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## **Acronyms**

BRSR	Business Responsibility and Sustainability Reporting
CII	Confederation of Indian Industry
CCAC	CII Climate Action Charter
CESD	CII-ITC Center of Excellence for Sustainable Development
ESG	Environment, Social, and Governance
GHG	Greenhouse Gas
IPCC	Intergovernmental Panel on Climate Change
KPI	Key Performance Indicator
MSME	Micro, Small & Medium Enterprise
NAPCC	National Action Plan on Climate Change
NDC	Nationally Determined Contribution
SDGs	Sustainable Development Goals
SEBI	Securities and Exchange Board of India
TCFD	Task Force on Climate-Related Financial Disclosures
TNSAPCC	Tamil Nadu State Action Plan on Climate Change
UNFCCC	United Nations Framework Convention on Climate Change







### **Executive Summary**

The CII Climate Action Charter (CCAC) aims to promote corporate climate action. Through the Charter, risk can be assessed, and a resilient action plan can be developed aligned with national and international policies to combat climate change.

CCAC's objectives are in line with the Paris Climate Accord's global climate targets, which aim to keep global temperatures below 1.5°C. To help businesses transition to a low-carbon economy, the CCAC is based on four basic principles: reducing Greenhouse Gas (GHG) emissions, transitioning across value chains, building resilience, and mobilizing green finance.



#### Reductions

**GHG Emission** Develop measurable short term (5 years) and long term targets for GHG emission reduction



#### **Building** Resilience

Build resilience for future climate change impacts



Support value chain in climate transition



**Mobilizing Green Finance** 

Accelerate green finance for climate transition

This report offers insights on the pilot project that CESD and the CII Tamil Nadu chapter carried out in collaboration for the two most well-known industrial clusters in the state i.e., Coimbatore and Tirupur. The goal of the study is to understand the existing level of preparedness and awareness among MSMEs located in these clusters as well as their progress towards state-set targets. The pilot project was carried out in three elaborate phases.

- Phase I- Sensitization Session
- Phase II- CII Climate Action Charter Toolkit Introduction and Data Collection
- · Phase III- Data Analysis & Reporting

The following report will provide the reader with an insight into the learnings resulting from the study and the analysis of the data acquired from the two clusters. In addition, a suggestive roadmap and action plan are provided to assist the MSMEs in their transition towards climate-friendly practices. The learning from this pilot project will lay a foundation for the future initiatives of CESD through the CCAC whose goal is to create a network of like-minded businesses and MSMEs to build a robust and supportive value chain that can assist each other in their pursuit of climate action goals and can encourage the sharing of best practices in the relevant sectors that are put in place to address climate risks.1





## Climate Change - According to the UN, climate change refers

- According to the UN, climate change refers to long-term shifts in temperatures and weather patterns. Such shifts can be natural, due to changes in the sun's activity or large volcanic eruptions. But since the 1800s, human activities have been the main driver of climate change, primarily due to the burning of fossil fuels like coal, oil and gas. Burning fossil fuels generates greenhouse gas emissions that act like a blanket wrapped around the Earth, trapping the sun's heat, and raising temperatures. The growing use of energy and expansion of the global economy during the 20th century is often seen as the primary cause of this increasing build-up.

Continued greenhouse gas emissions at or above current rates would cause further warming and induce many changes in the global climate system during the 21st century that would very likely be larger than those observed during the 20th century. The global temperature has already risen 1.1°C above the pre-industrial level, with glaciers melting and the sea level rising. The impacts of climate change also include flooding and drought, displacing millions of people, sinking them into poverty and hunger, denying them access to basic services, such as health and education, expanding inequalities, stifling economic growth, and even causing conflict.

To limit warming to 1.5°C above pre-industrial levels, as set out in the Paris Agreement, global greenhouse gas emissions will need to peak before 2025. Then they must decline by 43 percent by 2030 and to net zero by 2050.<sup>2</sup>

1 in 3
manufacturing jobs
are affected by the
<u>crisis</u>





11% increase in cost due to climate change policies and regulations



Financial Impact of climate risks on indian companies in the next five years is Rs. 7138 billion







EFFECTS OF CLIMATE CHANGE	1.5° C	2° C	2°C IMPACTS
EXTREME HEAT Global population exposed to severe heat at least once every five years	14%	37%	<b>2.6X</b> WORSE
SEA-ICE-FREE ARTIC No of ice-free summers	AT LEAST 1 EVERY 100 YEARS	AT LEAST 1 EVERY <b>10 YEARS</b>	<b>10X</b> Worse
SEA LEVEL RISE Amount of sea level rise by 2100	0.40 meters	0.46 meters	<b>0.06M</b> MORE
SPECIES LOSES VERTEBRATES Vertebrates that lose at least half of their range	4%	8%	<b>2X</b> WORSE
SPECIES LOSES PLANTS Plants that lose at least half of their range	8%	16%	<b>2X</b> WORSE
SPECIES LOSES INSECTS Insects that lose at least half of their range	6%	18%	<b>3X</b> Worse
ECOSYSTEMS  Amount of Earth's land area where ecosystems will shift to a new biome	7%	13%	<b>1.86X</b> WORSE
PERMAFROST  Amount of artic permafrost that will thraw	<b>4.8</b> Million KM <sup>2</sup>	<b>6.6</b> Million KM <sup>2</sup>	<b>38%</b> WORSE
CROP YIELDS  Reduction in maize harvests in tropics	3%	7%	2.3X WORSE
CORAL REEFS Further decline in coral reefs	70% - 90%	99%	<b>Upto 29%</b> WORSE
FISHERIES  Decline in marine fisheries	<b>1.5</b> Million Tonnes	<b>3</b> Million Tonnes	<b>2X</b> WORSE

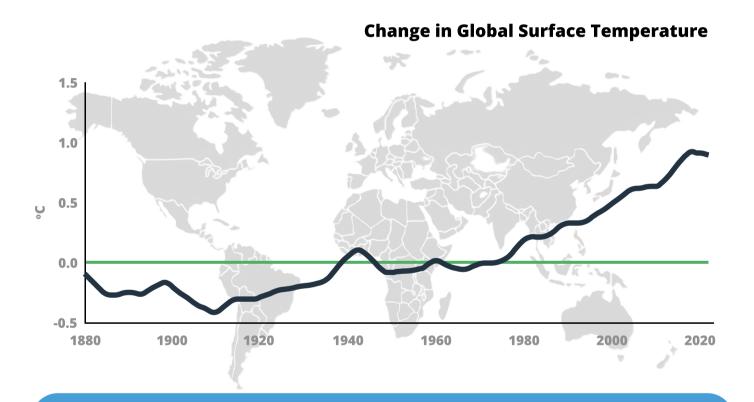








## Countries to become Climate Neutral by 2050



To hold global average temperature increase to well below 2°C above preindustrial level

1.5°C above preindustrial levels







#### INTERNATIONAL CLIMATE GOALS

At COP27 the Sharm el-Sheikh Implementation Plan that was published on 20 November 2022 reaffirmed the commitment to limit global temperature rise to 1.5°C above pre-industrial levels. Although, the Paris Climate Accord aimed to restrict global average temperature rise to well below 2°C and strive for 1.5°C, Intergovernmental Panel on Climate Change (IPCC) in its 2022 report, issues a dire warning on the temperature levels of 1.5°C being attained by 2040 which may be a lot earlier if our day-to-day activities continue in the same manner. Since its inception in the Paris Agreement, Low Carbon solutions are becoming competitive across economic sectors representing 25% of emissions and by 2030 these are anticipated to represent over 70 % of global emissions thus creating more opportunities for early movers.<sup>3</sup>

The global arena identifies small businesses as essential players to aid in the transition towards a low carbon / decarbonized economy, as they are large in number and often form a part of stakeholders of larger firms. When put into practice by many MSMEs, small changes brought about by technological advancements and R&D can have a significant impact. Given this, MSMEs could significantly affect the decarbonization of several sectors. CESD through its various activities aim to create a blueprint for MSMEs to make the best of the opportunities mentioned above all while driving states and MSMEs towards the net zero goal.<sup>4</sup>



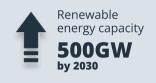






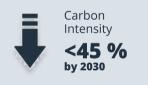


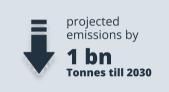
## Climate Goals



To meet

50 %
energy requirement
from renewable sources
by 2030

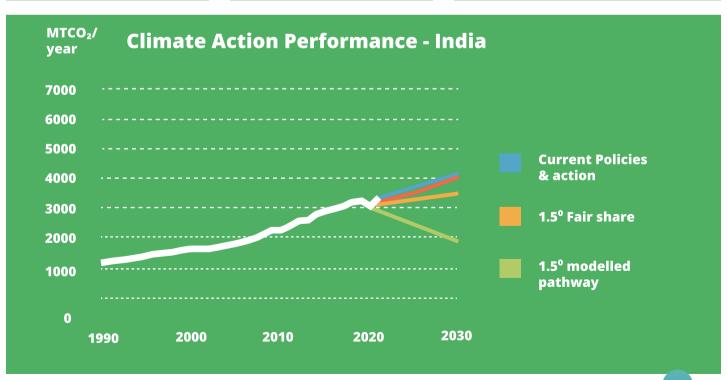








**© 0.25**Tonnes of CO2 per 1000\$ of GDP in 2021





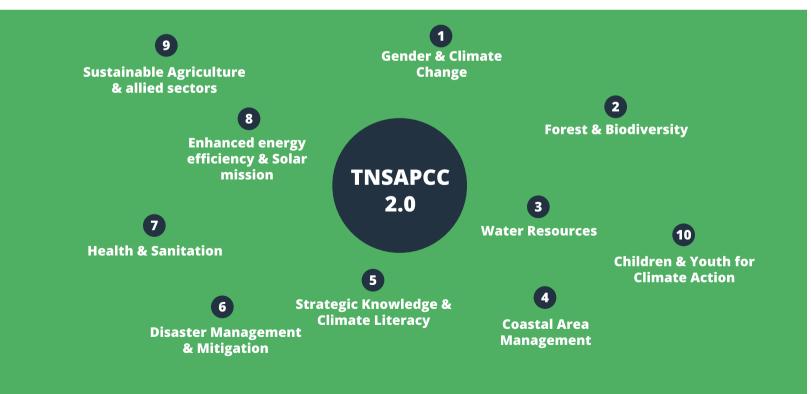


#### **NATIONAL CLIMATE GOALS**

India has set 2070 as the target to achieve its net zero emission goals through its Long-Term Low Emissions Development Strategy (LT-LEDS) which was submitted to the UNFCCC in November 2022, teamed with an additional commitment to reduce the Emissions Intensity of its GDP by 45 percent by 2030. The NAPCC lists eight National Missions that it perceives as pivotal missions that can help the government navigate through the development strategies for its net zero targets and goals.

Tamil Nadu is one of the coastal states with a coastline measuring approximately 1076 km accounting for 13% of the Indian coastline and is on the frontlines of climate change. Year after year is impacted by floods, droughts, and cyclones resulting in an economic loss of approximately 500 million USD per climate disaster, with the impacts ranging from damage to critical infrastructure, reduced agricultural yields, to the loss of several livelihoods. On the local front, the Tamil Nadu state government has drafted its state action plan on climate change known as the TNSAPCC endorsed by several national institutions, under which seven vulnerable sectors have been listed. Districts will be classified into several categories to ensure appropriate formulation and implementation of adaptation options.

Tamil Nadu has become one of the first states to launch its climate change mission to make it a 'climate-smart state'. Launched in December 2022, the TNSAPCC 2.0 is a revised plan, where 13 goals have been proposed with 11 focal areas aiming to achieve national carbon neutrality much ahead of 2070. The goals listed have been revised following a comprehensive study of climate risks and their impacts on the SDGs. The Tamil Nadu government, through this plan has set its sights on a well-rounded solution that not only addresses climate change but can bring about a positive change in the social and ecological domains too.<sup>5</sup>









#### THE STUDY

The Tamil Nadu chapter of CII, in line with the commitments laid out in the CCAC, has taken a key interest in understanding, analyzing, and assisting Micro, Small & Medium Enterprises' (MSMEs) impact on the environment and the economies of rapidly industrialized and developing states. MSMEs and startups have been CESD's focus for a very long time as they have the potential to develop into bigger and more successful firms over time. Given the large number of established MSMEs, transforming these companies into sustainable businesses will in turn help cities and the states in reducing their emissions, and improving their environment and surroundings. A small change in several business units can account for a larger impact given the large numbers of established businesses. A joint effort can facilitate overall improvement in the environment by bringing down emissions, improving working conditions, and increasing resilience which further leads to better business and living opportunities.

#### Phase - I

Sensitization Session The first of the three-phase approach of this initiative was kick-started by a general awareness session for interested companies held at the two different clusters namely Coimbatore and Tirupur, where business owners were given detailed insights into CCAC initiatives for climate action, the need for sustainability, and its reporting in businesses. They were made aware of all the possible risks businesses could face over a given period if the company's action plan wasn't resilient to the change brought about by the impacts of Climate Change.

#### Phase - II

CII Toolkit Introduction & Data Collection In the second phase, interested companies could become signatories of the Charter where they would be introduced to the CCAC tool that would aid companies in gathering and collecting data relevant to track and measure their emissions and overall impact. The tool is designed in the form of a questionnaire focused on collecting data that is pivotal in assessing the organization's size, the inherent risks it faces, and its preparedness to combat climate change.

#### Phase - III



The third and final phase of this report attempts to create awareness, identify the potential risk based on the region, and identify mitigation opportunities. This section of the report is focused on analyzing the gathered data in line with the guidelines provided by the Task Force on Climate-Related Financial Disclosures (TCFD), following which both insights on the risks and recommendations to mitigate those risks are provided as the outcome of this report.<sup>6</sup>





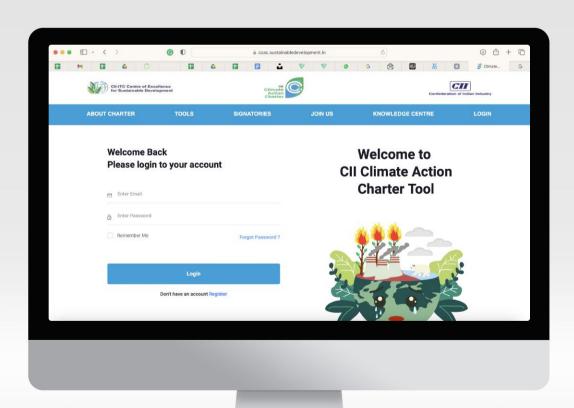


#### **CARBON CALCULATION TOOLKIT**

The CCAC toolkit is developed with the vision to assist companies to measure their carbon footprint, calculating their emissions, and generating results from it. The report should facilitate decision-making in setting the organization's short- and long-term goals. In addition to the toolkit, the handbook provided during the sensitization session together will help organizations in creating a sustainability report.

The signatories of CCAC gain access to various sessions and workshops organized that are focused on imparting information and knowledge on carbon management and reporting. It provides them with insights on how to reduce their current emissions, and the risks affecting their business. It provides organizations with up-to-date industry practices which can further help them create long-term roadmaps designed to tackle the risks of climate change and make the best use of opportunities arising from early onboarding of climate action.

CESD through this initiative looks ahead to create a network of climate action-focused organizations that can share and showcase their ongoing green / sustainability initiatives and improve each organization's competitiveness through the integration of sustainability in daily operations. Improving Environment, Social, and Governance (ESG) performance is an added benefit of working with the CCAC toolkit as ESG strategies and planning have garnered a lot of attention lately and are seen as one of the desirable factors in an organization to grant any benefits resulting from investments, schemes, and policies.<sup>7</sup>









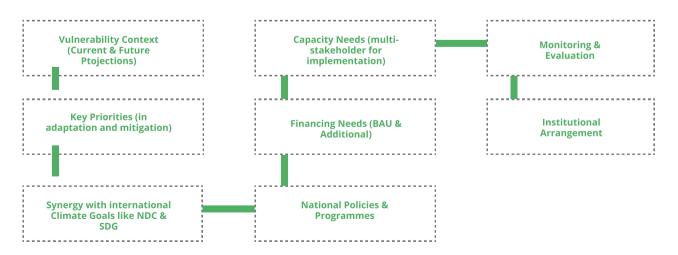
#### **CURRENT DEVELOPMENT**

With the development of both National and State Action Plans, several initiatives are anticipated to transform how businesses are conducted in India and across the state of Tamil Nadu. As a result of financial support and regulation that rewards companies that take an ESG- or climate change-oriented approach, organisations are beginning to show a significant level of interest in sustainability domains. Several companies are observed to voluntarily conduct emission measurements and provide such data through their yearly reporting, driven by both market factors and legal regulations.

One such mandate can be seen by the SEBI, India's governing body for the securities market which has already mandated the need for sustainability reporting through its developed format of BRSR guidelines for the top 1000 listed companies. While the mandate ensures disclosure for publicly listed companies, there is very little push for MSMEs in budding industrial regions that require further incentives to take up measurements and reporting. The dearth of such practices can be accounted for by the lack of awareness among small businesses, and in such scenarios local governments can set up certain means of reaching out to these entities.

The District Climate Mission is one such initiative, with its three key missions' approach and a financing of 90 million dollars to implement it. The mission emphasizes a bottom-up approach to climate adaptation. It aims at promoting local public participation and providing an opportunity to integrate community perspectives concerns and experiences, all while harnessing the rich knowledge embedded in departments and government agencies.

TNSAPCC is focused on developing strategies in coastal management to help mitigate the impact of climate change. The revised TNSAPCC 2.0 is focused on strengthening the state climate change cell, campaigning on climate awareness and education, etc. It believes in the strategy of capacity building which in turn helps in the dissemination of knowledge from the scientific and educational groups to grassroot levels where the most vulnerable sectors are being addressed and made more aware. The interventions are prioritized in the following manner where adaptability is of primary focus in highly vulnerable areas, low carbon development has been linked to mitigation measures and in some cases, a joint approach has been used while keeping in mind SDGs and NDCs, funding linkages and implementation potential.









The preliminary objective and approach by the TNSAPCC is to perform stock-taking for further implementation and to derive conclusions on success factors and challenges to mitigation and adaptation planning in Tamil Nadu. It will continue to revisit and update the plan, strategies, and actions as the plan progresses and development is visible. The flowchart above highlights the process followed by the state government in its approach toward addressing all issues resulting from Climate change.

The thought flow process can be utilized for different companies despite the varying disciplines and different structures. The approach works towards resolving issues at the initial stages and the step-by-step processes ensure all the essential factors are considered while making sure that a solution that is all-encompassing and well-rounded can still meet the national and local legislation requirements. Incorporating such thought processes in their method to address any issues about climate change to MSMEs can ensure that they are on track with the state action plan while resolving these issues in a better manner.

#### METHODOLOGY & APPLICATION OF THE STUDY

TCFD is a set of guidelines that aims at aiding companies in increasing transparency and providing better information to support informed capital allocation. The accompanying disclosure recommendations are structured around four thematic areas that represent core elements of how companies operate: governance, strategy, risk management, and metrics and targets. The four recommendations are interrelated and supported by 11 recommended disclosures that build the framework with information that should help investors and others understand how reporting organizations think about and assess climate-related risks and opportunities.

The guideline helps organizations to identify the potential in the transition towards sustainability and identifies various opportunities it can provide for early on-boarders and enablers. The financial implication of risks and transitions is extensively covered in the guidelines that assist organizations in identifying and classifying them.

Further, the recommendation helps organizations create an action plan and strategies concerning investments in a manner that can enable better use of financial tools to benefit the organization to adapt and mitigate risks and materialize the opportunities. Such will be the methodology that will be employed to carry out the analysis of the clusters.

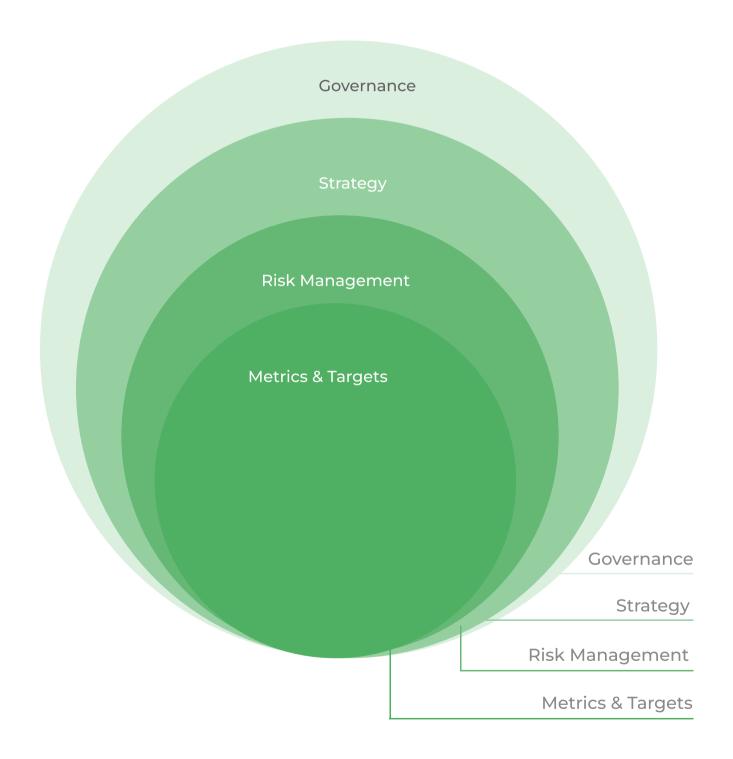
The process will first involve identifying all associated risks arising from the 1.5°C and 2°C change scenario and their impact on different aspects of the business as discussed in the chapter about climate change. Considering the scenarios, opportunities within the business that can positively impact the business are identified. Insights on financial impact are gained upon assessing the cluster's readiness to tackle risks and utilize opportunities. Furthermore, gaps are identified and recommendations along with a plausible action plan are provided for the clusters, sectors, and organizations to ensure preparedness for upcoming assessments.<sup>8</sup>







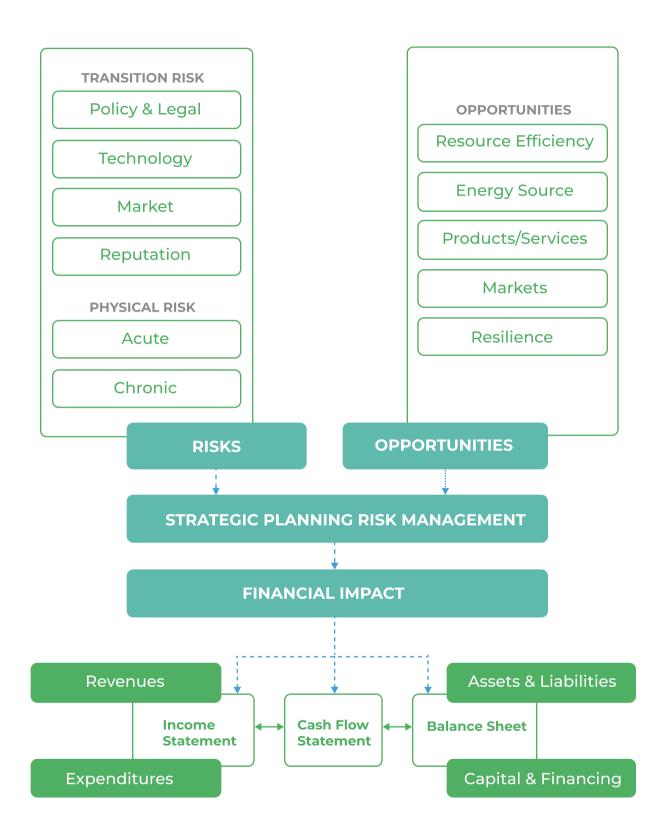
## TCFD GUIDELINES











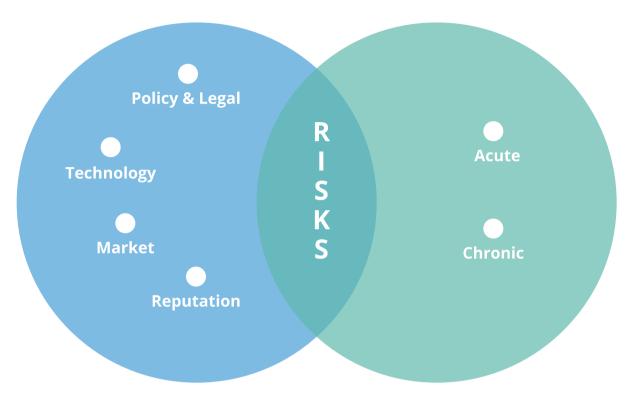
**TCFD Guildelines** 







## **Risks & Opportunities**



TRANSITIONAL RISKS

**PHYSICAL RISKS** 

## **PHYSICAL RISKS**



-Reduced revenue from decreased production capacity (e.g., transport difficulties, supply chain interruptions)



Reduced revenue and higher costs from negative impacts on workforce (e.g., health, safety, absenteeism)



Write-offs and early retirement of exisiting assets (e.g., damage to property and assets in "high-risk" locations)



Increased operating costs (e.g., inadequate water supply for hydroelectric plants or to cool nuclear and fossil fuel plants)



Increased capital costs (e.g., damage to facilities)



Reduced revenues from lower sales / output



Increased insurance premiums and potential for reduced availability of insurance on assets in "high-risk" locations







## **TRANSITIONAL RISKS**

#### **POLICY & LEGAL**

Increased operating costs(e.g.,higher compliance costs, increased insurance

Write-offs, asset impairment, and early retirement of existing assets due to policy changes

Increased costs and /or reduced demand for products and services resulting from fines and judgements







#### TECHNOLOGY RISKS



Research and development (R&D) expenditures in new and alternative technology development



Write-offs and early retirement of existing assets



Reduced demand for products and services



Costs to adopt/deploy new practices and

#### **MARKET RISKS**

Reduced demand for goods and services due to shift in consumer preferences

Increased production costs due to changing input prices(e.g., energy, water) and output requirements (e.g., water treatment)

Abrupt and unexpected shifts in energy

Change in revenue mix and sources, resulting in decreased revenues

Re-pricing of assets (e.g., fossil fuel reserves, land valuations, securities valuations)











#### REPUTATION RISKS



Reduced revenue from decreased demand for goods/services



Reduced revenue from decreased production capacity (e.g., delayed planning approvals, supply chain interruptions)



Reduced revenue from negative impacts on workforce management and planning (e.g., employee attraction and retention)



Reduction in capital availability







## **OPPORTUNITIES**

#### **MARKET**



Increased revenues through access to new and emerging markets(e.g., partnerships with governments, development banks)







#### **RESIILIENCE**



Increased reliability of supply chain and ability to operate under various conditions

Increased market valuation through resilience planning (e.g., infrastructure,

land, buildings)



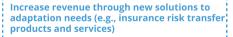
Increased revenue through new products and services related to ensuring resiliency



#### **PRODUCTS & SERVICES**



Increased revenue through demand for lower emissions products and services









#### RESOURCE EFFICIENCY



Reduced operating costs (e.g., through efficiency gains and cost reductions)



Increased production capacity, resulting in increased revenues



Increased value of fixed assets (e.g., highly rated energy efficient buildings)



Benefits to workforce management and planning (e.g., improved health and safety, employee satisfaction) resulting in lower costs

#### **ENERGY SOURCE**



Reduced operational costs (e.g., through use of lowest cost abatement)



Reduced exposure to future fossil fuel price



Reduced exposure to GHG emissions and therefore less sensitivity to change in cost of carbon



Returns on investment in low-emission technology



Increased capital availability(e.g., as more investors prefer lower-emissions producers)



Reputational benefits resulting in increased demand for goods/services







#### **OUTCOME**

Rapid development without a sustainable development model or strategy will often be followed by a plethora of issues with an impact on both the environmental and social levels. Such has been the case of the unmonitored and unaccounted development in the regions of Coimbatore and Tirupur. There is always a price to pay for development and if it isn't in the form of financial impact, it is the surroundings that degrade with time. Unprecedented growth in the industrial sector has been possible only due to the usage of heavy machinery which contributes towards the increasing GHG emissions year on year, accompanied by the depletion of natural resources, impacts of which will haunt these cities in the years to come.

The state of Tamil Nadu is already witnessing the impacts of an increase of mean annual temperature change of 1.18°C a little shy of the feared 1.5°C which can bring catastrophic changes. Reduced availability of drinking water is already being felt in 13 districts of Tamil Nadu region, due to the sea level intrusion caused by its 0.32mm rise every year. Six districts are anticipating the occurrence of intense cyclones in the coming years.

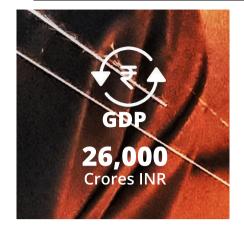
Rising temperatures, lesser precipitation, scarcity of water, and increased frequency of cyclones are some of the threats resulting from climate change whose impact does not limit to momentary damages but can contribute towards larger negative impacts on the environmental and social front. Depleting freshwater sources can bring about a large impact on cities and the state as it hinders all activities ranging from simple households to agricultural practices. The decline in agricultural produce can threaten the existence and livelihood of those residing in these regions. A decrease in agricultural production can heavily impact the development of those residing in these regions. It can increase dependency on the import of food products and produce from neighboring regions causing an increase in food prices and contributing to further GHG emissions resulting from transportation, such is the vicious cycle of climate change if not addressed at early stages.

Highlight - A one-meter rise in sea level would result in displacing approximately seven million people in India with the largest threats looming over coastal states.





































#### **WORKGROUP - COIMBATORE**

Coimbatore is the third largest and most developed city in Tamil Nadu. Situated on the banks of the river Noyyal, in the rain shadow region of the Western Ghats. This geographical position in addition to the rich black soil of the region has contributed to Coimbatore's flourishing agriculture industry and, it is the successful growth of cotton that served as a foundation for the establishment of its famous textile industry thus earning it the nickname of "the Manchester of South India". It is the development of Hydro electricity from Pykara Falls in 1930 that supported the cotton boom.

#### **Key Industries**







Pump Manufacturing



Grinder Manufacturing



Spares Manufacturing



Information Technology



Textile Manufacturing

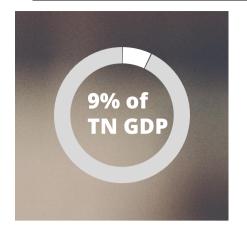
#### **INSIGHTS FROM THE STUDY**

- In the Coimbatore region, 52% of participant companies displayed a medium to general level of awareness of the vulnerability of their business to the risk posed by climate change.
- This is further reflected by roughly 50% of the companies being unaware of the magnitude of damage or disruption witnessed by them due to climate change. One of the reasons for the lack of awareness can be attributed to the general perception that climate risks come under the responsibility of the supply chain and very little under one's own operations or value chain. Despite encountering the firsthand impacts of cyclones, changing monsoon patterns, high temperatures, air pollution, etc. on their operations this lack of awareness hinders organizations from associating the growing problems with that of the global and local threats resulting from climate change.
- The situation may not look so bleak as perceived as 52% companies are in the process of developing targets and goals aligned to achieve net zero GHG. This process could be facilitated and fast tracked if initiatives are taken by the customers, local organizations or government to help them with building capacity and in-house knowledge through training.
- As a part of the vicious circle, 88% of companies lack funding to take up any such initiatives to transition to a sustainable working model. Around 22% of companies lack awareness and alignment to any global/national initiatives resulting in low sustainability reporting practices and emission measurement and no qualitative financing strategy making them less lucrative for any financing from both financial and government institutions.
- Despite low-scale setbacks such as delays in production being felt by the occurrences of climaterelated disasters or lack of water management in the region, there aren't many compliance requirements set up by customers. As a result, this does not create a need for reflecting on the optimization and transition towards sustainability in their respective businesses.





































#### **WORKGROUP - TIRUPUR**

Tirupur, the fifth largest city and urban agglomeration in Tamil Nadu apart from being one of the fastest-growing cities in India is also touted as the "Knitwear Capital of India". Tirupur single-handedly contributes towards 90% of India's cotton knitwear export, hence contributing significantly towards the foreign exchange in India. The textile industry of Tirupur caters to some of the largest retailers in the world including Nike, Adidas, Polo Ralph Lauren, Diesel, Tommy Hilfiger, M&S, FILA, H&M, and Reebok. The textile industry also employs about 5 - 6 lakh people both directly and indirectly.

#### **Key Industries**



Manufacturing of kitchen utensils made from brass, copper and aluminum



Manufacturing and export of finished garments is a key industry in Tirupur

#### **INSIGHTS FROM THE STUDY**

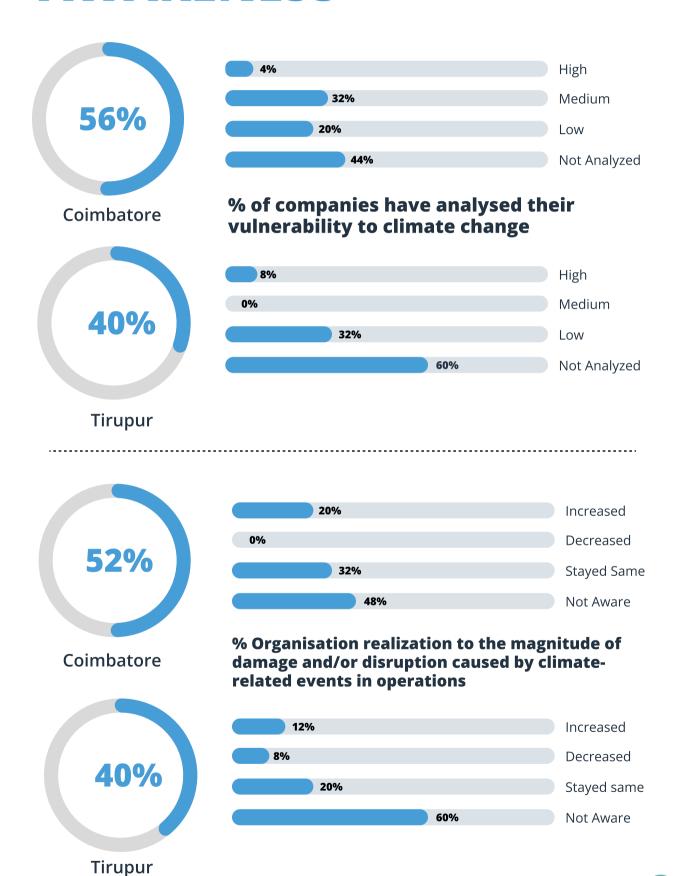
- Tirupur although being named as one of the major contributors to the deteriorating conditions of the Noyyal River has underperformed in its awareness of the domain of climate change and its associated risks.
- Despite facing landmark judgments being passed impacting the textile sectors, 60% of the participant organizations in Tirupur have not yet established an initiative to tackle climate change and this could be attributed to 50% of them being unaware of the extent of damages resulting from climate change. A rather interesting observation is that 38% of the companies face extreme sensitivity to water issues that impact production for more than 3 -4 months, only 15% of these companies contribute towards funding for meeting the additional requirement and only 7% have invested in funding for water conservation and its use. The above depicts the focus on addressing the issue through short-term measures over long-term initiatives that can provide recurring benefits.
- → With 43% of companies reporting impacts on operations due to high temperatures and air pollution, it is disheartening to note that none of the participant companies have taken up the inventory of their GHG emissions; this has been the case even with 69% of organizations being requested to comply with the requirements of their clients and end users. Clients or end users could further facilitate transitions in these organizations to comply with their requirements, but unfortunately, only 10% received financial and 15% received training support from their end users.
- Overall, approximately 90% of organizations have not yet sustainably aligned their companies' operations with either national or global initiatives on climate change. However, a handful of organizations, about 60% are either in the process or have proceeded with committing to net zero GHG emissions.







## **AWARENESS**









## **Insights**



This lack of awareness could have significant implications for the environment and the economy, as businesses are major contributors to greenhouse gas emissions and other forms of environmental degradation

#### WHAT COULD BE DONE?

The need for increased education and awareness-raising efforts around the importance of addressing climate change within the corporate sectorMandating Sustainability/ Environment department for each industry with atleast one representative or using any existing employees on shared responsibility basis, particualry to take care climate related initiatives, guide and train the organization so that Climate issues are addressed with the same importance as of others.

#### **SUPPORT FROM CII**

Organizing awareness sessions for companies on how they contribute to climate change and what they can do to reduce their emissions would be a positive step towards increasing corporate responsibility and sustainability



#### **Suggestive topics:**

(Industry specific)

a)How to do climate risk assessment b)How to develop net zero roadmap c)Subsidies and programs supporting net-zero transistion d)Sustainable procurement e)Best practices adopted in emission reduction

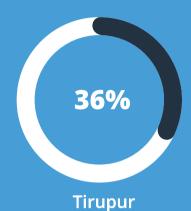






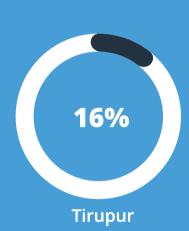
## **EMISSION REDUCTION**





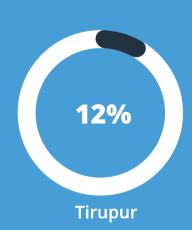
% of companies that have practices/ programs/initiatives to manage climate risk





% of organizations that maintain an inventory of its GHG emissions





% of companies committed to Net Zero GHG









## **Insights**

The lack of initiatives from companies to take climate action are due to the following factors

- No mandate or strict regulation in place for taking climate action
- Lack of public awareness and demand for sustainable products and services
- A Perception among some companies that sustainability efforts are costly and time-consuming
- Less understanding among companies regarding the long-term benefits of investing in sustainability, including cost savings and increased brand reputation
- Worried about cost & time for any additional initiatives or lack of motivation

#### WHAT COULD BE DONE?

Introducing policies and programs that encourage companies to invest in renewable energy, adopt sustainable practices, and reduce their carbon footprint, governments and industry associations can play a crucial role in promoting environmental stewardship

#### **SUPPORT FROM CII**

- Providing guidance and technical support to industries in developing and implementing emission reduction strategies
- Promote incentives and recognition for industries that achieve their emission reduction goals
- Facilitating collaborations and partnerships between industries to share knowledge, resources and best practices



Partner with instituitions/ incubators/do hackathons to solve industry specific emission reduction problems



Develop reward/recognition/ incentive program to encourage climate action for companies



Provide certifications to companies that have become climate neutral or reducing emissions.



Partner with climate consultants/solution providers/ experts in adopting best practices for emission reduction for the cluster and promote knowledge sharing



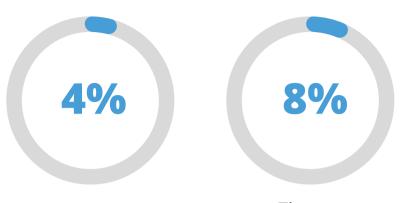
Develop a common GHG inentory that companies in the cluster can access







## **FINANCIAL SUPPORT**



Coimbatore

Tirupur

% of organizations receive financial support from Government, Suppliers or consumers for GHG reduction, energy saving, water conservation & recycling, etc

## **Insights**



Lack of awareness or no access to information on government support available for GHG emission reduction, energy saving etc

#### WHAT COULD BE DONE?

The need for greater collaboration between government and industry to develop policies and programs that support companies in their efforts to reduce their carbon footprint and contribute to a more sustainable future

#### **SUPPORT FROM CII**

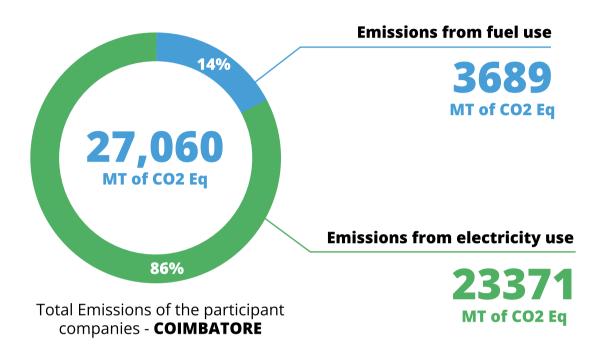
Programs and initiatives to mobilise green finance

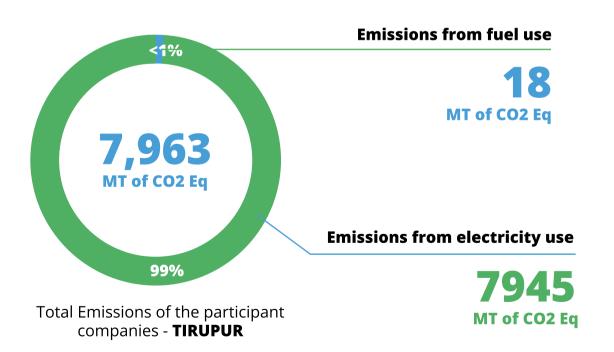




## **EMISSIONS**

(Based on the companies included in the study)





#### **RELIABILITY & RESILIENCE**

Building local production & climate adaptation strategy will result in building resilence and mitigate supply chain risks

#### **FOREIGN DIRECT INVESTMENT**

Net-zero clusters can attract foreign direct investments by demonstrating their commitment to sustainability and offering incentives to investors

#### **PROMOTE PARTNERSHIPS**

Company within the cluster could develop partnerships and share knowledge in addressing similar problems









Value creation for industrial cluster



#### **GREEN JOBS**

The green transition presents an opportunity to create new green jobs and train the workforce in sustainable practices







#### **GHG EMISSION REDUCTION**

Accelerated emission reduction can help in attaining national net-zero goals and alignment to international climate goals



#### **COST & COMPETITIVENESS**

Integrated emission reduction as a cluster leads to reduction in cost and process efficiency in production which adds competitiveness to the products developed in the market

#### **REDUCED ECOLOGICAL FOOTPRINT**

Reduction in resource consumption and promotion of circluarity yields a reduction in ecological footprint in the long-term

# OPPORTUNITIES FOR STAKEHOLDERS





# Opportunity for ralue creation

#### 1)Business opportunity

As consumer demand for environmentally-friendly products continues to grow. By investing in the development of low-carbon products, businesses can meet this demand and contribute to the transition to a more sustainable economy.

#### 2)Climate adaptation readiness

Implementing strategies to mitigate climate-related risks, capitalize on emerging opportunities in the low-carbon economy and developing resilient business models to ensure long-term success in a changing climate.

#### 1)Demonstrate leadership in climate action

Taking proactive decisions to achieve net zero targets and goals

#### 2)System value benefits

Unlocking social welfare by reducing emissions leading to cleaner air, water and reduce ecosystem damages

#### 3)Potential for job

creationDeveloping new jobs for people in and around the region

## Commitment needed

#### 1) Financial strategy and Capital commitment

To secure capital and long-term finance for emission reduction, companies must demonstrate a strong commitment to sustainability and put in place a clear strategy for reducing emissions.

#### 2)Collaboration and share resources

Collaboration and resource sharing among companies in an industrial cluster can help accelerate the transition to net-zero by leveraging collective knowledge, expertise, and resources to drive innovation, reduce costs, and promote sustainable practices

#### 1)Subside taxes to promote emission reduction

Providing tax benefits for companies reducing emissions could accelerate the net-zero transition

#### 2)Commitment to capital

Capital commitment on infrastructure development to aid in emission reduction of the cluster and support low-carbon intensive business models







Through multi-stakeholder collaboration, the industrial cluster can focus on sustainable development with effective economic growth and job creation for people







## 1)Fulfil climate commitments through net-zero financing:

Financial institutions play a critical role in fulfilling climate commitments by offering net-zero financing options that support sustainable and low-carbon projects, helping to accelerate the transition to a more sustainable economy.

#### 1) Increase visibility:

Solution providers for net-zero transistion like green energy companies, energy efficiency solutions, green fuel producers, waste recyclers etc can aid in the netzero ransistion of the cluster

#### 2)Scaling impact:

Potential in developing new lines of business and models of operations to work at a large scale

#### 1)Patents and academic literature:

Patents and academic literature that demonstrate cost reductions and efficiency improvements for key technologies, can pave the way for greater adoption of these technologies, driving innovation and progress towards net-zero industry cluster

#### 1)Capital commitment:

Commit capital to cross-sector, low-carbon infrastructure projects can help drive the transition to a more sustainable and resilient economy, while also promoting innovation and job creation.

#### 2)Stakeholder activism:

Encourage investee companies to reduce carbon emissions

#### 1)Leadership:

Strong leadership in supporting companies with effective solutions and agility to new specific market demand

### 2)Research and development:

Commitment of capital and resource for developing new solutions to solve the industry specific problem at scale

#### 1)Cross-sector collaboration:

Collaboration between research institutions, public and companies in developing & implementing low carbon technologies









XYZ Private Limited

#### **Sector:**

Manufacturing

#### **Turnover:**

128 Crores



(Sample company taken from the cluster)



Has not assessed the vulnerability of climate risks or damage caused by climate change to their operations



- Doesn't measure GHG emissions
- · Hasn't signed up for any climate initiatives
- No plans for GHG emission reduction
- Has no net zero commitment



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- Has no financial staretgy for addressing climate risks or transistion
- Is not aware of government support for emission reduction





# POTENTIAL RISKS

#### **Increasing climate change effects:**

Lack of awareness would lead to reacting to effects of climate with changing monsoon patterns, potential reduction in water supply and air pollution that could affect the city

#### **Competitive disadvantage:**

As the world transitions to a low-carbon economy, companies that don't adapt and invest in sustainable practices may find themselves at a competitive disadvantage. Investors and customers are increasingly seeking out companies with strong environmental, social, and governance (ESG) credentials.

#### **Regulatory risks:**

Governments around the world are implementing policies and regulations aimed at mitigating climate change. Companies that don't address their carbon footprint and emissions may face penalties, fines, or regulatory action

#### **Losing customer base:**

Companies in Europe and US are having strict compliances for sustainable procurement, this could led to companies losing customers if they don't produce plans for decarbonisation.

# **Benefits of Climate Action**



#### Improved reputation:

Companies that take proactive steps to address climate change can enhance their reputation and brand image, attracting customers and investors who prioritize sustainability.



#### **Cost savings:**

Many climate action measures, such as energy efficiency improvements and renewable energy investments, can reduce operating costs and increase profitability over time



#### **Increased resilience:**

Addressing climate risks can help companies build resilience to climate-related disruptions, such as extreme weather events and supply chain disruptions.



#### Access to new markets:

Developing sustainable products and services can open up new markets and customer segments, providing new opportunities for growth.



#### **Regulatory compliance:**

By addressing climate risks and reducing emissions, companies can ensure compliance with current and future climate regulations, avoiding potential penalties and fines.



#### **Employee engagement:**

Addressing climate change can be a powerful way to engage employees and build a strong corporate culture focused on sustainability and social responsibility.







# Conclusion

The risks associated with climate change are inevitable and as highlighted in all the Climate Change action plans, increasing awareness is the only way forward to set the wheels in motion. Lack of awareness in both clusters acts as a major roadblock for organizations to take any action on the risks that are present and felt but aren't addressed.

A plethora of opportunities are still being underutilized due to a lack of awareness. Empowering stakeholders to identify climate risks, provide help in mitigating them, and share with them the multitude of opportunities and offerings made available for them both locally and globally will only help the cluster, then the district, followed by the states, transition to a greener and more sustainable future.

Awareness amongst stakeholders is envisioned to be the most crucial factor in realizing any global and national goals. Organizations such as CESD, through their Climate Action Charter can help contribute towards this revolutionary cause. It helps organizations break the ice when it comes to discussing sustainability goals and targets. Providing access to relevant information based on their business and the available opportunities can optimize any organization's resources directed toward climate change mitigation and adaptation.

If the transition is not given much importance in the coming years, its financial implications can force several companies to close their doors as seen in the resistance move by farmers with the issue of river Noyyal. Climate change and its implications are already at play and its threat looms heavier with every passing year from increased energy costs, regulations & compliance requirements to scarcity of resources, climate change-aided migration will be a sure reality much earlier over a distant future.

CESD will provide a few planned initiatives for the year ahead, perhaps some targets and goals on the number of companies or clusters intended to be reached out to and if they would contribute towards raising awareness through sensitization sessions.







#### RECOMMENDATIONS & PROGRESS TRACKING

TCFD recommendations focus on the implementation of the four core elements and these TCFD provides detailed guidelines on how to optimize and ensure maximum transparency in disclosure of organization metrics. Since our approach will be cluster-wise, we shall utilize a similar approach but modify the recommendation in a manner that can be implemented both on a cluster and individual organization level.

#### **GOVERNANCE**

Any major transition in daily operations which are taken up to adapt or mitigate the risks identified results in a significant financial impact in turn directly affects the management that deals with all financial aspects of an organization. With the ability to make decisions on major financial impacts, it is the higher management that holds the ability to steer the company activities and operations towards sustainability.

The higher management must improve their understanding of climate change, and the threats that it can pose to their businesses and must explore all possible actions that they can take up to address both current impacts and possible risks in the foreseeable future. Lack of awareness with higher management impacts the overall business operations and there are no other possible incentives for the employees to pursue such ambitious targets without both the financial support and joint effort of the other employees.

#### **RISK MANAGEMENT**

Risk Management is essential in the process of transitioning toward sustainability. It helps companies anticipate possible scenarios and analyze all possible outcomes and this in turn can help them better assess the risks. A better understanding of risks can give a better insight into all the plausible solutions to either adapt the company's activities or directly mitigate the outcomes in the foreseeable future. A good practice of risk management equips organizations with all the necessary information and tools to address any situation without major setbacks as it covers even the aspects of financial impacts.







#### **STRATEGY**

With rising awareness, the management must identify key stakeholders whose involvement can impact the overall company's performance in the domain of sustainability. The key to optimizing and improving a particular process to achieve sustainability targets lies in identifying the activities and the relevant stakeholders. Upon identification, initiatives and corrective measures can be taken up to rectify the areas that have the potential for improvements. In this similar manner, the joint engagements of respective stakeholders and the optimization of the daily processes can help achieve the larger goals/targets set by organizations.

Monitoring and Tracking can be viewed as one of the most crucial parts of initiatives taken up to tackle climate change. Identifying certain indicators know key performance indicators (KPIs) can prove to be very beneficial for the stakeholders to make an informed decision for the various levels of organizations. It can further act as a motivator for organizations to work harder and strive towards the larger goals set by the companies. Further recommendations for setting KPIs are discussed in the following section for Metrics and Targets.

#### **METRICS & TARGETS**

As a part of the questionnaire in the Toolkit, the following question can aid participants to get a better insight into their performance towards their climate change goals and targets. These questions are essential for organizations to track their progress, identify shortcomings and strategize their action plan in a much more meaningful manner. Such questions form an indicator to assess performance and are usually known as KPIs or Key Performance Indicators. Due to its quantitative nature, comparing these indicators over several years can help organizations identify any bottlenecks and help address them.

- Estimated or projected total expenditure for climate change adaptation and mitigation measures in the organization?
- percentage of suppliers identified as having a significant actual or potential negative impact on environment/labour practices/human rights.
- percentage of employees who received training on sustainable supply chain and targets for the next 5 years.
- information on Scope 1, Scope 2, and Scope 3 emissions over the last 3 GHG inventories
- key initiatives to improve the efficiency of energy use and specify the energy intensity (in KWh used per rupee of revenue) of operations over the last 3 years.
- The magnitude of damage and/or disruption caused by climate-related events increased, decreased, or stayed the same?
- Does the organization provide incentives for climate change-related performance, including the attainment of targets for employees or relevant external stakeholder groups?







# CII



#### **Confederation of Indian Industry**

The Confederation of Indian Industry (CII) works to create and sustain an environment conducive to the development of India, partnering Industry, Government, and civil society, through advisory and consultative processes.

CII is a non-government, not-for-profit, industry-led, and industry-managed organization, with around 9,000 members from the private as well as public sectors, including SMEs and MNCs, and an indirect membership of over 300,000 enterprises from 286 national and regional sectoral industry bodies.

For more than 125 years, CII has been engaged in shaping India's development journey and works proactively on transforming Indian Industry's engagement in national development. CII charts change by working closely with Government on policy issues, interfacing with thought leaders, and enhancing efficiency, competitiveness, and business opportunities for industry through a range of specialized services and strategic global linkages. It also provides a platform for consensus-building and networking on key issues.

Extending its agenda beyond business, CII assists industry to identify and execute corporate citizenship programmes. Partnerships with civil society organizations carry forward corporate initiatives for integrated and inclusive development across diverse domains including affirmative action, livelihoods, diversity management, skill development, empowerment of women, and sustainable development, to name a few.

As India strategizes for the next 25 years to India@100, Indian industry must scale the competitiveness ladder to drive growth. It must also internalize the tenets of sustainability and climate action and accelerate its globalisation journey for leadership in a changing world. The role played by Indian industry will be central to the country's progress and success as a nation. CII, with the Theme for 2023-24 as 'Towards a Competitive and Sustainable India@100: Growth, Inclusiveness, Globalisation, Building Trust' has prioritized action themes that will catalyze the journey of the country towards the vision of India@100.

With 65 offices, including 10 Centres of Excellence, in India, and 8 overseas offices in Australia, Egypt, Germany, Indonesia, Singapore, UAE, UK, and USA, as well as institutional partnerships with 350 counterpart organizations in 133 countries, CII serves as a reference point for Indian industry and the international business community.







# **CESD**



CII-ITC Centre of Excellence for Sustainable Development is a not-for-profit, industry- led institution that helps business become sustainable organizations. It is on a mission to propagate innovative ideas and solutions in India and globally, to enable business, and its stakeholders in sustainable value creation. CESD has leveraged its role as an all- inclusive ecosystem player, partnering industry, government, and civil society. It has been a pioneer of environment management systems, biodiversity mapping, sustainability reporting, integrated reporting, and social & natural capital valuation in India, thus upgrading business in India to sustainable competitiveness.

Since its inception in the year 2006, CII-ITC CESD has evolved with a tremendous trajectory, starting off with the incubation phase of introducing business services, right through augmenting manpower capacity in other cities since 2013, eventually scaling up to the highest rung of strengthening work on macro-economic issues with both domestic and global policy interventions.







# CCAC



The CII Climate Action Charter (CCAC) is a platform for Indian businesses to address climate change as a material risk and develop long-term actions to build resilience. It aims to facilitate sectoral climate actions and showcase best practices for addressing climate risks. The CCAC will promote collective action by Indian businesses towards a just, equitable, and resilient transition and help build sustainable and competitive businesses.

MSMEs can play a significant role in driving energy transition to a more sustainable and equitable future. The MSME Toolkit is a unique and comprehensive platform created in line with the CII Climate Action Charter (CCAC). The toolkit provides MSMEs with a platform for assessing their vulnerability to climate-related hazards, raising awareness, and developing short- and long-term resilience measures. The toolkit helps in GHG foot-printing through an easy-to-use tool for calculating Scope 1 and Scope 2 emissions, allowing MSMEs to assess their carbon footprint and take appropriate mitigation measures across different scopes. The toolkit also addresses the climate-related risks that Indian MSMEs face by taking a comprehensive and collaborative approach.

The toolkit enables MSMEs to take ownership of their climate action transition by mapping climate change as a material risk across their value chains. It allows them to build resilience, develop sustainable practices and showcase best practices. The toolkit promotes a collective assessment of climate-related vulnerabilities, with a focus on collaboratively finding solutions for a just, equitable, and resilient transition.







#### **ANNEXURE -RISKS**

#### **CLIMATE-RELATED RISK**

#### **POTENTIAL FINANCIAL IMPACTS**

#### **POLICY & LEGAL**

- · Increased pricing of GHG emissions
- · Enhanced emissions
- · reporting obligations
- Mandates on and regulation of existing products and services
- · Exposure to litigation
- Increased operating costs(e.g.,higher compliance costs, increased insurance premiums)
- Write-offs, asset impairment, and early retirement of existing assets due to policy changes
- Increased costs and /or reduced demand for products and services resulting from fines and judgements
- Approach by farmers union in 2013 caused the closure of several dyeing and bleaching units as a result of the effluents discharge to the river basin that led to the destruction of several livelihoods
- BRSR Reporting Disclosures requirements from SEBI
- Mandatory Energy Audit for Designated Consumers

#### **TECHNOLOGY**

- Substitution of existing and services with lower emissions options
- Unsuccessful investment in new technologies
- Costs to Transition to lower emissions technology
- Write-offs and early retirement of existing assets
- Reduced demand for products and services
- Research and development (R&D) expenditures in new and alternative technology development
- Costs to adopt/deploy new practices and processes
- Constant pressure for new and existing business to invest in Effluents treatment prior to discharge and create a better sewage treatment facility to improve and protect groundwater.
- About 30% of the units in the cluster have good financial strength and are implementing various energy efficiency measures. The remaining 70% of the units in the cluster do not have adequate financial strength to implement the identified EE measures as it requires considerable investment. Such amount of significant investment is not commonly seen in the cluster units, as these industries have low financial strengths. The majority of the textile unit owners do not have in-depth technical expertise, knowledge, or training about energy efficiency, and are dependent totally on local technology suppliers or service companies, who normally rely on established and commonly used technology. The lack of technical knowhow made it impossible for the textile unit owners to identify the most effective technical measures. Though, some of the SME owners are interested in implementing energy efficiency measures, the lack of knowledge and technical knowhow, made them to depend on the local suppliers.

#### **MARKET**

- · Changing customer behaviour
- Uncertainty in market signals
- · Increased cost of raw materials
- Reduced demand for goods and services due to shift in consumer preferences
- Increased production costs due to changing input prices(e.g., energy, water) and output requirements (e.g., water treatment)
- Abrupt and unexpected shifts in energy costs
- Change in revenue mix and sources, resulting in decreased revenues
- Re-pricing of assets (e.g., fossil fuel reserves, land valuations, securities valuations)

- Client requirements towards sustainability & HSE compliances
- Funding prerequisites inclined towards ESG Compliance







#### **CLIMATE-RELATED RISK**

#### **POTENTIAL FINANCIAL IMPACTS**

#### **REPUTATION**

- · Shifts in consumer preferences
- · Stigmatization of sector
- Increased stakeholder concern or negative stakeholder feedback
- Reduced revenue from decreased demand for goods/services
- Reduced revenue from decreased production capacity (e.g., delayed planning approvals, supply chain interruptions)
- Reduced revenue from negative impacts on workforce management and planning (e.g., employee attraction and retention)
- · Reduction in capital availability
- The constant demonization of the locality due to arising health concerns of both individuals and the animal livestock will trigger a climate change facilitated migration which will lead to reduction natural resources and most crucial of all the availability of good workforce.

#### **ACUTE**

 Increased severity of extreme weather events such as cyclones and floods

#### **CHRONIC**

- Changes in precipitation patterns and extreme variability in weather patterns
- · Rising mean temperatures
- · Rising sea levels

- Reduced revenue from decreased production capacity (e.g., transport difficulties, supply chain interruptions)
- Reduced revenue and higher costs from negative impacts on workforce (e.g., health, safety, absenteeism)
- Write-offs and early retirement of existing assets (e.g., damage to property and assets in "high-risk" locations)
- Increased operating costs (e.g., inadequate water supply for hydroelectric plants or to cool nuclear and fossil fuel plants)
- Increased capital costs (e.g., damage to facilities)
- Reduced revenues from lower sales / output
- Increased insurance premiums and potential for reduced availability of insurance on assets in "high-risk" locations

- An approximate of 300 500 bn dollars of economic loss is anticipated with every occurrence of climate change related disasters and the frequency of occurrences have only increased in the last two decades
- Agriculture has taken a big hit due to the lack of water for irrigation thus limiting crops varieties heavily and making this sector heavily dependent on rain based irrigation which has become scarce.

#### **OPPORTUNITIES**

#### **CLIMATE-RELATED**

#### **POTENTIAL FINANCIAL IMPACTS**

- Use of more efficient modes of transport
- Use of more efficient production and distribution processes
- · Use of recycling
- · Move to more efficient buildings
- Reduced water usage and consumption
- Reduced operating costs (e.g., through efficiency gains and cost reductions)
- Increased production capacity, resulting in increased revenues
- Increased value of fixed assets (e.g., highly rated energy efficient buildings)
- Benefits to workforce management and planning (e.g., improved health and safety, employee satisfaction) resulting in lower costs
- BEE associated schemes to facilitate improved energy efficiency in already established industries







#### **CLIMATE-RELATED**

#### **POTENTIAL FINANCIAL IMPACTS**

- Use of lower-emission sources of energy
- · Use of supportive policy incentives
- · Use of new technologies
- · Participation in Carbon market
- Shift toward decentralized energy generation
- Reduced operational costs (e.g., through use of lowest cost abatement)
- Reduced exposure to future fossil fuel price increases
- Reduced exposure to GHG emissions and therefore less sensitivity to change in cost of carbon
- Returns on investment in lowemission technology
- Increased capital availability(e.g., as more investors prefer loweremissions producers)
- Reputational benefits resulting in increased demand for goods/services

 Availability of Financial schemes with Local Banks for Improving Energy Efficiency in the Cluster focused on energy conservation in textile cluster in Tirupur

**PRODUCTS & SERVICES** 

**ENERGY SOURCE** 

# **MARKETS**

# RESILIENCE

- Development and / or expansion of low emission goods and services
- Development of climate adaption and insurance risk solutions
- Development of new products or services through R&D and innovation
- Ability to diversify business activities
- · Shift in consumer preferences
- Increased revenue through demand for lower emissions products and services
- Increase revenue through new solutions to adaptation needs (e.g., insurance risk transfer products and services)
- Better competitive position to reflect shifting consumer preferences, resulting in increased revenues
- Access to new markets
- Use of public-sector incentives
- Access to new assets and locations needing insurance coverage
- Increased revenues through access to new and emerging markets(e.g., partnerships with governments, development banks)
- Increased diversification of financial assets (e.g., green bonds and infrastructure)
- Participation in renewable energy programs and adoption of energy efficiency measures
- Resource substitutes  $\slash$  diversification
- Increased market valuation through resilience planning (e.g., infrastructure, land, buildings)
- Increased reliability of supply chain and ability to operate under various conditions
- Increased revenue through new products and services related to ensuring resiliency







opportunities and

targets.

performance against

## **ANNEXURE**

#### **GUIDELINE ON TCFD RECOMMENDATION**

different climate-related

lower scenario.

scenarios, including a 2°C or

GOVERNANCE	STRATEGY	RISK MANAGEMENT	METRICS & TARGETS	
Disclose the organization's governance around climate related risks and opportunities	<ul> <li>Disclose the actual and potential impacts of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning where such information is material.</li> </ul>	<ul> <li>Disclose how the organization identifies, assesses, and manages climate-related risks.</li> </ul>	<ul> <li>Disclose the metrics and targets used to assess and manage relevant climate- related risks and opportunities where such information is material.</li> </ul>	
GOVERNANCE	STRATEGY	RISK MANAGEMENT	METRICS & TARGETS	
Describe the board's oversight of climate-related risks and opportunities  Describe management's role in assessing and managing climate-related	<ul> <li>Describe the climate-related risks and opportunities the organization has identified over the short, medium, and long term.</li> <li>Describe the impact of</li> </ul>	<ul> <li>Describe the organization's processes for identifying and assessing climate-related risks.</li> <li>Describe the organization's processes for managing</li> </ul>	<ul> <li>Disclose the metrics used by the organization to assess climate- related risk and opportunities in line with its strategy and risk management process.</li> </ul>	
risks and opportunities	climate- related risks and opportunities on the organization's businesses, strategy, and financial planning.	climate-related risks.  Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the	<ul> <li>Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks.</li> </ul>	
	<ul> <li>Describe the resilience of the organization's strategy, taking into consideration</li> </ul>	organization's overall risk management.	<ul> <li>Describe the targets used be the organization to manage climate-related risks and</li> </ul>	







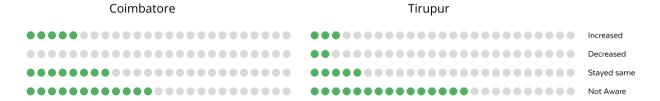




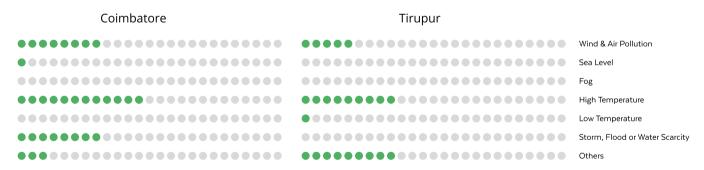
#### Any practices/programs/initiatives to manage climate risk



# Organisation realization to the magnitude of damage and/or disruption caused by climate-related events in operations



#### Climate-related factors have impacted the operations of the organization



# The organization's identified climate risks fall under which part of the value chain?









#### Does the organization maintain an inventory of its GHG emissions



# Is the organization associated with any other global/national initiatives on climate change



#### Are you committed to Net Zero GHG



# Does the organization publish its climate-related information in a Sustainability Report or Integrated Report



# Does the organization publish its climate-related information in a Sustainability Report or Integrated Report

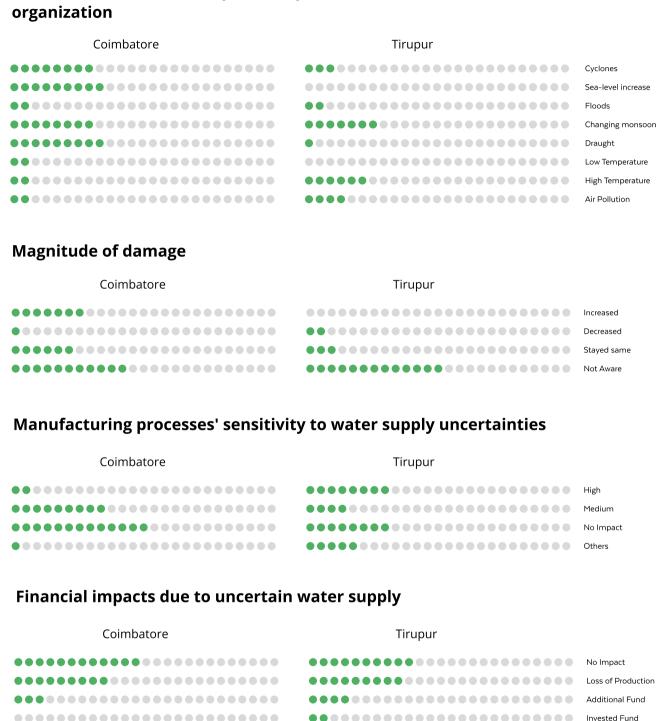


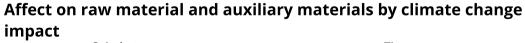






# Climate-related factors impact on operations of the organization





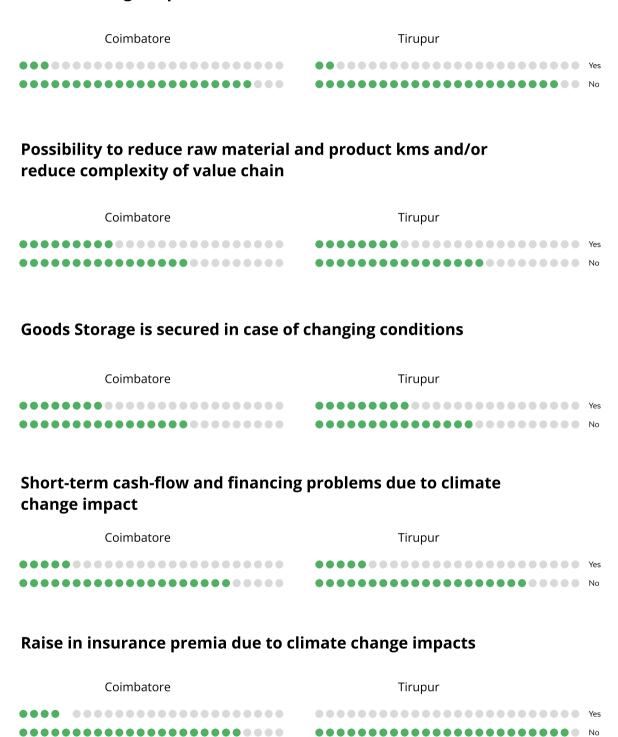








# Flexibility in transport and delivery of goods in case of climate change impacts









# Consumer or supplier requirement for GHG Emission, water usage, environmental data



#### Consumer or suppliers provide training on Climate change



Organizations receive financial support from Government, Suppliers or consumers for GHG reduction, energy saving, water conservation & recycling, etc









NOTES







