



Climate
Disclosure
Standards
Board



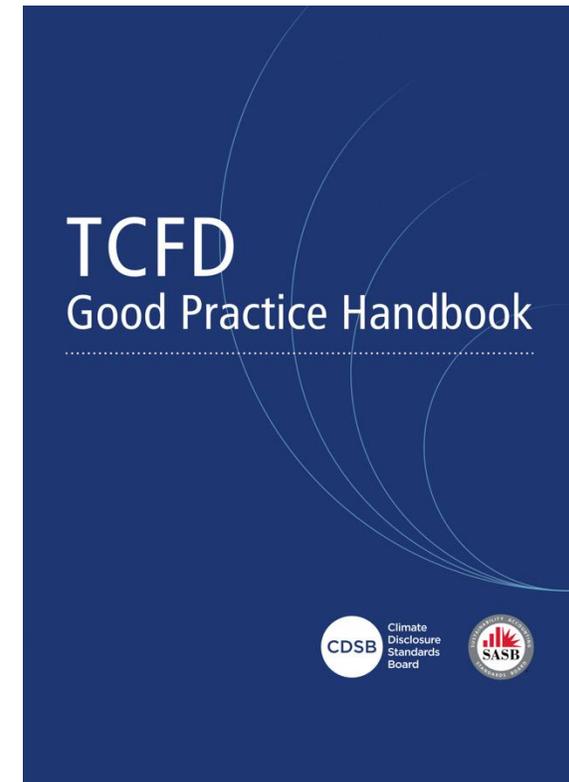
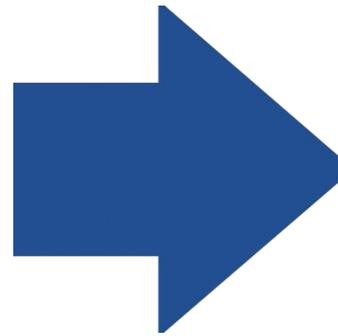
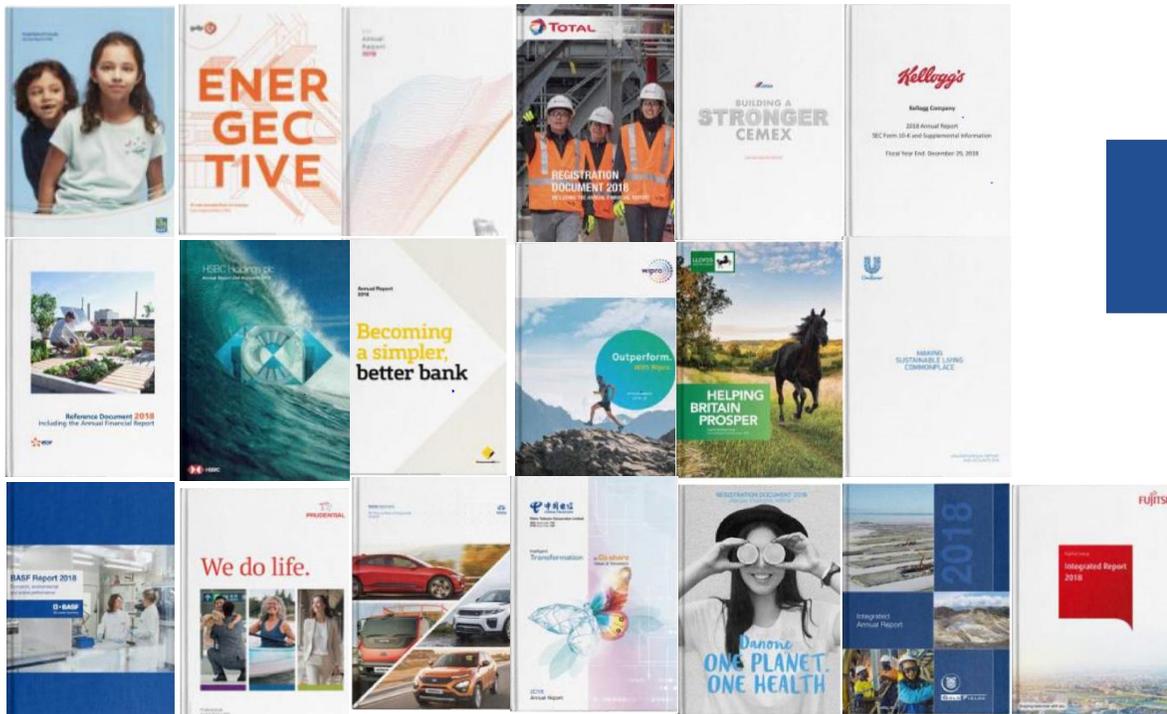
ハンドブックに基づく具体的な開示事例の解説

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TCFD Good Practice Handbook (Launched September 23, 2019)

Annual reports from across the G20





In this succinct extract, the Canadian mining company Barrick states which board-level committee is responsible for overseeing policies, programmes and performance related to climate change. It states that this committee met quarterly, although it could be made explicit whether climate change featured on the agenda of each of these meetings.

This governance disclosure on board oversight also helpfully explains the roles of both the audit and risk committees and their interface with the company's Board, which is not always clear in other governance disclosures.

The disclosure also states that climate change is built into the company's formal risk management process. This shows the interconnectivity of the governance and risk management core TCFD elements and associated disclosures, with the two TCFD governance disclosures covering who in the business is involved and the risk management disclosures covering what processes are used to manage and monitor the associated climate-related risks.

Throughout 2018, the Board's Corporate Responsibility Committee, which met quarterly, was responsible for overseeing Barrick's policies, programs, and performance relating to the environment, including climate change. The Risk Committee assisted the Board in overseeing the Company's management of enterprise risks as well as the implementation of policies and standards for monitoring and mitigating such risks. Climate change is built into our formal risk management process, outputs of which were reviewed by the Risk Committee throughout 2018 (as of January 1, 2019, this Committee has been combined with the Audit Committee). In addition, the Audit Committee reviewed the Company's approach to climate change in the context of Barrick's public disclosure.

Bar Prudential, We do life: Annual Report 2018

(pg. 76-77)



Prudential, a British multinational life insurance and financial services company, provides an in-depth discussion of its climate-related performance. When discussing its Scope 1, 2, and 3 emissions, Prudential specifically notes the scope and methodology utilised to calculate its Scope 3 emissions related to the air travel of its employees. Prudential also provides in-depth discussion on its Scope 2 emissions, which make up the majority of its overall emissions.

Prudential has also established a target with a base year of 2018 to achieve 100% renewable electricity by 2025 across its occupied and management investment estates.

Prudential Group Scope 1 and 2 GHG Emissions

We achieved a ranking of B in the 2018 CDP Climate Change disclosure benchmark, and in ClimateWise, the insurance sector climate initiative managed by the Cambridge Institute for Sustainability Leadership, we improved our score, achieving 78 per cent (2017: 72 per cent). Our performance in ClimateWise against six core principles is independently audited by PwC.

As a Group, we signed up to RE100 in 2018 to achieve 100 per cent renewable electricity by 2025 across our occupied and managed investment estates. 30 per cent of our global electricity consumption is procured from 100 per cent certified renewable sources (solar PV and on-shore wind). Our Group Scope 2 (market based) emissions are independently assured by Deloitte. Looking ahead, we will develop roadmaps in 2019 for the demerged businesses to set out strategies to achieve this target, on a country-by-country basis.

As our business becomes increasingly global, we recognise the importance of understanding the impact of air travel on our overall corporate carbon footprint. We have collated air travel data internally across all three regions for the first time. We have elected to disclose Scope 3 GHG emissions data from air travel for the UK and Europe business unit. This amounted to 21,622 tCO₂e, representing a 50 per cent increase over preliminary estimates (2017: 14,413 tCO₂e). The scope of this data now includes air travel from our sites in the UK, Japan, Kenya, Poland and Zambia, which are controlled by the UK and Europe business unit.

Our combined reported and unreported carbon footprint from air travel is a significant contribution to our overall emissions. Therefore, as part of a holistic approach to the management of our climate impacts, we will focus management effort on reducing the need for travel through the deployment of digitally enabled office working practices and offsetting emissions from unavoidable flights as final mitigation. Plans will be developed in 2019 to establish a CO₂ offsetting programme for air travel emissions.

It notes that it has had its Scope 2 group emissions independently assured, enhancing investor confidence in the reliability of the reported data.

In its data table, Prudential reports its Scope 1, 2 and 3 emissions and breaks down such emissions by both its occupied estate as well as its investment estates. Prudential's previously discussed focus on its Scope 2 emissions are supported by the relatively high degree to which such emissions contribute to its overall emissions. Prudential also reports several normalised metrics, using factors to establish efficiency ratios that can enhance comparability across companies to the extent such ratios are generally accepted.

Emissions source (tCO ₂ e)		2018	2017	% Change
Scope 1	Occupied estate ¹	9,191	10,494	-12%
	Investment properties	7,711	7,703	0%
Scope 2 – Location-based	Occupied estate ¹	56,554	61,154	-8%
	Investment properties	15,281	18,751	-19%
Scope 2 – Market-based (supplier and residual mix)	Occupied estate ¹	52,127	55,484	-6%
	Investment properties ¹	5,459	7,237	-25%
Scope 3	Group ¹	22,545	15,306	+47%
Scope 1 and Scope 2*	Occupied estate	61,318	65,979	-7%
	Investment estate	13,170	14,940	-12%
Total Scope 1 and 2*	Group	74,488	80,919	-8%
Total Scope 1, 2 and 3*	Group	97,032	96,225	+1%
Carbon intensity*		2018	2017	% Change
kg CO₂e per m² – Scope 1 and 2 only	Group ¹	24	29	-17%
kg CO₂e per employee – Scope 1 and 2 only	Group ¹	3.1	3.2	-3%
kg CO₂e per m² – Scope 1, 2 and 3	Group ¹	32	34	-8%

* Note that when reporting Group totals, the market-based emission is used.

In this table, INPEX clearly lists risks and opportunities impacting its business related to climate-related factors. INPEX identifies the risk/opportunity category, the risks and opportunities covered, as well as the management/initiatives status associated with each risk.

INPEX categorizes risks by the categories defined the TCFD Recommendations report, including transition risks, physical risks, and opportunities. INPEX also clearly lists the timeframe over which it expects the risk will manifest – including medium-term (2022) and long-term (2040)

For each category of risk, and for each timeframe, INPEX succinctly describes the specific risk channels to which it is exposed, as well as its management/initiatives designed to manage and/or mitigate each risk.

リスク・機会の分類	リスク及び機会の評価対象	管理・取組状況	
移行リスク	中期 (～2022年)	<ul style="list-style-type: none"> 排出量・排出原単位に係るレピュテーションリスク ステークホルダーから石油・天然ガス業界に対するカーボンバジェットへの対応要求が高まるリスク 情報開示が不十分とみなされるリスク 	<ul style="list-style-type: none"> 操業からの排出量の適切な管理に取り組む 全社的な排出量管理目標の設定に取り組む TCFD提言に沿った情報開示に持続的に取り組む
	長期 (～2040年)	<ul style="list-style-type: none"> プロジェクト所在国でカーボン価格政策が導入されることで、財務コストが増加するリスク 各国の気候変動政策が強化され、石油需要の増加が見込みにくい事業環境が継続するリスク 再生可能エネルギー・EV等の技術進展により、石油需要の増加が見込みにくい事業環境が継続するリスク 市場のエネルギー選択の変化により、生産コストが高い石油・天然ガスプロジェクトの開発が困難になるリスク 	<ul style="list-style-type: none"> カーボン価格政策の動向をモニタリングしている インターナショナルカーボンプライスによる感応度分析を実施している CCSの実用化技術の強化に取り組む シナリオを活用した政策・技術・市場動向の分析に取り組む 天然ガスの開発促進・普及拡大に取り組む 再生可能エネルギーへの取組を強化する 石油・天然ガス上流事業の生産コスト削減に取り組む 油価50ドル/バレルの継続時にも、安定した事業運営が可能な体制の維持に取り組む
物理的リスク	長期 (～2040年)	<ul style="list-style-type: none"> 異常気象の増加がプロジェクトの操業に影響を与えるリスク 平均気温の上昇、降雨パターンの変化及び海面上昇がプロジェクトの操業に影響を与えるリスク 	<ul style="list-style-type: none"> イクシスLNGプロジェクトでは、洋上施設的设计は大規模なサイクロンの影響を考慮しており、陸上施設の配置については海面上昇を考慮している 全社的な物理的リスクの評価・管理体制の整備に取り組む
機会	中期 (～2022年)	<ul style="list-style-type: none"> 低炭素製品・サービスの開発及び普及への取組 	<ul style="list-style-type: none"> 天然ガスの開発促進、普及拡大に取り組む 再生可能エネルギーへの取組を強化する 全社的な機会の評価・管理体制を整備する
	長期 (～2040年)	<ul style="list-style-type: none"> 低炭素製品・サービスの開発及び普及への取組 R&D、及び技術革新を通じた新商品・サービスの開発への取組 	<ul style="list-style-type: none"> ポートフォリオの1割を再生可能エネルギー事業に CCSの実用化に向けた技術開発に取り組む 蓄電池、人工光合成、微生物を利用したメタン再生などの再生可能エネルギー分野に関連する研究開発を継続する



In another table, INPEX shows the scenarios it considered when preparing its low-carbon transition plan. These scenarios include the IEA New Policies Scenarios as a reference plan, but additionally includes three company-defined scenarios to assess the resilience of its strategies across a range of scenarios.

INPEX lists several scenarios designed to test the resiliency of its forward strategy. It notes that it considers scenarios that include additional demand for renewable energy and electric vehicles, as well as one featuring stronger climate-change policies from various nations.

Elsewhere in this section, INPEX discloses specific financial impacts associated with these scenarios, including how this affects its medium-term business plan assumptions around oil prices.

当社の低炭素社会シナリオ

シナリオ (2040年まで)	政策強化のレベル	技術進展のレベル
IEA新政策シナリオ	2025年以降も現NDC ^④ のトレンド維持	各国の現NDC及び発表済の技術進展レベル
技術進展シナリオ	2025年以降も現NDCのトレンド維持	太陽光・風力発電及びEVが、技術進展によるコスト低下により、IEA新政策シナリオ以上に普及
ウェイクアップシナリオ	2025年に現NDCが大幅に強化される	2025年まではIEA新政策シナリオの技術進展レベルだが、以降は2°Cシナリオの技術進展レベルに
2°Cシナリオ	2020年に現NDCが大幅に強化される	技術進展により、太陽光・風力発電及びEVの普及に加え、省エネ及びCCSが排出削減に大きく寄与



ガバナンス

〈みずほ〉は、2018年度業務計画（取締役会にて決議）策定にあたり、気候変動を含む社会課題に係る機会とリスクを整理し、取組計画を定めて、定期的に進捗を管理しています。また、2018年4月、経営会議審議を経て、石炭火力発電等の特定セクターに対する取組方針を制定しました。また、同年6月、監査委員会で責任ある投融資等の管理態勢強化について報告しました。

Mizuho includes a description of the role of the Board as well as management's role in risk oversight related to social and climate-related factors, including the creation of risk-specific policies. In addition, it notes the role of the Audit Committee.

Here, Mizuho specifically lists targets it has set for Scope 1 and Scope 2 GHG emission reductions, including the year in which the target was set, the period over which the target is valid.

指標・目標

以下の通り、環境負荷低減目標の設定や指標管理を実施しており、SBT（科学的根拠に基づく目標）の設定に向け、引き続き検討を進めていきます。

- 目標** 国内事業所における電力使用量由来のCO₂排出量原単位 (CO₂排出量/延床面積)
- 長期 ▶ 2030年度に2009年度比 19.0%削減 中期 ▶ 2020年度に2009年度比 10.5%削減
- 指標**
- Scope1(直接)・Scope2(間接)のCO₂排出量とエネルギー使用量
 - Scope3 新規の大規模発電プロジェクトに関する環境負荷 (CO₂排出寄与量)