the Paris Climate Agreement (KEXIM 2021). As part of its ESG strategy, KEXIM has also committed to strengthen ethical code and approach to human rights in business management (KEXIM 2021). K-Sure affirmed in 2019 its commitment to uphold human rights in overseas projects supported with trade insurance by establishing human rights guidelines and a human rights committee with CSO and labour expert membership (K-Sure 2019).

However, a better score is not given due to bad press in media and NGO communications linking projects supported by both ECAs to human rights violations, as well as socially and environmentally harmful consequences particularly in relation to fossil fuel industry support, notably before South Korea's ban on financing coal projects abroad (Youn et al. 2021; Lee 2021). Most recently, the ECAs have been in the spotlight for the decision to finance the Barossa gas project in Australia, with K-Sure further accused at a National Assembly audit session in 2022 of contravening international environmental regulations (ECA Watch 2022; Atkins 2022b).

We recommend KEXIM and K-Sure to consider a more precautionary approach by phasing out support to fossil fuel value chains. The ECAs should simultaneously strengthen their environmental and social policies, applying them more consistently across their entire portfolios, and communicating transparently to minimize any socio-economic and environmental risks that could threaten a just climate transition and broader sustainable development goals.

4.5. Dimension 5: Engagement - Outreach and 'pro-activeness' of ECAs and their governments

The fifth assessment dimension is underpinned by three key questions aimed at capturing the engagement and ambition of climate and sustainability policies of the government and its ECA in international fora as well as with national exporters and banks. This dimension is weighted with 10%.

In this assessment dimension, K-Sure and KEXIM are rated as 'Unaligned' with an assessment dimension sub-score of 0.33/3.00.

Q Nr.	Dimension 5 – key questions	Rating K-Sure	Rating KEXIM
5.1	To what extent does the institution itself or its government actively engage in relevant international fora (e.g., E3F, OECD, the Berne Union, WTO, or the World Economic Forum) to liaise with like-minded for ambitious climate policies in the export finance system?	Some progress	Some progress
5.2	To what extent does the institution itself or its government actively engage in relevant national fora with view to implementing ambitious climate policies in the (national) export finance system?	Unaligned	Unaligned
5.3	To what extent does the institution or its government actively engage with national companies to transform fossil fuel-related value chains and incentivize low GHG exports?	Unaligned	Unaligned

Q5.1: To what extent does the institution itself or its government actively engage in relevant international fora (e.g., OECD, the Berne Union, WTO, E3F or the World Economic Forum) to liaise with like-minded for ambitious climate policies in the export finance system?

This assessment question was scored with 'Some progress' for K-Sure and for KEXIM. This outcome is based on K-Sure's reporting on (i) active participation specifically in the deliberations for reform of the OECD Arrangement to limit financial assistance for new coal-fired power generation projects abroad and (ii) proposing to form a working group in response to climate risks at 46th OECD Practitioners' Meeting (K-Sure 2022). South Korea's second ECA, KEXIM, hosted a panel discussion at the annual climate conference COP26 in 2021 about the catalyst role and joint efforts of financial institutions for the climate regime (KEXIM 2022). Neither of the Korean ECAs is part of the Berne Union Climate Working Group which was launched in 2021 and aims at encouraging the development of innovative products, incentives, and financing opportunities; as well as promoting alignment around low-carbon methodologies; and to foster greater collaboration across the financial sector (Berne Union n.d.b). To the best of our knowledge, no evidence exists that KEXIM or K-Sure pro-actively exerted peer pressure against climate-related policy reform which is evaluated positively.

We recommend that the Korean government further strengthens its potential to lead the way for climate-re¬lated reform in the export finance system. More specifically, we recommend the Korean government to actively:

1. Consider participation in and alignment with the ambition set forth by 'coalitions of the willing', such as the E3F initiative.

2. Strategize with like-minded OECD Arrangement participants about how to achieve a transformative climate-related policy reform of the Arrangement, e.g., through adopting exclusions/restrictions for oil and gas export finance and achieve a 'level playing field'.

3. Deliberate with like-minded countries about forming a new 'level playing field' outside the OECD Arrangement to accelerate progress and typify the design of a Paris-aligned and sustainable international export finance regulation.

4. Enhance and publicly report on Korea´s position in international climate-related negotiations involving policies in the export finance system.

5. Enhancing and publicly reporting on progress on climate- and environmental diplomacy between the OECD and non-OECD members of the export finance system, through the IWG with China and G12 Heads of ECA meetings as well as through the Berne Union.

Q5.2: To what extent does the institution itself or its government actively engage in relevant national fora with view to implementing ambitious climate policies in the (national) export finance system?

Q5.2 was scored 'Unaligned' because no relevant engagement of K-Sure and KEXIM or the Korean government in national fora or comprehensive stakeholder dialogues aiming at the implementation of alignment of the national export finance system with the objectives of the Paris Agreement was found.

We recommend that the Korean government develops a national-level and government-wide strategy to fully align its entire export sector with the Paris Agreement, including – but not limited to – officially supported export finance. Suggested formats for such an exchange are roundtables concerning this specific question with the participation of local communities, CSOs, Korean exporters and research institutions. KEXIM and K-Sure should also closely collaborate with other relevant national actors, such as the Korean Development Bank and the Korea Investment Corporation (KIC), to align their approaches and work on a common set of climate targets.

Q5.3: To what extent does the institution or its government actively engage with national companies to transform fossil fuel-related value chains and incentivize low GHG exports?

This assessment question was scored with 'Unaligned' for both KEXIM and K-Sure. Overall, there is no evidence that KEXIM and K-Sure are actively engaging with existing national companies supporting less GHG-intensive activities or products or phasing out fossil fuel value chains. KEXIM has to a limited extent taken initial steps to engage with national companies to understand the opinions of exporters. For example, in 2019, KEXIM held a clean energy seminar "to help more Korean companies nurture the business potential of this [clean] evolving energy sector" (KEXIM 2019). Through the seminar, KEXIM was able to get impressions of the exporters towards the transition from fossil fuels to renewable energy e.g., on the role of LNG in the global energy transition. However, KEXIM has concurrently received criticism for its support to national companies promoting fossil fuels, such as SK E&S, in the Barossa gas project. Such initiatives can instead be used to engage customers in re-directing support to less GHG-intensive activities or providing specific support to companies that aim at exporting low-carbon technologies.

We recommend the Korean government to conduct national-level surveying to (i) understand the public attitude towards KEXIM and K-Sure continuing support for fossil fuels; and (ii) among exporters to identify the opinions, needs and opportunities that a phase out of support for fossil fuel value chains would give rise to. Such surveying has for instance already been conducted in a study by Bright Blue (Leming 2021) in the United Kingdom.

5. Conclusions and recommendations

In this study we applied a multidimensional methodology to assess the 'Paris alignment' of the Korea Trade Insurance Corporation (K-Sure) and the Export–Import Bank of Korea (KEXIM), the official ECAs operating on behalf of the Korean government. Each assessment dimension is underpinned by precise benchmarks of 'Paris alignment' that are informed by best practices in the global export finance system, peer-reviewed literature as well as experts that contributed to the methodology development (Shishlov et al. 2021). Both K-Sure and KEXIM were rated as 'Unaligned' across most of the 18 key questions within the five assessment dimensions.

Overall, to date, South Korea has been a laggard when it comes to Paris Alignment of its export finance system. Although South Korea announced its official moratorium on financing for overseas coal-burning plants, the country's KEXIM and K-Sure financing still gravitates toward oil and gas particularly through the shipping industry which has traditionally been one of the most important sectors of operation for the ECAs. Furthermore, South Korea ranks highly among the G20 members for its financial backing for fossil fuel projects. It is imperative for the ECAs to expand the exclusion policies to cover not only coal but also natural gas and oil and related value chains, as well as to increase transparency on their climate impacts. Best practices exist, like UKEF (the ECA in the United Kingdom) that recently phased out nearly all financial support to fossil fuels (Shishlov et al. 2022) and EDC (Canadian ECA), which has signed up to the Partnership for Carbon Accounting Financials (PCAF) and commits to tracking and disclosing its portfolio-related emissions in the near-term, i.e., within the next three years (Censkowsky et al. 2022).

Further, the declaration of LNG as a green 'transition' fuel in the K-Taxonomy will likely lock in South Korea and countries supported by its ECAs into a high carbon future. At the same time, South Korea's advanced technology innovation experience and potential, can play a role in climate technology transfer to emerging economies accelerate their transition toward greener economies, and act as a leading example for other countries in the region including Japan and China.

As the opportunity to keep global warming below 1.5°C is quickly slipping out of reach, South Korea should not miss the opportunity to join the international political momentum, e.g., by becoming a signatory of the Glasgow Statement on International Public Support for the Clean Energy Transition and joining the E3F coalition and engage on aligning export finance with the Paris Agreement. All recommendations for the Korean government and its ECAs are summarized per assessment dimension in Table 3 below.

Table 3: Summary of key recommendations per assessment dimension

Key recommendations for aligning K-Sure and KEXIM with the Paris Agreement	
Financial and non-financial disclosure and transparency (***Dimension 1***)	• Track and disclose GHG emission reporting in accordance with the international best practices, e.g., PCAF. • Disclosure of financial information of commitments outstanding (both project stock and flow) of all energy-related value chains. • Disclose fossil fuel and renewable energy finance across the value chains, e.g., using the E3F transparency reporting approach. • Fully support and report according to the recommendations made by the TCFD or, prospectively, the TCND
Ambition of fossil fuel exclusion or restriction policies (***Dimension 2***)	• Expand coal related exclusion policy to cover the entire coal value chain (mining, metallurgical coal, etc.). • Develop ambitious phase out policies for oil and natural gas and their related value chains.
Climate impact of and emission reduction targets for all activities (***Dimension 3***)	• Implement comprehensive GHG accounting (scope 1 - 3) as soon as possible. • Rapidly phase out of the financial support to fossil fuels. • Utilize a third-party to set science-based mitigation targets for all sectors consistent with Paris Agreement's long-term goals and to continuously monitor the implementation status, e.g., through the SBTi.
Contribution to a just climate transition and sustainable development (***Dimension 4***)	• Develop and disclose a clear definition of climate finance. • Adopt a common climate finance earmarking or develop a tailor-made approach. • Increase the support to renewables and climate-friendly activities, while reducing support to fossil fuels. • Define incentive mechanisms and price discrimination tools that would strengthen the support to mitigation and sustainable activities over carbon-intensive and unsustainable activities.
Outreach and 'pro-activeness' of the ECA and its governments (***Dimension 5***)	• Consider participation in and alignment with the ambition set forth by 'coalitions of the willing', such as the E3F initiative. • Strategize with like-minded OECD Arrangement participants about how to achieve a transformative climate-related policy reform of the Arrangement, e.g., through adopting exclusions/restrictions for oil and gas export finance. • Deliberate with like-minded countries about forming a new 'level playing field' outside the OECD Arrangement to accelerate progress and typify the design of a Paris-aligned and sustainable international export finance regulation. • Enhance and publicly report on Korea´s position in international climate-related negotiations involving policies in the export finance system. • Enhancing and publicly reporting on progress on climate- and environmental diplomacy between the OECD and non-OECD members of the export finance system, through the IWG with China and G12 Heads of ECA meetings as well as through the Berne Union.

Note: Please refer to the respective sections above for fully detailed recommendations.

6. References

Aldag, Ramon J. (2023): Chaebol: South Korean corporate conglomerates, https://www.britannica.com/topic/conglomerate-business (accessed March 6, 2023)

Atkins, Jacob (2022a): KEXIM, K-Sure face legal action over Australian LNG financing, Global Trade Review, March 30, 2022, https://www.gtreview.com/news/asia/kexim-k-sure-face-legal-action-over-australian-lng-financing/ (accessed March 6, 2023)

Atkins, Jacob (2022b): South Korea dismisses challenge to Australian gas project financing, Global Trade Review, May 25, 2022, https://www.gtreview.com/news/asia/south-korea-dismisses-challenge-to-australian-gas-project-financing/ (accessed March 6, 2023)

Atradius DSB (2021): Jaaroverzicht 2020 [Annual Report 2020], Amsterdam, https://atradiusdutchstatebusiness.nl/nl/documenten/atradiusdsb_jaaroverzicht_2020.pdf (accessed March 13, 2023)

Averchenkova, Alina; Bhattacharya, Amar; Calland, Richard; González, Lorena; Martinez-Diaz, Leonardo; van Rooij, Jerome (2020): Delivering on the 100 billion climate finance commitment and transforming climate finance, The Independent Expert Group on Climate Finance

Bachinger, Magdalena; Ryfisch, David; Voß, Martin; Oh, Dongjae; Park, Sohveon (2022): National Development Banks and the Climate Crisis. Aligning German and Korean export and Development finance with 1.5°C, https://21220177.fs1.hubspotusercontent-na1.net/hubfs/21220177/National%20Development%20Banks%20and%20the%20Climate%20Crisis.pdf (accessed March 6, 2023)

BankTrack (2021): Vung Ang II: coal power plant. Vietnam, https://www.banktrack.org/project/vung_ang_ii_thermal_power_plant_vietnam (accessed March 8, 2023)

Berne Union (n.d.a): Berne Union Members, https://www.berneunion.org/Members (accessed March 6, 2023)

Berne Union (n.d.b): Climate Working Group, https://www.berneunion.org/Stub/Display/234 (accessed March 6, 2023)

Berne Union (2021): Export Credit & Investment Insurance Industry Report 2020, Berne Union, London

Berne Union (2022): Export Credit & Investment Insurance Industry Report 2021, Berne Union, London

Boulle, Bridget; Peck, Kwangyul (2018): Korea climate bond market. Overview and opportunities, https://www.climatebonds.net/files/files/CBI-Korea_Market-Final-01A.pdf (accessed March 6, 2023)

Bpifrance (2020): Déclaration de performance extra-financière 2020 [Non-financial performance declaration], Bpifrance, Maisons-Alfort

Buth, Vanessa (2021): Decarbonising Danish Export Credits, VedvarendeEnergi and Just Finance, Aarhus

Censkowsky, Philipp; Shishlov, Igor; Darouich, Laila (2022): Paris alignment of Export Credit Agencies: The case of the Canada (Export Development Canada), Perspectives Climate Research, Freiburg

Cha, Sangmi (2020): South Korea's Moon targets carbon neutrality by 2050, Reuters, October 28, 2020 https://www.reuters.com/article/us-southkora-environment-greenewdeal-idUSKBN27D1DU (accessed March 6, 2023)

Climate Change Laws of the World (n.d.): Framework Act on Low Carbon Green Growth, regulated by Enforcement Decree of the Framework Act on Low Carbon Green Growth, https://www.climate-laws.org/geographies/south-korea/laws/framework-act-on-low-carbon-green-growth-regulated-by-enforcement-decree-of-the-framework-act-on-low-carbon-green-growth (accessed March 6, 2023)

Club de Paris (2021): Definition of debt treated, https://clubdeparis.org/en/communications/page/definition-of-debt-treated (accessed March 13, 2023)

Cook, Kate; Viñuales, Jorge E. (2021): International obligations governing the activities of export credit agencies in connection with the continued financing of fossil fuel-related projects and activities, http://priceofoil.org/content/uploads/2021/05/Legal-opinion-K.-Cook-_-J.-Vinuales-FINAL.pdf (accessed March 6, 2023)

COP26 (2021): Statement on international public support for the clean energy transition, https://ukcop26.org/statement-on-international-public-support-for-the-clean-energy-transition/ (accessed March 6, 2023)

DeAngelis, Kate; Tucker, Bronwen (2021): Past Last Call – G20 public finance institutions are still bankrolling fossil fuels, Oil Change International and Friends of the Earth US, Washington DC

E3F (2022): E3F Transparency Reporting, https://www.ekn.se/globalassets/dokument/styrning/en/e3f_transparency_report_2022.pdf.pdf/ (accessed August 24, 2022)

ECA Watch (2022): South Korean ECAs challenged during National Assembly session about Barossa Project, https://www.eca-watch.org/publications/newsletter-items/south-korean-ecas-challenged-during-national-assembly-session-about (accessed March 6, 2023)

EKF (2021): Annual Report 2021, Eksport Kredit Fonden, København

Fitch Ratings (2022): Fitch Affirms Export-Import Bank of Korea at 'AA-'; Outlook Stable, https://www.fitchratings.com/research/banks/fitch-affirms-export-import-bank-of-korea-at-aa-outlook-stable-23-05-2022 (accessed March 6, 2023)

G7 Germany (2022): G7 Leaders' Communiqué, Elmau, June 28, 2022, https://www.g7germany.de/resource/blob/974430/2062292/9c213e6b4b36ed1bd687e82480040399/2022-07-14-leaders-communique-data.pdf?download=1 (accessed March 10, 2022)

GGGI (2021): GGGI signed an MoU with Export-Import Bank of Korea (KEXIM) to expand support for climate change responses of developing countries, https://gggi.org/gggi-signs-an-mou-with-export-import-bank-of-korea-kexim-to-expand-support-for-climate-change-responses-in-developing-countries/ (accessed March 6, 2023)

Goldman Sachs (2007): Beyond the BRICs: A look at the 'Next 11', https://www.goldmansachs.com/insights/archive/archive-pdfs/brics-book/brics-chap-13.pdf (accessed March 6, 2023)

Gondjian, Garnik; Merle, Cedric (2020): France's strategy on export financing: a stick and carrot approach with fossil fuels funding phasing out and a supporting factor for EU Taxonomy compliant activities, Natixis, November 30, 2020, https://gsh.cib.natixis.com/our-center-of-expertise/articles/france-s-strategy-on-export-financing-a-stick-and-carrot-approach-with-fossil-fuels-funding-phasing-out-and-a-supporting-factor-for-eu-taxonomy-compliant-activities (accessed June 7, 2021)

Government of the Netherlands (2021): Biijlage – Meetmethodiek Fossiel, https://www.rijksoverheid.nl/documenten/kamerstukken/2021/07/09/bijlage-meetmethodiek-fossiel (accessed March 6, 2023)

Gütschow, J.; Pflüger, M. (2022): The PRIMAP-hist national historical emissions time series v2.4 (1750-2021). zenodo. doi:10.5281/zenodo.7179775.Gütschow (accessed March 6, 2023)

Hale, Thomas; Klasen, Andreas; Ebner, Norman; Krämer, Bianca; Kantzelis, Anastasia (2021): Towards Net Zero export credit: Current approaches and next steps, BSG Working Paper Series, Blavatnik School of Government, Oxford

Hyun-woo, Nam (2022): 'Export insurance agreement to safeguard Korea-UAE hydrogen projects', The Korean Times, January 25, 2022, https://www.koreatimes.co.kr/www/nation/2022/01/120_322772.html (accessed March 6, 2023)

IEA (n.d.): Korea, https://www.iea.org/countries/korea (accessed March 6, 2023)

IEA (2021): Net Zero by 2050 - a roadmap for the global energy sector, International Energy Agency, Paris

Impact Principles (n.d.): The 9 principles, https://www.impactprinciples.org/9-principles (accessed March 6, 2023)

IPCC (2018): Special Report – Global Warming of 1.5°C, Intergovernmental Panel on Climate Change, https://www.ipcc.ch/sr15/chapter/spm/ (accessed January 25, 2022)

International Monetary Fund (2022): World Economic Outlook Database: October 2022, https://rb.gy/1cyv2a (accessed March 6, 2023)

Korea Legislation Research Institute, KLRI (n.d.): Enforcement Decree of the Framework Act on Low Carbon, Green Growth, https://elaw.klri.re.kr/eng_service/lawView.do?hseq=46601&lang=ENG (accessed March 6, 2023)

K-Sure (n.d.a): Profile. Korea Trade Insurance Corporation, https://www.ksure.or.kr/rh-en/cntnts/i-615/web.do (accessed March 6, 2023) (accessed March 6, 2023)

K-Sure (n.d.b): Environmental and Social Review, https://www.ksure.or.kr/rh-en/bbs/i-681/list.do (accessed March 6, 2023)

K-Sure (2020): Annual Report 2019, Korea Trade Insurance Corporation, Seoul

K-Sure (2021): Annual Report 2020, Korea Trade Insurance Corporation, Seoul

K-Sure (2021a): 2021- K-Sure Sustainability Report, Korea Trade Insurance Corporation, Seoul

K-Sure (2022): Annual Report 2021, Korea Trade Insurance Corporation, Seoul

KEXIM (n.d.a): Purpose of Establishment, https://www.koreaexim.go.kr/he/HPHEBI001M01 (accessed March 6, 2023)

KEXIM (n.d.b): Export Credit and Environmental Review, https://www.koreaexim.go.kr/he/ir/HPHEIR033M01%22%20/l%20%22tab52 (accessed March 6, 2023)

KEXIM (n.d.c): ESG Strategy, https://www.koreaexim.go.kr/he/HPHEOM014M01 (accessed March 6, 2023)

KEXIM (n.d.d): ESG Roadmap, https://www.koreaexim.go.kr/he/HPHEOM015M01 (accessed March 6, 2023)

KEXIM (n.d.e): ESG Investment, https://www.koreaexim.go.kr/he/HPHEOM020M01 (accessed March 6, 2023)

KEXIM (n.d.f): Environmental Management, https://www.koreaexim.go.kr/he/HPHEOM026M01 (accessed March 6, 2023)

KEXIM (n.d.g): ESG Organizational Structure, https://www.koreaexim.go.kr/he/HPHEOM017M01 (accessed March 6, 2023)

KEXIM (n.d.h): EDCF, https://www.koreaexim.go.kr/he/HPHEOM001M01 (accessed March 6, 2023)

KEXIM (2020): Annual Report 2019, Korea Export-Import Bank, Seoul

KEXIM (2021): Annual Report 2020, Korea Export-Import Bank, Seoul

KEXIM (2022): Annual Report 2021, Korea Export-Import Bank, Seoul

K-Sure (2022): Annual Report 2021, Korea Trade Insurance Corporation, Seoul Kim, Tae-han; Lee, Da-yeon; Kwon, Jeong-hyeon; Lee, Jong-oh (2021): Coal finance in Korea: Changes in 2021 and Next Steps. 2021 White Paper on Korea's Coal Finance, https://kosif.org/wp-content/uploads/mangboard/2022/09/22/F818_2021%20Coal%20Finance%20in%20Korea.pdf (accessed March 6, 2023)

Kim, Yun-Hwan (1994): The role of government in export expansion in the Republic of Korea: A revisit, https://www.adb.org/sites/default/files/publication/28173/rs61.pdf (accessed March 6, 2023)

Kim, Tae-han; Lee, Da-yeon; Kwon, Jeong-hyeon; Lee, Jong-oh (2021): 2021 White Paper on Korea's Coal Finance, Coal Finance in Korea : Changes in 2021 and Next Steps, https://kosif.org/wp-content/uploads/mangboard/2022/09/22/F818_2021%20Coal%20Finance%20in%20Korea.pdf (accessed March 6, 2023)

Lee, Seulki (2021): South Korea faces a public reckoning for financial coal plants in Indonesia, Mongabay, April 15, 2021, https://news.mongabay.com/2021/04/south-korea-faces-a-public-reckoning-for-financing-coal-plants-in-indonesia/ (accessed March 6, 2023)

Leming, Andrew (2021): Toward Green Export Finance? Investigating the views of UK exporting firms towards UKEF, Bright Blue http://www.brightblue.org.uk/toward-green-export-finance/ (accessed March 6, 2023)

LSE (n.d.): Framework Act on Low Carbon Green Growth, regulated by Enforcement Decree of the Framework Act on Low Carbon Green Growth, https://www.climate-laws.org/geographies/south-korea/laws/framework-act-on-low-carbon-green-growth-regulated-by-enforcement-decree-of-the-framework-act-on-low-carbon-green-growth (accessed March 6, 2023)

MIGA; AfDB; ADB; AIIB; EBRD; EIB; IDBG; ISDB; NDB; WBG (2021): Joint Report on Multilateral Development Banks Climate Finance, MIGA, https://www.miga.org/sites/default/files/2021-08/2020-Joint-MDB-report-on-climate-finance_ Report_final-web.pdf (accessed August 30, 2022)

MOEF (2020): Government Releases an English Booklet on the Korean New Deal, https://english.moef.go.kr/pc/selectTbPressCenterDtl.do?boardCd=N0001&seq=4948 (accessed March 6, 2023)

MoFA (n.d.): Energy, https://www.mofa.go.kr/eng/wpge/m_5657/contents.do (accessed March 6, 2023)

MOITE (2014): Korea Trade Insurance Corporation (K-sure), http://english.motie.go.kr/en/tp/alltopics/bbs/bbsView.do?bbs_seq_n=14&bbs_cd_n=3#page2 (accessed March 6, 2023)

Molnár, Boglárka; Frizis, Iakov; Van Hummelen, Stijn; Stenning, Jon (2022): Export credit support in the Netherlands: fossil phase out and job impacts, Cambridge Econometrics, Cambridge

OEC (2022): South Korea, https://oec.world/en/profile/country/kor (accessed March 6, 2023)

OECD (n.d.a): Export credits, https://www.oecd.org/trade/topics/export-credits/ (accessed March 6, 2023)

OECD (n.d.b): Export credit statistics, https://www.oecd.org/trade/topics/export-credits/statistics/ (accessed March 6, 2023)

OECD (n.d.c): Export credits, https://www.oecd.org/trade/topics/export-credits/ (accessed March 6, 2023)

OECD (2021a): Agreement reached at OECD to end export credit support for unabated coal-fired power plants, https://www.oecd.org/newsroom/agreement-reached-at-oecd-to-end-export-credit-support-for-unabated-coal-fired-power-plants.htm (accessed March 6, 2023)

OECD (2021b): Climate Finance Provided and Mobilised by Developed Countries: Aggregate trends updated with 2019 data, Climate Finance and the USD 100 Billion Goal, OECD Publishing, Paris

OECD (2022a): Investment treaties and climate change, The Alignment of finance flows under the Paris Agreement, https://www.oecd.org/investment/investment-policy/oecd-background-investment-treaties-finance-flow-alignment.pdf (accessed June 6, 2022)

OECD (2022b): Climate Finance and the USD 100 Billion Goal, https://www.oecd-ilibrary.org/finance-and-investment/climate-finance-provided-and-mobilised-by-developed-countries-in-2016-2020_286dae5d-en (accessed March 6, 2023)

Oil Change International (2021): The Shift the Subsidies Database, Version Fall 2021, Washington DC

O'Manique, Claire; Tucker, Bronwen; DeAngelis, Kate (2022): At a Crossroads: Assessing G20 and MDB international energy finance ahead of stop funding fossils pledge deadline. Friends of the Earth, Washington, DC https://priceofoil.org/content/uploads/2022/11/G20-At-A-Crossroads.pdf (accessed March 6, 2023)

Operating Principles for Impact Management (n.d.): The 9 Principles, https://www.impactprinciples.org/9-principles (accessed March 6, 2023)

PCAF (n.d.a): The Global GHG Accounting and Reporting Standard for the Financial Industry, https://carbonaccountingfinancials.com/standard (accessed March 6, 2023)

PCAF (n.d.b): Financial institutions taking action, https://carbonaccountingfinancials.com/en/financial-institutions-taking-action#overview-of-financial-institutions (accessed March 6, 2023)

PPCA (2021): New PPCA members tip the scales towards 'Consigning goal to history' at COP26, https://poweringpastcoal.org/news/new-ppca-members-tip-the-scales-towards-consigning-coal-to-history-at-cop26/ (accessed March 6, 2023)

Republic of Korea (2021a): The Republic of Korea's Enhanced Update of its First Nationally Determined Contribution, https://unfccc.int/sites/default/files/NDC/2022-06/211223_The%20Republic%20of%20Korea%27s%20Enhanced%20Update%20of%20its%20First%20Nationally%20Determined%20Contribution_211227_editorial%20change.pdf (accessed March 6, 2023)

Republic of Korea (2021b): Setting milestones for carbon neutrality by 2050, https://tinyurl.com/58p5yk56 (accessed March 6, 2023)

Reuters (2021): S.Korea's Moon vows to end new funding for overseas coal projects, April 22, 2021, https://www.reuters.com/article/global-climate-summit-southkorea-idUSL4N2MF3R2 (accessed March 6, 2023)

Securities and Exchange Commission, SEC (2014): The Export-Import Bank of Korea. Debt Securities, https://www.sec.gov/Archives/edgar/data/873463/000119312514281469/d689902dposam.htm#toc689902_3 (accessed March 6, 2023)

Shishlov, Igor; Weber, Anne-Kathrin; Stepchuk, Inna; Darouich, Laila; Michaelowa, Axel (2020): External and internal climate change policies for export credit and insurance agencies, Perspectives Climate Research, Freiburg

Shishlov, Igor; Censkowsky, Philipp; Darouich, Laila (2021): Aligning Export Credit Agencies with the Paris Agreement, Perspectives Climate Research, Freiburg

Shishlov, Igor; Censkowsky, Philip (2022): Definitions and accounting of climate finance: between divergence and constructive ambiguity, Climate Policy, 22:6, p. 798-816

Tachev, Viktor (2022): South Korean Green Taxonomy Declared 'Gas is Green', Energy Tracker Asia, 14 January 2022, https://energytracker.asia/south-korean-green-taxonomy-declared-gas-is-green/ (accessed March 6, 2023)

Tienhaara, Kyla; Thrasher, Rachel; Alexander Simmons, B; Gallagher, Kevin P. (2022): Investor-state disputes threaten the global green energy transition, in: Sciences, 376, p.701-703

TNFD (n.d.): Who we are, https://tnfd.global/about/ (accessed March 6, 2023)

Trésor, DG (2021): Seven countries launch international coalition "Export Finance for Future" (E3F) to align export finance with climate objectives, https://www.tresor.economie.gouv.fr/Articles/2021/04/14/seven-countries-launch-international-coalition-export-finance-for-future-e3f-to-align-export-finance-with-climate-objectives (accessed March 6, 2023)

United Nations Environment Programme, UNEP (2021): Emissions Gap Report 2021: The Heat Is On - A World of Climate Promises Not Yet Delivered, UNEP, Nairobi

UNFCCC (2015): Paris Agreement, https://unfccc.int/sites/default/files/english_paris_agreement.pdf (accessed March 6, 2023)

Vivid Economics (2020): UK Export Finance and domestic jobs, https://www.vivideconomics.com/casestudy/uk-exportfinance-and-domestic-jobs/ (accessed January 25, 2022)

Wenidoppler, Thomas (2017): ECAs go to market - A critical review of transparency and sustainability at seven export credit agencies in Central and Eastern Europe, CEE Bankwatch Network, Austria

World Bank (2021a): Exports of goods and services (current US$) - Korea, Rep., https://data.worldbank.org/indicator/NE.EXP.GNFS.CD?locations=KR (accessed March 6, 2023)

World Bank (2021b): Exports of goods and services (% of GDP) - Korea, Rep., https://data.worldbank.org/indicator/NE.EXP.GNFS.ZS?locations=KR (accessed March 6, 2023)

Youn, Sejong; Oh, Dongjae; Peng, Yuan; Song, Jeeyeon (2021): Fueling the Climate Crisis: South Korea's Public Financing for Oil and Gas, https://forourclimate.org/hubfs/%5BENG%5DFueling%20the%20Climate%20Crisis_South%20Korea_s%20Public%20Financing%20for%20Oil%20and%20Gas-1.pdf (accessed March 6, 2023)

perspectives climate research

CONTACT

Perspectives Climate Research gGmbH Freiburg
Hugstetter Strasse 7 | 79106
Freiburg | Germany
Phone: +49 761 590 33 823

Local representatives:
Austria: Kitzbuehel, Italy: Milan, Germany: Berlin | Cologne | Hamburg | Freiburg, Spain: Barcelona | Valencia | Switzerland: Zurich, Finland: Helsinki

info@perspectives.cc
www.perspectives.cc