Balancing the Books & the Planet

## Accountants / CFOs/Auditors Key Role in Sustainability

Confluence AIC 2023

10<sup>th</sup> December 2023



Historical changes in atmospheric carbon dioxide is heating our world

200-300 parts per million

800,000 years before 1950 ~300 parts per million

1950

~420 parts per million

2023

Source: climate.nasa.gov; co2levels.org

## **Resulting in extreme weather events**

#### **Heatwaves**

• Europe (2003, 2006, 2022)



#### Droughts

• Horn of Africa (2020 – 2023)



#### **Rise in Sea levels**

• India (2014, 2015, 2017, 2018, 2020, 2022, 2023)

Floods



• China, Bangladesh, India, Egypt, the Netherlands, the United States, Brazil, Australia, New Zealand





Brazil, Bolivia, Peru, Paraguay (2019 Amazon rainforest wildfires)



#### **Biodiversity Loss**

• Countries including Australia, Israel, South Africa, India and Spain



Globally, floods, extreme rainfall events, droughts, now occur 4 times more often than in 1980.

## Climate related risks are increasingly perceived as highly likely and impactful over the years



(weforum.org); WEF The Global Risks Report 2021.pdf (weforum.org)

# The number of climate disasters is expected to triple for the new generation

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Frequency of climate disasters experienced in a lifetime for a person born in 2020 compared to one born in 1960



All Climate disasters ~3 times as many

Based on NDC scenario (following Paris Agreement) of 2.7°C/4.9 °F Warming until 2100 Source: Thiery et al. Intergenerational Inequities in Exposure to Climate Change Science (2021) via media reports Source: IPCC

#### The Top 10 emitters account for 64.2% of annual GHG emissions

Total greenhouse gas emissions (Mt of CO <sub>2</sub> equivalent)						
		World	53,786		GHG emission per capita (t CO2eq/cap/yr)	
1		China	15,685	29.2%	11	
2		United States	6,017	11.2%	18	
3	٢	India	3,943	7.3%	3	
4	$\bigcirc$	Russia	2,580	4.8%	18	
5	0	Brazil	1,310	2.4%	6	4
6	$\bigcirc$	Indonesia	1,241	2.3%	4	<b>10p</b> 53 54.9%
7	ig)	Japan	1,183	2.2%	9	
8	•	Iran	952	1.8%	11	
9	۲	Mexico	820	1.5%	6	
10	\$3313	Saudi Arabia	811	1.5%	23	
						Top 10 64.2%

The agriculture sector is responsible for about 1/3 of greenhouse gas emissions (incl. transport)



Source: EDGAR - Emissions Database for Global Atmospheric Research

+1.3°C Warming in 2023

+1.5°C Paris Agreement Goal

**+2.0**°C 2100 Max Limit

As global temperatures increase, the climate adversity worsens

#### Our warming projections are still above the Paris Agreement Goal

Our warming estimate from current policies is 2.9°C - still nearly twice what it should be, and we all need to urgently step up our actions, with major commitments from the government sectors (e.g., NDCs)



### The Climate crisis calls for refocus on Sustainability...

- Integration of environmental health, social equity and economic vitality in order to create thriving, healthy, diverse and resilient communities for this generation and generations to come.
- Sustainability is to create and maintain the conditions under which humans and nature can co-exist in productive harmony to support present and future generations.



## Enforced through an Environmental, Social and Governance framework

How will our business adapt to climate change? How ready are we?

human rights? Do we pay fairly?

#### **ENVIRONMENTAL**

Considers how a company performs as a steward of nature

Greenhouse Gas Emissions ("GHG")

**Energy Consumption** 

Water Consumption

Waste Generation

Examines how a company manages its employees, suppliers, customers and community

SOCIAL

Do we (our suppliers) protect workers /

**Gender Diversity** 

Age-Based Diversity

Employment

Development and Training

Occupational Health & Safety

Do we run our business effectively?

#### GOVERNANCE

Deals with how a company is governed

**Board Composition** 

Management Diversity

**Ethical Behaviour** 

Certifications

Alignment with Frameworks

Assurance

# Anchored by all stakeholders

1	Investors	Companies with strong ESG approach outperformed weak ESG companies by up to 5%.	<ul> <li>Up to 5% out-performance by top 20% on material sustainability issues over bottom 20% over a 20 year period.</li> </ul>
2	Regulators	Regulation on ESG topics is tightening and no. of disclosures are increasing.	<ul> <li>Over 2,300 climate-related laws and policies are already in place globally.</li> <li>UK, EU, and US regulators each have disclosure rules.</li> </ul>
3	Customers	Customers are favouring companies with a good ESG story.	<ul> <li>Consumers would refuse to purchase a product if company supported an issue contrary to their beliefs.</li> </ul>
4	Employees	Good ESG helps win the competition for talent.	<ul> <li>16% higher productivity for employees working at progressive ESG-thinking companies, with measurable impact on shareholder value.</li> </ul>
5	Partners/ Suppliers	Businesses are requiring ESG adherence from vendors.	<ul> <li>Setting emissions standards for supply chain helped capture savings for group of major companies.</li> </ul>

Source: Marsh

# Market is crowded with several players and frameworks with different methodologies in each space



All of these organizations have different methodologies for the rating process

# **Thinking from COP28**



## **COP28 Key Takeaways**

#### Paris COP 21 (1.5 Degree Goal)

#### **Climate Finance**

 US\$ 30 Bn fund for global climate solutions that aims to attract US\$ 250 Bn of investment by the end of the decade.

#### Loss and Damage Fund

- Countries have agreed to set up a loss and damage fund to compensate developing countries that suffer "loss and damage" from climate-driven storms, floods, droughts and wildfires.
- Pledges of US\$ 700 Mn in funding to help lower-income countries cope with the loss and damage caused by climate change.

#### **Renewable Energy**

 118 countries have agreed targets to triple renewable power generation capacity to 11,000 GW, and double energy efficiency this decade.

#### **Global Stocktake**

 At COP28, national governments and others will conclude the first "Global Stocktake", assessing the results of their collective action to curb climate change.

# The Role of Finance

CFOs are facing growing pressure from regulatory bodies, investors, analysts, and other stakeholders to own the non-financial disclosures in company fillings

### Questions CFOs get asked during Earnings Calls

- How sustainability regulations impact the company?
- How are ESG benefits calculated and measured?
- Is production expected to reduce in order to meet sustainability goals?
- How are sustainability investments to reduce carbon emissions evaluated?
- How much do ESG implications impact decision making on your greenfield / M&A investments?
- Have you had any issues accessing capital for capex projects?
- What impact do sustainability investments have on margins?
- What is the cost of a carbon neutral strategy?



Task Force on Climate Related Financial Disclosures (TCFD/IFRS S2)

# **TCFD Disclosures / IFRS S2**



#### **TCFD** recommended disclosures

- a. Board's oversight of climate-related risks and opportunities.
- b. Management's role in assessing and managing climate-related risks and opportunities.
- a. Climate-related risks & opportunities identified over the short, medium and long term.
- b. Impact of climate related risks & opportunities on the business, strategy and financial planning.
- c. Resilience of the strategy, taking into consideration different climate-related scenarios.
- a. Processes for identifying and assessing climate-related risks.
- b. Processes for managing climate-related risks.
- c. How processes for identifying, assessing, and managing climate-related risks are integrated into the organisations overall risk management.
- a. Metrics used to assess climate-related risks & opportunities aligned with strategy and risk.
- b. Disclose Scope 1, 2, and if appropriate Scope 3 GHG metrics and the related risks.
- c. Targets used to manage climate related risks and opportunities and performance against targets.

## **TCFD** disclosures' quality recommendations

How can organizations improve the quality of its TCFD disclosures beyond compliance?

	Year 1	Year 2	Year 3
Governance	<ul> <li>Clearer management roles &amp; responsibilities in identifying and reporting climate-related risks and opportunities.</li> </ul>	<ul> <li>Explore ESG KPIs being linked to Management remuneration</li> </ul>	<ul> <li>Monitor and report Management performance against KPIs that are linked to remuneration</li> </ul>
Strategy	<ul> <li>Disclose the range of financial impact from material risks for select value chains and articulate the strategy response</li> <li>Announce long-term plan, such as Net zero target</li> </ul>	<ul> <li>Provide more details e.g., key milestones and levers to be used for climate adaptation and decarbonization (net zero).</li> <li>Provide more details on climate adaptation strategy, incl. business continuity plans.</li> </ul>	<ul> <li>Perform full financial modelling to assess the impact of all risks on financial statement line items</li> <li>Discuss the resilience of strategies under different climate scenarios</li> </ul>
	<b>Basolino</b> recommondation	Higher quality	Highost quality

#### Baseline recommendation



A simple way to improve the quality and alignment with TCFD

Higher quality



Intermediary steps towards top quality disclosures, increasing investor confidence





Disclosure quality adopted by sustainability leaders

#### **TCFD** disclosures' quality recommendations

How can organizations improve the quality of its TCFD disclosures beyond compliance?

	(Year 1)	(Year 2)	(Year 3)
Risk Management	Disclose plan to integrate climate risks and controls into IRAF framework and quarterly assessment process	<ul> <li>Perform a residual risk analysis</li> <li>Introduce climate risk management toolkit at the business level for key business process e.g., asset acquisition due diligence</li> </ul>	<ul> <li>Review risks within wider risk management framework</li> <li>Perform risk materiality assessment to refresh risk register</li> </ul>
Metrics	<ul> <li>Key metrics would include Scopes 1, 2 and 3 GHG footprint and targets aligned with SBTi commitment</li> </ul>	<ul> <li>Evaluating and incorporating new relevant metrics and targets for both transitional and physical risk</li> </ul>	Continued reporting of performance against all metrics that have been laid out in previous years for monitoring risks, both Physical and Transitional
	Baseline recommendation	Higher quality	Highest quality
	A simple way to improve the quality and alignment with TCFD	Intermediary steps towards top quality disclosures, increasing investor confidence	Disclosure quality adopted by sustainability leaders



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## Carbon Accounting & Management (Scope 1, 2 and 3)



## 3 Physical Risk Modelling

# **TCFD Disclosures**

#### Physical and transition risks

Environmental or climate risks for businesses are ultimately the change in revenues, costs and risks resulting from adverse environmental events or climate change. **Climate risk is divided into two categories:** 

TRANSITION



#### PHYSICAL

# Physical risks resulting from climate change have various socio-economic impacts on facilities, assets and value chains



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## Inherent Physical Risks: Breakdown by Hazards (Dummy Data)

Modelled Annual Average Loss (MAAL) by Physical Hazard

2020 - 2029 3% 2% 43% 5% 8%





Fluvial Flooding

#### Impact of physical risks through the decades

		Low (<\$5mn)	Medium (\$5mn - \$10mn)	High (>\$10mn)
Time Horizon	Total US\$m	# of assets	# of assets	# of assets
2020s	90	40	10	-
2030s	120	38	4	8
2040s	200	35	5	10

# Inherent physical risks: breakdown by country and BU (Dummy data)





Source: WBCSD-TCFD-Food-Agriculture-and-Forest-Products¬-Preparer-Fourm-report.pdf





## Transition Risk Modelling

# Policy risk exposure due to carbon pricing (Transition Risk Modelling)

#### Modelling company's exposure to carbon pricing in different jurisdictions and scenarios

Using **modelled carbon pricing** provided by the Network for Greening the Financial System (NGFS), we can estimate the impact in all jurisdictions relevant to companies. Those **not listed below** do not have specific projected prices and as such will use a World average:

Current Policies >3°C Scenario (US\$ per tCO2e)		Net Zero 2050 1.5°C Scenario (US\$ per tCO2e)				
Time Horizon	2025	2030	2050	2025	2030	2050
Argentina	3	3	5	133	191	598
Canada	5	5	6	143	196	726
Congo	3	3	4	115	161	570
Estonia	6	5	6	145	204	837
Germany	6	5	6	145	204	837
Latvia	6	5	6	145	204	837
Lithuania	6	5	6	145	204	837
Malaysia	2	2	3	127	176	570
Nigeria	3	3	4	115	161	570
Qatar	0	0	2	139	191	570
NZ, Australia	15	14	12	120	153	721
Republic of India	0	1	2	95	128	458
Russian Federation	1	0	3	118	157	536
Senegal	3	3	4	115	161	570
Ukraine	1	0	3	133	184	614
World	5	5	6	135	176	524





## Internal Carbon Pricing

## Internal carbon pricing mechanisms

Mechanisms	Objectives	Characteristics	Price range in 2020
Shadow Price	<ul> <li>Prepare for future regulations and prioritise low-carbon investments</li> </ul>	<ul> <li>Sets a hypothetical carbon cost to each ton of emissions</li> <li>Identifies climate risks and opportunities</li> <li>Most common form of internal carbon pricing – 5 in 10 companies disclosed the use of a shadow price in 2020 (CDP)</li> </ul>	Median : USD 28 Maximum: USD 459
Implicit Price	<ul> <li>Justifies capital investments to achieve climate/energy targets</li> </ul>	<ul> <li>This value can be used to guide future investment decisions</li> <li>Prices can be estimated based on carbon offsets required to reduce their emissions in line with their targets</li> </ul>	Median : USD 27 Maximum: USD 918
Internal fee	<ul> <li>Dedicated revenue or investment stream to fund company's emissions reduction efforts</li> </ul>	<ul> <li>Fee applied to existing emissions across different internal departments</li> <li>Internal trading (similar to ETS) may be implemented cross-departments</li> <li>Advanced level – complex and costly to implement</li> </ul>	Median : USD 18 Maximum: USD 532

Source: CDP, EY Analysis



Decarbonization strategies to meet our Net-zero targets

#### I. Minimize emissions in own operations (scopes 1 & 2) and supply chains (scope 3)





ESG Due Diligence on Greenfield Projects / M&A

## ESG Due Diligence Checklist (like M&A)

GEOGRAPHIC INFO						
Provide location details of project:						
Latitude (in decimal degrees)						
Longitude (in decimal degrees)						
or Google map location link						

GO / NO-GO CHECKLIST			
If answer is "Y" for any of the following, the project cannot go ahead in its current form:			
Is there any part of the proposed investment site within 1km of a protected area? N			
In the proposed investment site, has there been any history of forced eviction in the past 10 years? N			
In the proposed investment site, has there been any history of land grabbing in the past 10 years?	Ν	"Land grabbing"	

OTHER QUESTIONS				
Please provide answers to the queries below:				
Are the assets to be developed/acquired under this proposal: a Plantation, Concession or Farm?	Ν			
List approvals/ assessments required for the above				
Are the assets to be developed/acquired under this proposal: a Processing Facility?	Y			
List approvals/ assessments required for the above	CIRC & ESIA			
Will you source from smallholder farmers?	Y			
Will you pursue any sustainability certifications (e.g. BCI, SRP, Organic, FairTrade)?	Ν			
If Y for above, list certifications and estimate % of certified volumes for project lifecycle (years 1-10)				
- [Cert 1]	0.0%			
- [Cert 2]				

If Y, check with ESG if **FPIC, PCF DD, ESIA** and **ESMP** are required\*

If Y, check with MATS if ESIA and ESMP are required\*



8 Sustainable Finance and Impact Investments

# 'Sustainable finance' generally refers to the process of taking due account of environmental, social and governance (ESG) considerations when making investment decisions, leading to increased investment in long term and sustainable activities.

#### For all sustainability-linked financing products, 5 core components need to be implemented

KPI Selection	<ul> <li>KPIs to be meaningful, relevant and core to your company</li> <li>KPIs to be measurable, verifiable and comparable</li> </ul>
Calibration of the sustainable performance targets ('SPT')	<ul> <li>Targets to be ambitious and represent a material improvement</li> <li>Targets to be based on internal and/or external benchmarks</li> <li>Depending on the products, targets may be annual (SLL) or one-offs with one observation date (SLB) Targets to be adapted to the maturity of the financing and the financial mechanism selected</li> </ul>
Financial Characteristics	<ul> <li>The comer stone of sustainability-linked financing is that the financial or structural characteristics of the financing vary depending on whether the selected KPI(s) reach (or not) the predefined SPT(s)</li> <li>The margin or coupon adjustment/premium payment must be determined pre-insurance and incorporated in the legal documentation</li> <li>The variation should be commensurate and meaningful</li> </ul>
Reporting	<ul> <li>The issuer must <b>report annually</b> on the level of performances on the selected KPI(s)</li> <li>This frequency can fit with the production of the annual sustainability report or be a standalone report</li> </ul>
Review	• The annual report and performance at the observation date (if relevant) to be reviewed by a qualified external party



## 9 IFRS Compliance

## Potential Key Climate-Related Accounting Implications

А	ssets	Liabilities	Disclosures
Impairment	Expected Credit Losses	Impairment	Judgement and Assumptions
<ul> <li>Impairment indicators</li> <li>Assumptions used in cash flow model</li> <li>Fair value measurement</li> </ul>	<ul> <li>Segmentation based on climate risk profile</li> <li>Changes in probability of default or risk rating of borrowers which may result in moving loans between</li> </ul>	<ul> <li>Consider constructive and legal obligations</li> <li>Restructuring provisions</li> <li>Environmental and decommissioning obligations</li> </ul>	<ul> <li>Critical accounting estimates, assumptions and judgements</li> <li>Going concern assumptions</li> </ul>
Inventories	stages <ul> <li>Value of collateral</li> </ul>	<ul><li>Onerous contract</li><li>Contingent liabilities</li></ul>	Financial Risk Management
<ul> <li>Inventory obsolescence</li> <li>Net realizable value of inventories</li> </ul>	ESG Products		<ul> <li>Credit risk including concentration of risk for e.g., by industry/geography</li> </ul>
Deferred Tax Assets (DTA)	<ul><li>Sustainability-linked loans</li><li>For lenders: Solely Payment of</li></ul>		<ul> <li>Market risk such as price risk on portiolio impacted by climate risk</li> </ul>
Impact on future taxable profit and recognition of DTA	<ul> <li>Principal and Interest (SPPI) test</li> <li>For borrowers Consideration of embedded derivative consideration</li> </ul>		<ul><li>Liquidity risk</li><li>Impact on loan covenants</li></ul>
Fixed and Intangible Assets	Carbon credits		

- Estimate of residual value and useful lives
- Research and development

#### **Insurance Contracts**



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## ESG Reporting (15 Material Areas and 27 KPIs)

# **ESG Reporting Frameworks**



# **Opportunity for CFOs**



#### Controller

- Understand ESG reporting impact on the company
- Align disclosures with relevant frameworks (TCFD, SGX)
- Risk modelling
- ESG DD



#### **Performance Officer**

• Help build clear **transition plans** (incl. CAPEX and OPEX plans) to support the firm's position in sustainability

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#### **Co-Strategist**

- Set ambitious targets (mid- and long term) in line with science and global imperatives (i.e. half by 2030 and net zero by 2050)
- Leverage internal carbon price as a tool and be ready to disclose



#### Value Manager

- Consider the opportunity of **sustainable financing** to support the transition plans / progress towards targets
- Impact Investing
- Investor Relationships, Reputation, Company Valuation

# Finance Function

Leading Edge

### To summarise .....14 Key Steps for becoming Sustainability-

driven CFOs (Olam Agri No.1 in the Oxfam Agri-business Scorecard 2021, 2022)

1	Carbon Measurement	Terrascope Sustainanalytics	8	Financing	Sustainability KPIs linked
2	GHG Reduction Commitment	SBTi	9	ICP	Shadow Price / Fee / Imputed cost
3	Volume Growth	Strategic Plan	10	TCFD Disclosures	4 Pillars / 11 KPIs
4	Emission Reduction Target	Post Volume Growth SBTi Targets	11	Physical Risk Modelling	Climanomics
5	Decarbonization Plan	Afforestation, Deforestation Carbon Offsets Carbon Trading	12	Transition Risk Modelling	Aligned to 1.5 °C / 2 °C goal
6	Capex / Opex	M&A	13	Impairment / ECL / DT / FV	IFRS Compliance
7	Due Diligence	ESG	14	ESG / Sustainability Reporting	Part of Annual Report