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# TCFD

TASK FORCE ON  
CLIMATE-RELATED  
FINANCIAL  
DISCLOSURES

REPORT 2022

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## List of Acronyms

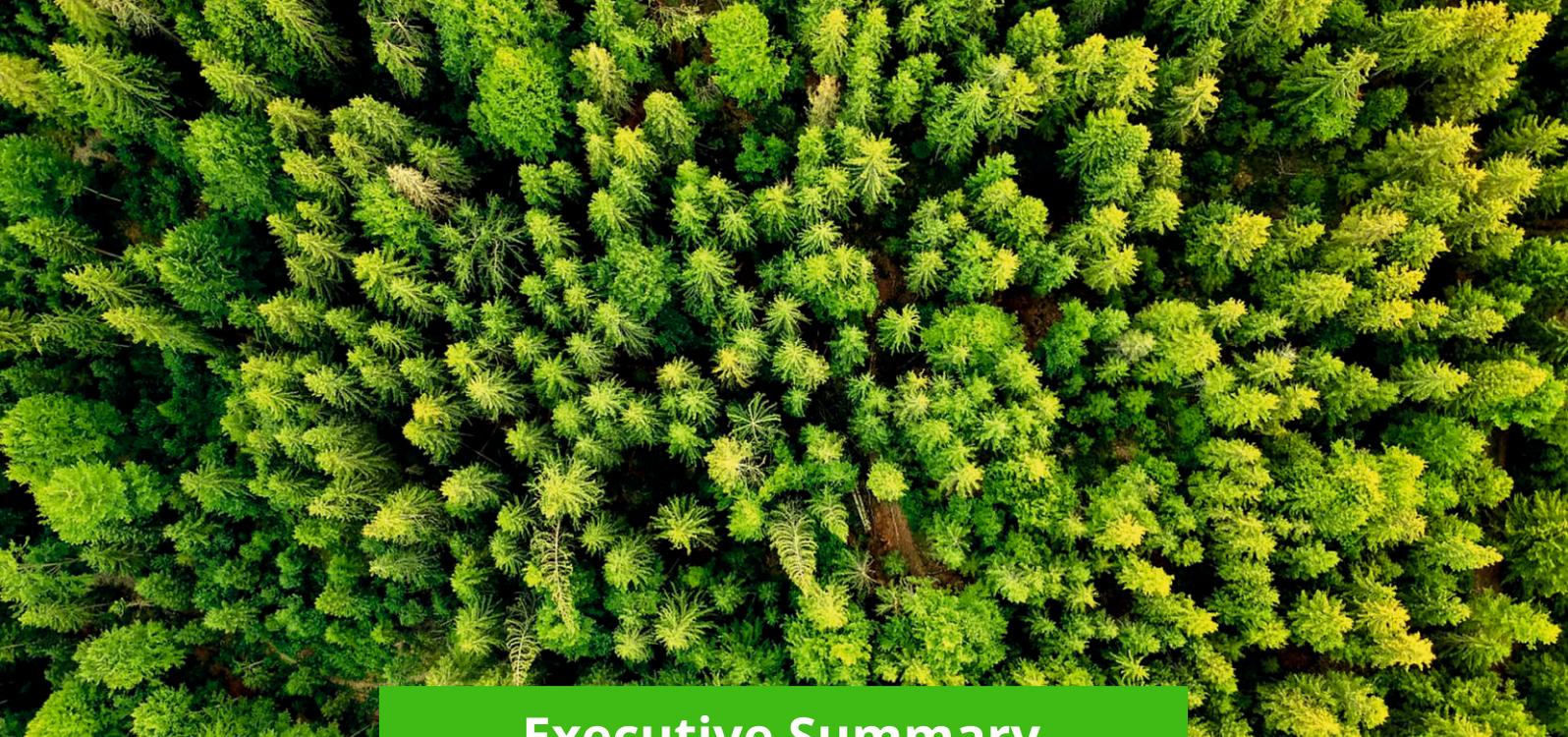
Acronym	Terminology
APS	Announced Pledges Scenario
BAU	Business-As-Usual
CCKP	Climate Change Knowledge Portal
GFDRR	Global Facility for Disaster Reduction and Recovery
IEA	International Energy Agency
SDS	Sustainable Development Scenario
TCFD	Task Force on Climate-Related Financial Disclosure
UNISDR	United Nations International Strategy for Disaster Reduction
UPL	Formerly known as United Phosphorus Limited
WEO	World Energy Outlook
WRI	World Resources Institute

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## Executive Summary

The Task Force on Climate-Related Financial Disclosures (TCFD) was established in 2015 by the Financial Stability Board (FSB). The TCFD's recommendations are divided into four categories that represent core elements of how businesses operate. They are governance, strategy, risk management, and metrics and targets. These categories are interlinked and designed to work together to make a framework for managing the risks of climate change.

The recent trends of changes in climate patterns are severely affecting food security and the global economy along with other essential aspects across the globe. Being a committed organization, UPL is responsible for strengthening food security in over 130 countries by offering world-class technologies and solutions for sustainable agriculture production. The dynamic natural environment brings both challenges as well as opportunities to the business at UPL. UPL has devised plans to ensure that their operations are resilient to present and future environmental risks. It has always sought for ways to reduce the environmental impact and develop new products that benefits the overall society. UPL is intensively working to improve its energy efficiency, emission reduction, freshwater consumption reduction, and enhance waste management. UPL aims to identify and quantify the present and future risks associated with climate change through its TCFD assessment. UPL identified Sphera Solutions Inc., a Blackstone portfolio company based out of Chicago (the USA) and a leading provider of Environmental, Social and Governance (ESG) performance and risk management software, data and consulting services with a focus on Environment, Health, Safety & Sustainability (EHS&S), Operational Risk Management and Product Stewardship.

This TCFD report demonstrates how UPL identifies climate-related risks and what mitigation strategies have been designed to make the company's business model more resilient to these emerging risks. A total of ten significant climate change risks and opportunities that potentially affect UPL's whole value chain were identified after a thorough discussion with the organization. According to the TCFD recommendations, these risks and opportunities were then divided into the following categories:



## Climate-related risks

### Transition Risks

Legal & Policy  
Technology  
Market  
Reputational

### Physical Risks

Chronic Physical Risk  
Acute Physical Risk

## Climate-related opportunities

### Resource efficiency

### Energy Source

### Product & services

### Markets

### Resilience

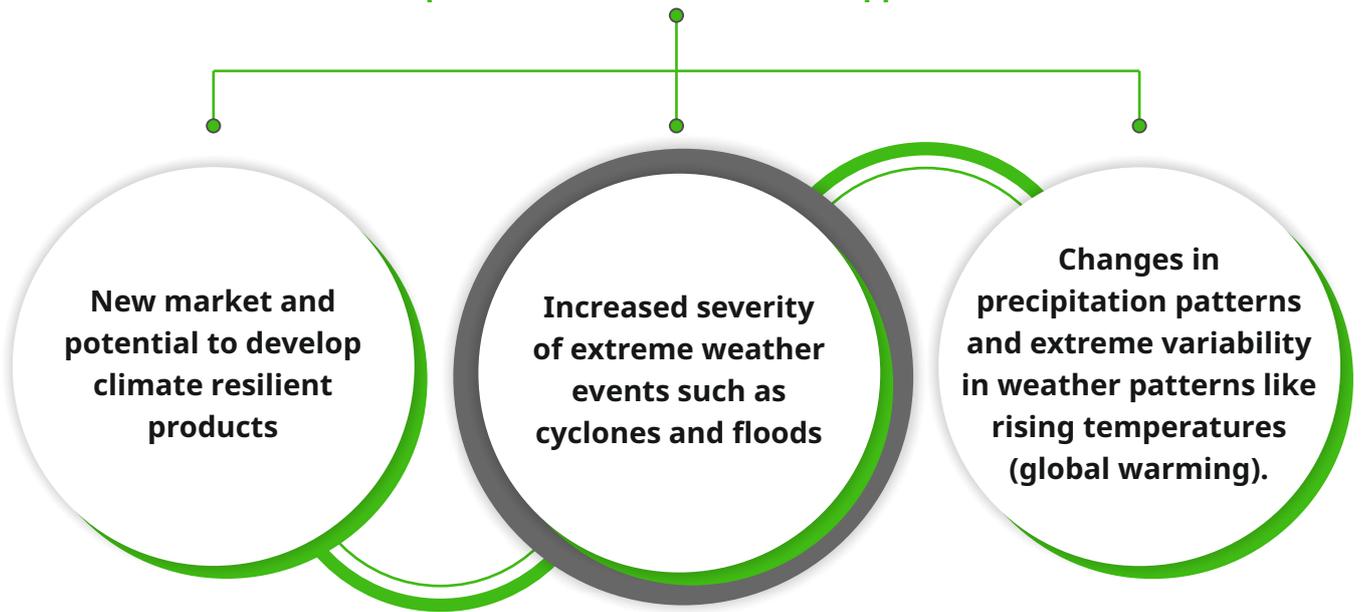
To prioritize the risk and capture the likelihood and severity, a questionnaire was designed based on 5 parameters- Probability of Occurrences, Duration of Event, Area of Influence, Magnitude/scale of Impact, and Preparedness for Mitigation. This questionnaire was then circulated amongst a group of 25 identified senior management personnel from various corporate functions, manufacturing locations across global operations. Responses were collected for each of the five parameters in accordance with the scoring patterns for each of the identified climate change risk.

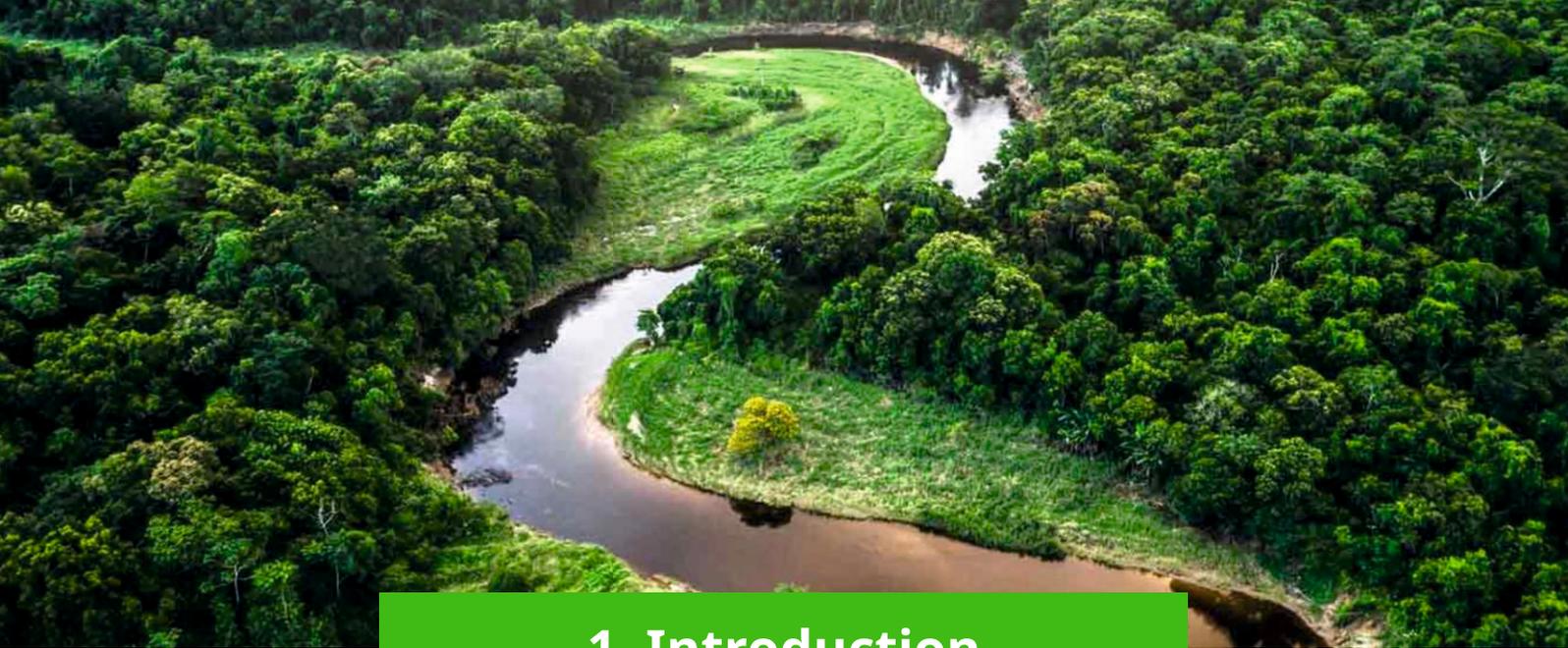
As per the TCFD recommendations, two scenarios were selected to analyze the chronic physical risks that correspond to global average temperature increase of approximately 1.5°C (aggressive mitigation) and 4°C (business-as-usual/No climate action) warming by 2100 relative to pre-industrial levels.

These global average temperatures are obtained from climate model output driven by Representative Concentration Pathways (RCP) 2.6 and RCP 8.5 warming scenarios. Additionally, the World Resources Institute's (WRI) Aqueduct Water Risk Atlas and the India Water Tool were utilized to examine baseline water stress and risks.

For assessing the acute physical risks such as riverine flood, urban flood, coastal flood, earthquake, landslide, Tsunami, Volcano, cyclone extreme heat and wildfire risks, Thinkhazard! tool was used. The tool is supported by the Global Facility for Disaster Reduction and Recovery (GFDRR) which is administered by the World Bank. To evaluate financial implications of climate change risks and opportunities, the approach was aligned with the business risk management framework of company and categorized as high, medium, and low.

**It was observed that the top three risks and associated opportunities critical for UPL are**

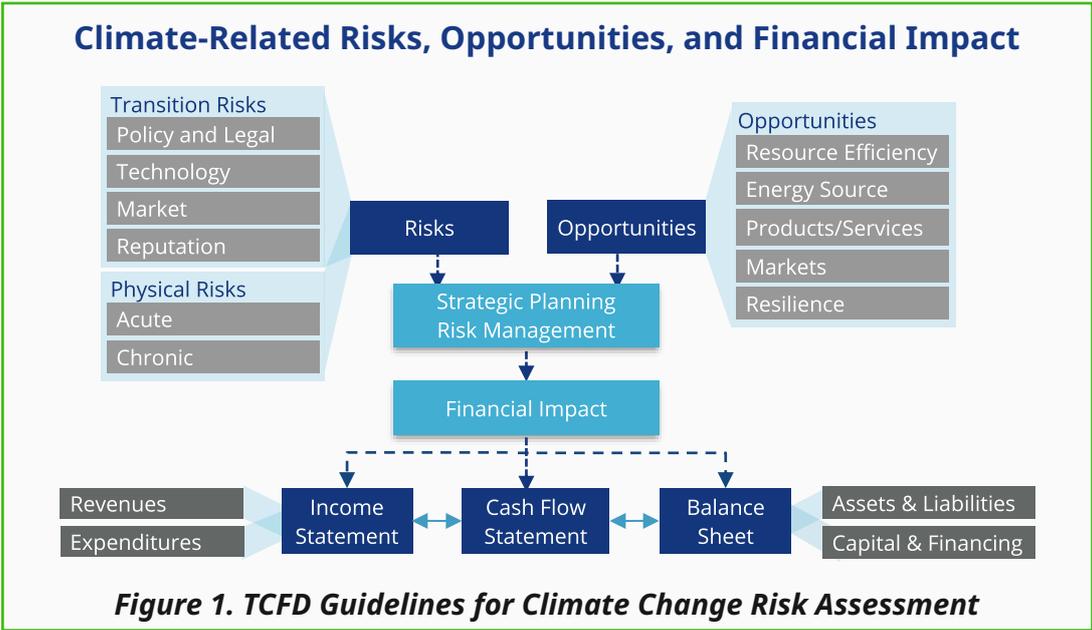




# 1. Introduction

UPL being an Indian multinational agrochemical company is focused on sustainable agriculture products. It is the fifth largest crop protection Company globally by revenue according to IHS Markit. Since its inception in 1969 at Vapi GIDC (Gujarat), UPL has been a critical agrochemical Company in ensuring the global food security through its customer centric solutions and products. UPL operates across 138+ countries as of date and has more than 13000 product registrations. Recent trends in climate change have evidently put pressure on global food supplies and is a matter of concern with respect to food security and global economy. Hence, UPL has decided to assess the climate change related risks and opportunities associated with its business which will help the Company to develop an action plan imbued in business strategy against Climate Change.

The potential risks of climate change for an organization are not only physical, but also transitional. Climate change not only has long-term ramifications for an organization, but it also has significant immediate and short-term consequences. Figure below illustrates climate-related risks, opportunities, and financial impact as per the TCFD recommendation.



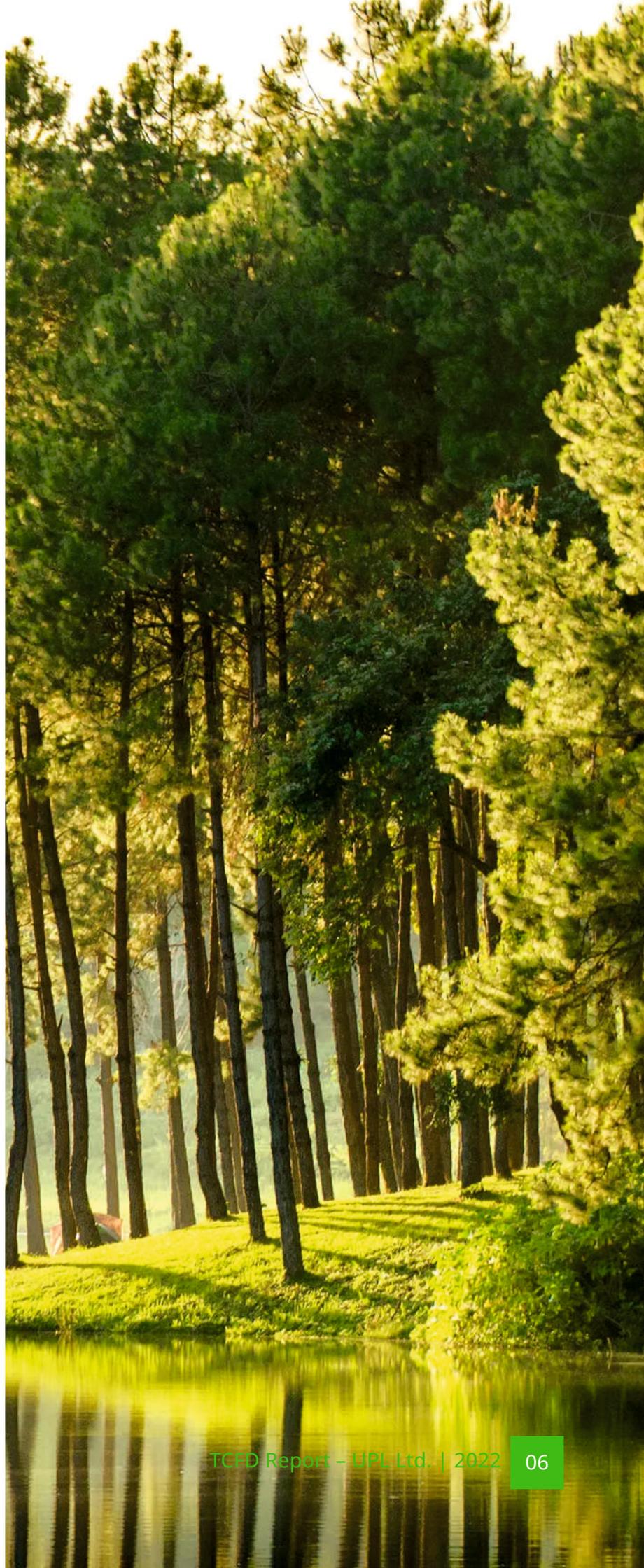
**Figure 1. TCFD Guidelines for Climate Change Risk Assessment**

Source: Recommendations of the Task Force on Climate-related Financial Disclosures

To minimize the disastrous effects of climate change within this century, nearly 200 countries agreed in December 2015 to reduce greenhouse gas emissions and accelerate the transition to a lower-carbon economy. Reducing greenhouse gas emissions necessitates a shift away from fossil fuel energy and related physical assets. This, together with fast decreasing costs and growing deployment of clean and energy-efficient technology, could have major near-term financial repercussions for organizations, including UPL's enterprises. While changes associated with a transition to a lower-carbon economy present significant risk, they also create significant opportunities for organizations focused on climate change mitigation and adaptation solutions<sup>1</sup>.

This TCFD report is structured around four thematic areas that represent its core elements of how organizations operate, they are namely: governance, strategy, risk management, and metrics and targets, allowing investors and others to better understand how reporting companies evaluate climate-related risks and opportunities. The Task Force's disclosure guidelines are based on the qualitative and quantitative aspects of financial data, and it facilitates to achieve its overarching goal of improving climate-related financial disclosure.

<sup>1</sup> Final report, Recommendations of the Task Force on Climate related Financial Disclosures, 2017



## 2. Progress Against Recommended Disclosure

Governance	Strategy	Risk Management	Metrics and Targets
<p><b>Organisation's governance around climate-related risks and opportunities</b> Executive Director who is also one of the promoters of UPL is directly responsible for climate related issues. He interacts regularly on weekly basis with Head and Global Vice President of Environment &amp; Sustainability on matters related to climate change.</p> <p><b>Board's oversight of climate-related risks and opportunities</b> Quarterly review take place on all matters related environment and sustainability and undertake the following activities-</p>	<p><b>Description of the climate-related risks and opportunities the organization has identified over the short, medium, and long term.</b></p> <p>See 4.3 Description of Identified Climate Related Risks</p>	<p><b>Description of the organization's processes for identifying and assessing climate-related risks.</b></p> <p>See Chapter 4.1 Methodology</p>	<p><b>Disclosure on the metrics used by the organization to assess climate related risks and opportunities in line with its strategy and risk management process</b></p> <p>See 6 Metrics and Target</p>
<p>Reviewing and guiding strategy Reviewing and guiding major plans of action Reviewing and guiding risk management policies Reviewing and guiding annual budgets Reviewing and guiding business plans Setting performance objectives Monitoring implementation and performance of objectives Overseeing major capital expenditures, acquisitions, and divestitures Monitoring and overseeing progress against goals and targets for addressing climate-related.</p>	<p><b>Description of the impact of climate related risks and opportunities on the organization's businesses, strategy, and financial planning</b></p> <p>See 4.3 Description of Identified Climate Related Risks</p>	<p><b>Description of the organization's process for managing climate-related risks.</b></p> <p>3.1 See Chapter Risk Management Policies and Framework</p>	<p><b>Disclosure of Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks</b></p> <p>See Table 10: Targets against KPI</p>
<p><b>Management's role in assessing and managing risks and opportunities.</b></p> <p>The company monitors its management's effort to reducing its environmental impact on a regular basis, and each department has environmental KPIs tied to its annual success. This creates a competitive culture across the organisation, with each department actively working to decrease their environmental footprint, thereby reducing UPL's overall footprint</p>	<p><b>Description of the resilience of the organization's strategy, taking into consideration different climate related scenarios including 2 degree or lower scenario</b></p> <p>5 See Chapter Scenario Analysis</p>	<p><b>Description of how processes for identifying, assessing, and managing climate-related risks are integrated into the organization's overall risk management.</b></p> <p>3.1 See Chapter Risk Management Policies and Framework</p>	<p><b>Describe the targets used by the organization to manage climate-related risks and opportunities and performance against targets</b></p> <p>See Table 10: Targets against KPI</p>



### 3. Governance

UPL's corporate governance philosophy reflects its value system encompassing its legacy, culture, vision, mission, policies and relationships with all its stakeholders. UPL is committed to doing things the right way which means taking business decisions which are ethical and in compliance with applicable legislations. The Company is focused on enhancement of long-term value creation for all stakeholders without compromising on integrity, societal benefits, environment, and regulatory compliances. The global corporate governance framework is guided by its core values viz:



In accordance with the Regulations Governing the Internal Organization, the Board of Directors offer strategic guidance on all sustainability problems, including climate-related challenges, and exercises supervision over the Group Leadership Team. The Board of Directors, in particular, determines the Company's sustainability strategic priorities and policies; evaluates the efficacy and implementation of sustainability-related internal policies; and advises the Group Leadership Team on measures proposed.

One of the board members who has substantial experience in the domain of sustainability and agriculture, directs related company's activities. Agriculture and food production are two of his specializations, on which he advises the Board of Directors.

The Board of Directors meets regularly to discuss emerging ESG risk, especially those relating to climate change. The Group Leadership Team is overseen by the Board of Directors, which offers strategic guidance on these issues. The board of directors analyses the company's sustainability strategy and initiatives, particularly those are related to climate change, at least once a year.

The Sustainability function is led by the Global Head of Environment & Sustainability. Sustainability

initiatives, performance management, and policy interactions – including those connected to climate change – are all coordinated and channeled through this department. It evaluates and tracks the company's progress on climate change and the broader sustainability goal. The Global Head of Environment & Sustainability apprises the Group Leadership Team and the Board of Directors on the company's sustainability obligations on a regular basis and advises them on appropriate actions.

The leadership team as depicted below oversees business sustainability standards, strategy, objectives, and collaborations, particularly those involving climate change. It assesses and advises on the effectiveness of internal policy implementation. Each member of the Group Leadership Team oversees ensuring that sustainability culture is embedded in their respective areas of responsibility.

UPL's value generation strategy is based on a strong corporate governance structure. A comprehensive approach is followed to address all pillars of sustainability - economy, society, and environment – while retaining integrity, transparency, and responsibility. To detect and mitigate climate-related risks and opportunities, the Company has a strong governance system in place. Below are the details of company's governance structure:

<b>Audit Committee</b>	Chairperson, Non-Executive - Independent Director	Member, Non-Executive-Independent Director	Member, Non-Executive-Independent Director		
<b>Sustainability Committee</b>	Chairperson, Non-Executive - Independent Director	Member, Non-Executive-Independent Director	Member, Non-Executive - Non-Independent Director	Member, Global Head – Environment & Sustainability	
<b>Risk Management Committee</b>	Chairperson, Executive Director	Member, Executive Director	Member, Non-Executive - Independent Director	Member, Global Chief Financial Officer	Member, Global Head - Supply Chain
<b>Stakeholder Relationship &amp; CSR</b>	Chairperson, Non-Executive - Independent Director	Member, Non-Executive - Non-Independent Director	Member, Executive Director		
<b>Finance and Operations Committee</b>	Chairperson, Executive Director	Member, Executive Director	Member, Non-Executive - Non-Independent Director		

**1. The Corporate Sustainability Team** is responsible for the overall sustainability strategy at UPL. The team collaborates with internal and external stakeholders of the Company and incorporates various actions supporting ESG goals and targets. The team is also responsible for all the ESG data and disclosures.

**2. The Corporate Environment Team** oversees ensuring environmental compliance at the operational level, as well as monitoring and evaluating the performance of the EMS system.

**3. Green Cell (Technology Team):** The Green Cell oversees technical issues related to environment at manufacturing locations in India. This cell is also in charge of implementing industry best practices at manufacturing units through technological interventions and adoptions. that remediation actions follow worldwide best practices.

The Company examines its management's effort to reduce its environmental impact on a regular basis, and each department has environmental KPIs tied to its annual success. This creates a competitive and healthy competition across the Company, with each department actively working to decrease their environmental footprint, thereby reducing UPL's overall footprint.

**Table 1: Responsibilities of Committees**

Committee	Function
<b>Sustainability Committee</b>	<ol style="list-style-type: none"> <li>1. Review and recommend changes as appropriate to the Company's Sustainability &amp; Climate Strategy and Policy, to ensure the Company's standards of business behaviour are up to date and reflect the global best practices in this area.</li> <li>2. Assess the Company's performance in implementing sustainability strategy and policy, by receiving and considering updates from the Company's businesses, and internal and external experts.</li> <li>3. Review reports and give advice on measures which ensure the long-term sustainability of the Company in its economic, social and environmental dimension.</li> <li>4. Monitor the Company's performance against selected external sustainability indexes.</li> <li>5. Oversee the Company's response to climate change and related reporting. Provide strategic guidance on climate-related matters including monitoring of climate-related metrics and targets.</li> <li>6. Review fatal or serious accidents, dangerous occurrences, any material, effluent or pollution problems.</li> <li>7. Review and reassess the adequacy of Charter on annual basis and recommend any proposed changes for approval of the Board.</li> <li>8. Evaluate its performance annually.</li> <li>9. Delegate any of the terms mentioned hereinabove to any officer/employee of the Company or to any other person.</li> <li>10. Perform such other activities as may be required under the relevant provisions of the Companies Act, 2013, the Rules made there under, Securities and Exchange Board of India (Listing Obligations and Disclosure Requirements) Regulations, 2015.</li> </ol>

Committee	Function
<p style="text-align: center;"><b>Stakeholders Relationship Committee</b></p>	<ol style="list-style-type: none"> <li>1. This committee is responsible for Overseeing and review all matters connected with transfer of Company's securities including those arising from climate-related risks.</li> <li>2. Consider, resolve and monitor redressal of investors'/shareholders'/security holders 'grievances related to transfer of securities, non-receipt of annual reports, non-receipt of declared dividend, issue/new duplicate certificates, general meetings and so on.</li> <li>3. Reviewing measures taken for effective exercise of voting rights by shareholders including the topics related to sustainability.</li> <li>4. Reviewing adherence to and recommending methods to upgrade the service standards adopted in-line with sustainable performance by the Company in respect of various services being rendered by the Registrar &amp; Share Transfer Agents.</li> <li>5. Reviewing various measures and initiatives taken by the Company for reducing the quantum of unclaimed dividends and ensuring timely receipt of dividend warrants/annual reports/statutory notices by the security shareholders of the company.</li> <li>6. Review the engagement with security holders including institutional investors and identify the actionable points for implementation in the area of sustainability.</li> <li>7. Review movement in shareholdings and ownership structure.</li> <li>8. Evaluate its performance annually including sustainability performance.</li> <li>9. Review and reassess the adequacy of Charter on annual basis and recommend any proposed changes for approval of the Board.</li> <li>10. Delegate any of the terms mentioned hereinabove to any officer / employee of the Company or to any other person.</li> <li>11. Perform such other functions as may be required under the relevant provisions of the Companies Act, 2013, the Rules made there under, the Securities and Exchange Board of India (Listing Obligations and Disclosure Requirements) Regulations, 2015 and various circulars issued by the regulatory authorities thereof, as amended from time to time and discharge such other functions as may be specifically delegated to the Committee by the Board from time to time. This also includes the recent BRSR mandate by the Securities and Exchange Board of India.</li> </ol>

Committee	Function
<b>CSR Committee</b>	<ol style="list-style-type: none"> <li>1. Formulate and recommend to the Board, a Corporate Social Responsibility (CSR) Policy indicating the activities to be undertaken by the Company as specified in schedule VII of the Companies Act, 2013.</li> <li>2. Recommend the amount of expenditure to be incurred on the CSR activities.</li> <li>3. Approve Corporate Sustainability Reports and oversee the implementation of sustainability activities.</li> <li>4. To review and recommend the Corporate Social Responsibility Report (CSR Report) and the Business Responsibility Reports (BRSR) to the Board for its approval.</li> <li>5. Monitor Corporate Social Responsibility Policy of the Company from time to time.</li> <li>6. Monitor the CSR activities undertaken by the Company.</li> <li>7. Evaluate its performance annually.</li> <li>8. Review and reassess the adequacy of Charter on annual basis and recommend any proposed changes for approval of the Board.</li> <li>9. Delegate any of the terms mentioned hereinabove to any officer / employee of the Company or to any other person.</li> <li>10. Perform such other functions as may be required under the relevant provisions of the Companies Act, 2013, the Rules made there under, the Securities and Exchange Board of India (Listing Obligations and Disclosure Requirements) Regulations, 2015 and various circulars issued by the regulatory authorities thereof, as amended from time to time and discharge such other functions as may be specifically delegated to the Committee by the Board from time to time.</li> </ol>



Committee	Function
<p style="text-align: center;"><b>Risk Management Committee</b></p>	<ol style="list-style-type: none"> <li>1. To formulate a detailed risk management policy which includes:               <ol style="list-style-type: none"> <li>a) A framework for identification of internal and external risks specifically faced by the listed entity including financial, operational, sectoral, sustainability (particularly ESG related risks), information, cyber security, data security risks or any other risk as may be determined by the Committee. This also covers the climate-related risks management.</li> <li>b) Measures for risk mitigation including systems and processes for internal control of identified risks.</li> <li>c) Business continuity plan.</li> </ol> </li> <li>2. To ensure that appropriate methodology, processes and systems are in place to monitor and evaluate risks associated with the business of the Company.</li> <li>3. To monitor and oversee implementation of the risk management policy, including evaluating the adequacy of risk management systems.</li> <li>4. To periodically review the risk management policy, at least once in two years, including by considering the changing industry dynamics and evolving complexity.</li> <li>5. To keep the board of directors informed about the nature and content of its discussions, recommendations and actions to be taken.</li> <li>6. Review of the appointment, removal and terms of remuneration of the Chief Risk Officer (if any).</li> <li>7. Evaluate its performance annually.</li> <li>8. Review and reassess the adequacy of the Risk Management Committee Charter on annual basis and recommend any proposed changes for approval of the Board.</li> <li>9. Delegate any of the terms mentioned hereinabove to relevant officer / employee of the Company.</li> <li>10. Perform such other functions as may be required under the relevant provisions of the Securities and Exchange Board of India (Listing Obligations and Disclosure Requirements) Regulations, 2015 and various circulars issued by the regulatory authorities thereof, as amended from time to time and discharge such other functions as may be specifically delegated to the Committee by the Board from time to time.</li> </ol>
<p style="text-align: center;"><b>Audit Committee</b></p>	<p>Audit Committee: This committee oversees of the Company's financial reporting process and the disclosure of its financial information to ensure that the financial statement is correct, sufficient, and credible. It also Reviews, with the management, the quarterly financial statements before submission to the board for approval in particular the investments made by the Company's unlisted subsidiary along with associated financial impacts due to climate-related risks and opportunities.</p>
<p style="text-align: center;"><b>Finance &amp; Operations Committee</b></p>	<p>The Finance and Operations Committee is a non-statutory committee which has been constituted to delegate certain powers of the Board in the interest of speedy disposal of routine/operational matters and also those related to climate-related transitions and risks management which inter-alia include finance and treasury related matters, property related authorizations, general authority required under various statutes, issuing power of attorney.</p>



## 4. Climate Strategy and Risk Management

### 4.1. Risk Management Policies and Framework

The Company has a Risk Management committee. The Committee is constituted to identify the risks and to review mitigation plan in a proactive manner. It comprises three Directors of which two are Executive Directors. Senior executives from different divisions of the Company regularly provide inputs on potential risks to the Committee to monitor mitigating plans for the identified risks. The Committee contributed particularly with respect to risks arising from regulatory issues, climate change, etc.

Further, UPL's risk management policy addresses the following risks relating to impacts of climate change such as:

- 1) Inherent characteristics of the industry such as indifferent weather, leading to demand fluctuation and industry downturn.
- 2) Risks arising out of non-availability of some key inputs and raw materials, which may affect production plans, risks relating to excessive dependence on one or two geographies which can impact revenues in case of localized downturn.
- 3) Risks relating to failure to introduce innovative products to counter the immunity developed against the Company's products by insects/pests.
- 4) Risks relating to high receivables at certain times of seasons, impacting the working capital negatively.
- 5) Risks relating to inadequate compliance to regulations worldwide and non-compliance arising out of failure to address changes in government policies from time to time, resulting in cancellation of registration of some products.

The TCFD takes the understanding and acceptance of climate-related risks and opportunities beyond the traditional lens of physical impacts arising from severe weather events. The TCFD terminology suggests two broad types of climate-related risks – physical and transition risks. The description of top 3 risk and opportunities out of identified material risks is given below.



## **1. Increased severity of extreme weather events such as cyclones and floods (Acute Physical)**

It refers to those risks that are event-driven, including increased severity of extreme weather events, such as cyclones, hurricanes, droughts or floods. These risks can cause damage to crop from reduced water and increased susceptibility to pests and diseases. Climate change may cause increase in both frequency and intensity of extreme events like drought which can severely affect the utilities (water and electricity) required for production & manufacturing of goods. It can also be the reason for supply chain disruption eventually leading to delay in logistics of raw material; and an increase in the operational cost.

This also paves a way to opportunity based on **resource efficiency**. The opportunities could be the use of UAV for pesticides and other application, weed growth with growers requiring different pest management needs, precision agriculture and Farm Intelligence. Besides, it also gives an opportunity from and services perspective, such as using UPL's post-harvest solutions e.g., Quickphos, Magnaphos for grain storage to avoid impact of climate change on perishable goods.

## **2. Changes in precipitation patterns and extreme variability in weather patterns like rising temperatures (global warming) (Chronic Physical)**

Changes in precipitation can lead to cost of investment in adaptation measures due to drought like conditions leading to crop yield reduction and possible crop failure. It may also be related to long-term shifts in cropping system or management practices due to shift in mean climate conditions. Furthermore, an increase of droughts affecting the customers could lead to a reduction in demand for the products, such as seeds and crop protection products. High temperature at early crop stages could delay sowing, poor growth, reduced tillering, dry weight, exposure to stress at later stages, more

pest infestation, and diseases. One of the potential risks associated with Sea Level Rise is loss of arable land from inundation or potential saltwater intrusion. High temperature and unfavorable working conditions could lead to lower worker productivity; reduced labor availability and effect the farmer's willingness to work. Dynamic Weather can also cause damage, degradation and maintenance implications for your buildings, grounds, plant or machinery; decreased product service life and increased factory's down time and might result in increased cost of R&D for adaptation measures.

However, there are opportunities linked to the risks including increase in sales of products (market opportunity) from prolonged crop diseases leading to additional sales and promotion of innovative UPL products such as UPL Zeba which prevents the leaching of soil (Product and services opportunity).

### 3. New Market and potential to develop climate resilient products (Market)

Climate change may lead to demand of new climate resilient products including low carbon and drought resistant products. (Example: Products with environmental product labelling, products having carbon neutral label, carbon neutral packaging' label) from consumers which results in high R&D investments. This might also cause disruption of sales for existing products.

UPL may also seek an opportunity in this to increase focus on bio-based pesticides & organic fertilizers and develop product for improving soil respiration and soil nutrient management and products for enhancing soil organic carbon and marketing of the existing product.

# ZEBA®

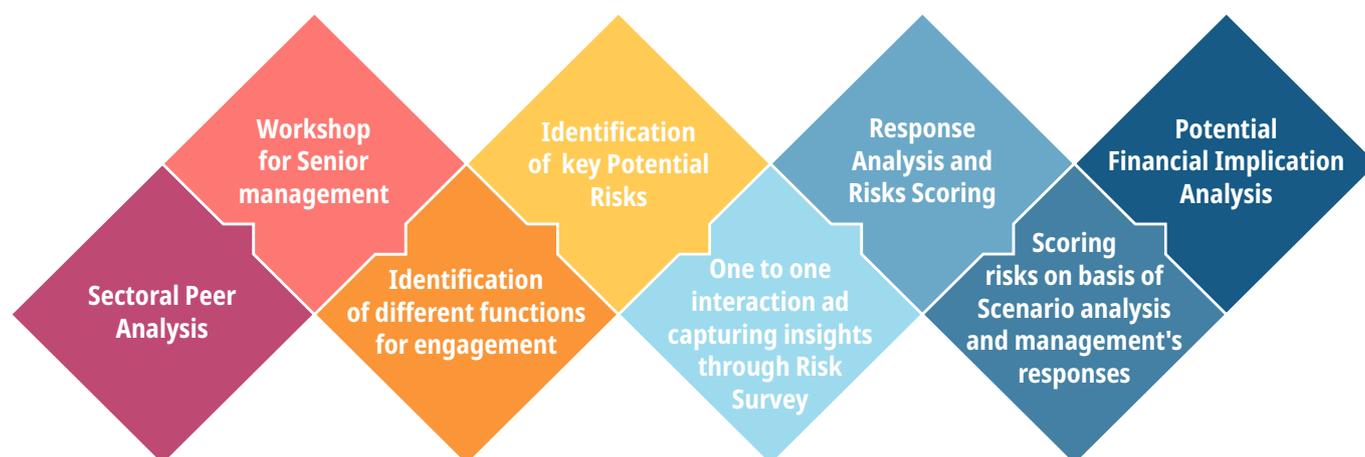
# Customer centric climate resilient product



## 4.2 Methodology

A climate related risk assessment activity was carried out to identify and demonstrate, how UPL deals with climate-related risks and how resilient the Company's business model is towards these emerging risks. Figure 4 represents the flow of methodology used to carry out this assessment.

Climate change is an unforeseen danger and has never-before-seen consequences for business. The list of climate change hazards faced by the business was compiled after extensive research and peer evaluation. A total of 10 climate change hazards that could affect UPL's whole value chain have been identified. An interactive cross-functional workshop was held along with the senior management to understand and prioritize risks. A Questionnaire was developed to score each risk based on likelihood or Probability of occurrence (L), Magnitude/Scale of impact (M), Preparedness for Mitigation (P), Area of Influence (I), Duration of Event (E). The above parameters had a 5-point Likert response with their scoring pattern. Responses were collected from EH&S Department, Risk Management, Corporate Social Responsibility, Human Resources, Logistics, Procurement and Environmental Department. One to one interaction was also conducted to prioritise risks through surveys.



The key questions for identifying, assessing, and prioritising the climate change related risks with senior management were -

- ▶ What are the major short and long-term climate related physical and transition risks likely to affect the company's business, operations, and value creation in the foreseeable future?
- ▶ What is the likelihood and impact of changes in demand for the company's products and services due to climate change, and their implications for its business model?
- ▶ In terms of risks and opportunities, what can be the potential impact of climate change adaptation and mitigation on the company's business model, financial planning, and other decision-making processes?
- ▶ What innovation- and technology-related opportunities have been investigated to reduce GHG emissions or adapt to climate change?



## 5. Scenario Analysis

The TCFD describes scenarios as “hypothetical constructs and not designed to deliver precise outcomes or forecasts”. Scenarios provide a way for organizations to consider how the future might look if certain trends continue and certain conditions are met. Scenario analysis is a tool to enhance critical strategic thinking. In a world of uncertainty, scenarios are intended to explore alternatives that may significantly alter the basis for “business-as-usual” assumptions. The figure below demonstrates the indicative process for applying climate related scenario analysis.

A set of two future scenarios viz the 1.5° C and business as usual (BAU) was developed for each of the identified climate change risks. If only BAU scenario is followed without taking into account the 1.5° C scenario, then risk arises and vice versa. To evaluate the business impacts, mapping the maximum cost heads that are impacted by these risks based on which scenario is considered.

### 5.1. Acute Physical Risks

Think Hazard tool was used to assess acute physical risks. Think Hazard is developed and maintained by the Global Facility for Disaster Reduction and Recovery (GFDRR Labs) and has been adopted into World Bank Operations Portal for core use in project planning. The information about climate indicators are obtained from the Climate portal (CCKP) published by World Bank Group and from additional studies. The susceptibility to climate risks on the basis of frequency and intensity of occurrence the risks namely river, urban and coastal floods, water scarcity, cyclone, extreme heat, earthquake, Tsunami, volcanic eruption and wildfire hazards.

### 5.2. Chronic Risk

Chronic hazards namely mean temperatures, precipitation, and sea level rise. A study was conducted with projections using the CMIP Models. For the physical risk study, two opposing warming scenarios were used, corresponding to world average temperature rises of around 1.5°C by 2100 and 4°C by 2100 relative to pre-industrial levels. These are produced from the output of climate models driven by the Representative Concentration Pathways (RCP) 2.6 and RCP 8.5 warming scenarios. Two-time horizons were selected for the medium future (2030s), and one for the longer period (2050s). To understand the mean temperature, precipitation gap and sea level rise in 2030 between 4 degree and 1.5-degree scenario and similarly for 2050 was analyzed using climate change knowledge portal (CCKP) portal.



## 6. Metrics and Targets

UPL supports and diligently works to achieve the Paris Agreement and its goal of keeping global warming to be below well below 2 degrees. UPL believes that its objectives should convey to its stakeholders that they are dedicated to lowering its environmental effect while also reducing their carbon price exposure. To help guide the implementation, KPIs were identified from risk assessment that are of strategic importance and need utmost focus. Climate related metrics and targets based on the prioritized risks are as follows:

**Table 2: Targets against KPIs**

No.	KPI	2019-20	2020-21	Target 2025	Target 2035
1.	GHG Emissions (Scope 1) (MT of CO <sub>2</sub> eq)	746,438	710,906	25% reduction (Baseline FY20)	37.5% reduction (Baseline FY20)
2.	GHG Emissions (Scope 2) (MT of CO <sub>2</sub> eq)	177,696	226,824	25% reduction (Baseline FY20)	37.5% reduction (Baseline FY20)
3.	GHG Intensity (Kg of CO <sub>2</sub> eq./MT) <sup>2</sup>	1337.46	1137.45	25% reduction (Baseline FY20)	62% physical intensity reduction in scope 1 and 2 emissions (Baseline FY20)

<sup>2</sup> Specific CO<sub>2</sub> footprint currently includes only Scope 1 and Scope 2 emissions; Source: Page 56, Sustainability report 2020-21, UPL Limited



***“Earth provides enough to satisfy every man’s need,  
but not every man’s greed.”***

**- Mahatma Gandhi**



## **UPL Limited**

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