





PAKISTAN'S CLIMATE CROSSROADS

Private Sector Solutions to Pakistan's Climate Challenges

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PAKISTAN CLIMATE Conference 2023

The report "**Pakistan's Climate Crossroads: Private Sector Solutions to Pakistan's Climate Challenges**" has been developed based on key discussions and recommendations highlighted by experts during the 2nd Pakistan Climate Conference 2023, organized by the Overseas Investors Chamber of Commerce and Industries (OICCI) with partner organizations.



The OICCI is the oldest and largest Chamber of the country in terms of economic contributions. The Chamber represents over 200 foreign investors in Pakistan, including many Fortune 500 companies. OICCI members have invested more than \$21 billion since 2012, paid one-third of the total taxes collected in 2021 and contributed around Rs. 13 billion to CSR activities during the last year. The Chamber is also the first port of call for foreign investors interested in Pakistan as an investment destination.

OICCI commitment to Pakistan's climate action led to it hosting a high level panel with the Ministry of Climate Change at COP28 in Dubai on December 09, 2023. Focused on 'Decarbonization and the Role of the Private Sector,' the panel discussed mobilizing private capital for Net Zero carbon emissions and strengthening public-private partnerships.

The panellists were industry experts from various sectors, who emphasized the urgency for businesses to decarbonize supply chains through circularity, efficiency, and renewable power.

OICCI, recognized as a critical platform, was appreciated for its role in mobilizing business coalitions to drive sustainable practices and influence public policies. The dialogue at COP28 was a firm commitment to sustainable practices and supporting Pakistan's climate goals.

Disclaimer

This paper represents the opinions of the authors and is the product of professional research and discussions in 2nd PCC 2023. It is not meant to represent the position or opinions of the OICCI or its Members.





Pakistan's Climate Action: Current Plans and Needs Assessment





Pakistan's Climate Action

CURRENT PLANS AND NEEDS ASSESSMENT

The science around climate change has been settled and it is now acknowledged as one of the most potent threats to life as we know it on the planet Earth.

Rising temperature of the earth due to the rapid increase in global Greenhouse Gas (GHG) emissions (36.8 Gt in 2022 from 24.6 Gt in 2000)¹ has thrown Natural ecosystems out of sync, and has triggered a 'Tripple Planetary Crisis' of climate change, nature and biodiversity loss, and pollution. We are already into the sixth species extinction.

The rapid increase in global greenhouse gas emissions



Global negotiating platforms, like the Conference of the Parties (COP) held under the aegis of the UN had come to an agreement in Paris during COP21 that unless milestone driven actions were not taken to limit the rise of global temperature to 1.5 degrees of pre-industrial levels, the results will be catastrophic

According to Intergovernmental Panel on Climate Change (IPCC), the GHG emissions must be stabilized by 2025 and reach Net Zero by 2050

This is the new target the world must work towards, but all indications are that we have already crossed the 1.5 limit and are headed to a 2-degree plus rise. The Nationally Determined Contributions (NDCs) for emission reduction remain a shifting goal post.

Not only is the science around climate change settled, the fact that its impacts have a disproportionate effect due to geography, and level of socio economic impact are also now well recognised. Climate Change is the future that is here, right now. Countries of Global South, , especially in South Asia, like Pakistan, are already facing the brunt.

¹ International Energy Agency (IEA), "CO2 emissions in 2022" Accessed on: November 1, 2023. Available at: <u>https://www.iea.org/reports/co2-emissions-in-2022</u>



Pakistan is a very low emitter, of **Green House Gases**, **(0.9%)** and ranked at 158th. out of a list of 184 countries. However, its geography, terrain and the unequal development has placed it in the top ten bracket of the Global Vulnerability Index issued by the think tank German Watch each year. It has barely slipped out of ths bracket over the past decade and a half, which has seen the economy and human development take a nosedive due to the exogenous shocks triggered by Climate Change events.

Despite being a very low contributor, as a responsible global citizen, Pakistan has signed up to mitigation measures that will facilitate its journey to Net Zero. In keeping with the Article Six of the Paris Agreement, which called for the unlocking of the 'New Market Mechanisms,' by incentivizing the private sector to invest in climate-friendly solutions, Pakistan's business community, especially the overseas businesses represented by the OICCI, stepped up to be partners in this journey.



The Pakistan climate story is a story of paradox. The more you grow, the more carbon you emit in the atmosphere. As responsible corporate citizens, we need to realize that if you really want to grow our businesses, it cannot come at the cost of climate anymore. We are nowhere when it comes to emission, but when it comes to impact and vulnerability, we are the fifth most vulnerable country in the world. On one side, we need to start advocacy; on the other side, we need to have our own internal organization working towards moving towards green energy.

Compliances to global standards for achieving circularity in processes, green growth and setting targets for moving towards Net Zero became paramount in the discourse among the members of the OICCI and the Pakistan Climate Conference resulted from the desire to be seen as an industry leader.

If the first Pakistan Climate Change conference showcased the intent, and existing expertise within the industry, the second one saw OICCI move a notch above by having a significant presence at the COP28.



The accelerated corporate and business-specific action was also a response to industry reports highlighting the inherent risks of 'Business as Usual' as specific risks and needed responses were laid out:

In Asia, *McKinsey's report* projects that by 2050, the region may face an average **annual GDP risk of between \$2.8 trillion and \$4.7 trillion** due to decreased outdoor working hours caused by rising heat and humidity. These conditions lead to quicker fatigue and necessitate more frequent breaks for the workforce.

Additionally, it is anticipated that approximately \$1.2 trillion worth of capital stock in Asia may be susceptible to damage from riverine flooding in a single year by 2050, which is equivalent to roughly 75 percent of the global impact.

Reference: Climate risk and response in Asia (2020)

This report, prepared after the 2nd Pakistan Climate Conference by OICCI, analyzes the current practices, opportunities, and challenges the private sector of Pakistan poses to the climate action by bringing together the technology, data, and action through their corporate social responsibilities (CSR).

It also discusses the meaningful reforms through green technologies and emerging standards to cut emissions and assist in meeting Pakistan's NDCs.

KEY FOCUS AREAS OF THIS REPORT ARE



RESILIENCE & CAPACITY BUILDING



PLASTIC AND WASTE MANAGEMEN T



EMISSIONS AND CLEAN ENERGY GREEN

FINANCING & CARBON MARKETS



REHAN SHEIKH - Vice President OICCI and CEO SCBL

We need to link return on private sector investments with sustainability and consider green transition as a mean to provide new jobs and livelihoods.





PAKISTAN'S CLIMATE VULNERABILITY

Pakistan's CO₂ emissions

Although Pakistan is a low polluting country, it is embarking on a trajectory marked by substantial growth in carbon emissions. Pakistan's CO_2 emissions have averaged 84 Mt from 1960 to 2021, reaching an all-time high in 2022 (over 450 Mt).



worst country in economic losses due to climate change •

Most affected in fatalities per 100,000 inhabitants

Figure 2 Overview of Pakistan's Climate vulnerability

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encompassing equity

in carbon trading and

the intergenerational

aspect of climate

investment

PAKISTAN FLOODS 2022:

The cost of climate change in Pakistan is evident from the extreme impact of 2022 floods, causing around 1700 deaths, 13000 injuries, 1.1 million livestock losses, and damage to around 2 million houses. The World Bank estimates suggest that these floods have **an approximate economic cost of around \$40 billion**.

Furthermore, apart from carbon emissions, Pakistan is among the top methane emitting countries and has one of the highest shares of mismanaged plastic waste. Each year, the country generates around 3.3 million tons of plastic waste that either remains mis-managed or dumped in open landfills. This detrimental practice not only harms the environment but also poses health risks to the population. Similarly, Pakistan contends with the generation of approximately 433 kt of electronic waste (e-waste) in 2019, "digital leading to substantial dumpsites".



-CE/Secretary General, OICCI

The materials introduced for community rebuilding initiatives in Pakistan contribute to carbon emissions, including concrete and steel structures, without adequate ecological consideration. Simply creating a first aid mechanism will not suffice for repairs. Instead, we require sustainable solutions that take into account local contexts and materials. Our focus should be on investing in ideology, research, and long-term solutions rather than quick fixes.

PAKISTAN'S CLIMATE MITIGATION AND ADAPTATION PLAN

The NDCs lay out a pathway to moving towards Net Zero. However, the stage of socio economic development Pakistan is at present compels it to set targets to meet a level of development that can allow it to meet its poverty alleviation targets.

This cannot be done without a level of industrial development that would see its emissions grow. The NDCs are very clear about the conditions that will need to be met for Pakistan to be able to taper off its emissions as outlined in the pathway.

NDC Commitments

As per the current trajectory, Pakistan is aiming to limit its GHG emission to 801 Mt by 2030, which otherwise would increase beyond 1601 Mt (the Business-as-Usual Scenario).







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Annexure on Page 23 further highlights the key actions taken by Pakistan under various policies and roadmaps, while the sectoral emissions are depicted below.









THE SIGNIFICANT ROLE OF CORPORATE SECTOR

In the backdrop of opportunities and plans defined above, the private sector has to play a critical role in enabling climate action.

A major trend has been observed in this regard over the past years. At COP26 over 5,200 companies made commitments to achieve Net Zero carbon emissions by 2050.



Additionally, a coalition of major automakers have pledged to halt the sale of vehicles powered by fossil fuels by 2035. Around 450 banks, insurers, and investors collectively managing assets totaling \$130 trillion and accounting for **40%** of the world's private capital, have pledged to transition their portfolios to become climate-neutral by 2050.





CO₂

to address climate change:

The OICCI, representing over 200+ prominent foreign investors in Pakistan, has consistently played a leading role in generating positive socio-economic impact within the country.



In 2022, OICCI members collectively contributed over Rs. 12 billion to corporate social responsibility initiatives, including Rs. 1.5 billion allocated for environmental protection.



The OICCI is unwavering in its commitment to proactively minimize its climate impact and achieve Net Zero well before the 2050 deadline



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ANDREW BAILEY

-MD BASF, Managing Committee Member of OICCI

Exploring the role of carbon credits and financial institutions is essential for funding climate projects. Global best practices in ESG reporting to comply and attract funding are of critical importance.







EMISSIONS ANALYSIS PLATFORM (LEAP) MODEL

Decarbonization pathways for Pakistan under different scenarios taken from SDPI's recent analysis using Low Emissions Analysis Platform (LEAP) model.

Pakistan's climate actions also require a strong role to be played by the corporate sector of Pakistan. Figure 4 highlights the decarbonization pathways for Pakistan under different scenarios taken from SDPI's recent analysis using Low Emissions Analysis Platform (LEAP) model.



Figure 4 Decarbonization scenarios for Pakistan through LEAP modeling



To achieve these decarbonization goals a potential decarbonization

potential decarbonization pathway and proposed emission reductions based on current readiness and policy landscape is defined in Figure 5.

REBECCA MARMOT

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-Global Chief Sustainability Officer, Unilever

To accelerate change, we mustn't shy away from highlighting where we, and others, can do better – and how government action is needed to drive this effort. For example, businesses cannot take on additional costs without being penalized by the market. Therefore, government and industry must work together to create a level playing field that supports the green technology that allows our factories to run on solar.





Environmental sustainability is no longer an ethical concern but a strategic imperative for businesses. Corporations that proactively address climate change, reduce their environmental footprint, and invest in resilience strategies are better positioned to weather these challenges. They not only protect their financial stability but also gain a competitive advantage by demonstrating a commitment to sustainability and responsible business practices.

Given this, the private sector of Pakistan over the past years has also taken substantial steps by incorporating sustainability in their development plans (see annexure 4 for further details).

DR. SHAMSHAD AKHTAR

Then Finance Minister

We need to incorporate green initiatives in our macro economic policy for example climate financing, green bonds and debt to nature swaps.



ANNEXURE 1 Climate Change: A threat to economic security ANNEXURE 2 Pakistan Climate Mitigation and Adaptation Plans ANNEXURE 3 Pledges at COP28

ANNEXURE 4 Climate Journey of Selected

Journey of Selected OICCI Members

Figure 6 Pakistan's Private sector efforts to combat climate crisis.



DEVELOPMENTS AT COP28 AND THE INCREASING ROLE OF PRIVATE SECTOR

The year 2023 marked the twenty-eighth session of the conference of Parties i.e., COP28, which served as a crucial gathering where global leaders, ministers, and negotiators collaborate to formulate strategies for tackling climate change. COP28 had a significant importance as it marked the culmination of the first ever global stock take that accounts for the action which parties have taken to address climate change. Further, COP28 marked some key achievements ranging from operationalization of the Loss and Damage Fund to the call for transitioning away from fossil fuels. Moreover, COP28 ushered in a series of new global commitments, addressing a wide range of issues, including emissions from oil and gas companies, the threefold increase in renewable energy, energy efficiency considerations for food systems, methane reduction, carbon markets and strategies for enhancing the seamless integration of efforts to combat climate change and biodiversity loss. For Pakistan, this provides a wave of opportunities, and it becomes imperative to transition from consensus-building to the practical realization of commitments. The key pledges made at COP28 are further attached in Annexure 3.

COP28 also holds a significant importance for the private sector as it witnessed the highest participation of global CEOs ever recorded, highlighting the significant role that private sector plays in influencing climate outcomes.

For private sector climate action, some of the key outcomes in COP28 were: First ever inclusion of **"Circular Economy System Transitions"** in negotiations outcomes.

130 countries committed to triple renewable energy capacity by 2030 and double the rate of energy efficiency improvement to over 4%.

Commitments around linking carbon and energy transition to value creation for the corporate sector.

Call for the development of **"Robust** Climate Transition Action Plan".

Proactively preparing for disclosures around global and national standards (e.g ISSB or CSRD).





Frontiers for Climate Action

Opportunities and Challenges for the Private Sector of Pakistan





It is evident that the private sector will be a critical player in addressing Pakistan's climate solutions. Once seen as the driver of environmental degradation, corporates now have a role of driving the green transition. This section identifies the frontiers of this transition by analyzing the challenges and opportunities that need to be addressed.

CLEAN ENERGY TRANSITION

OICC

Despite a high potential and supporting policy framework around RE, its growth has remained a major challenge in Pakistan. Although the private sector has contributed to it by developing various wind energy plants in the Jhimpir wind corridor and solar PV installations, its current utilization is well-below its potential and the policy targets prescribed under the policies.

Sector	Challenges	Policy Actions
Fostering RE growth	 Policy and regulatory uncertainties in the power sector. Project development delays. Renewable Energy transition cost and financing models. Energy market and technological challenges. Supporting playing field for fossil fuels. Limited discourse on RE financing. Outdated grid infrastructure. 	 To foster tripartite discussion between project developers and government entities, a steering committee to be developed to address the ongoing payment delays and outstanding dues. Capacity building around fiscal management provision of Pakistan's power sector, targeting special skills such as governance, competitive markets, etc. Expediting the power wheeling regulations by developing a consensus on pricing regime. Open communication channels that can explain key topics such as must-run status of RE, power evacuation capacity, project risk assessment, etc. Provision of concessional financing schemes for RE offtake.
Decentralized RE solutions	 Lack of policy and regulatory provision. Limited capacity and funding sources. Lack of feasibility studies. Limited technological growth. Limited localized solutions. 	 Formulating "Technical Assistance Programs" that aim to build the capacity of community based organizations and relevant NGOs. Developing financing models for mini/micro RE grids through PPPs. Increased focus on RE based services including cooking, heating, etc.
		<u> </u>

UPTAKE OFELECTRIC VEHICLE INDUSTRY

Pakistan's E-mobility is crucial for its clean energy transition, aligning with NDCs targeting a **30% shift to electric vehicle (EV) sales**. The global EV market presents a strong business case for Pakistan, despite challenges in regulatory, institutional, environmental (macro), and supply, infrastructure, and demand (micro) aspects.

Policy Actions

- Lack of ownership for EV policy and changing regulatory provisions.
- Non-compliance or absence of standards
- Disconnect between stakeholders.

Challenges

• High cost and lack of financing models.

• For increased private sector participation, there is a need for the provision of credit systems such as tax exemptions, lower import duties, preferential loans, and etc.

- A single window clearance for mobilizing the EV-relevant startups to fast-track the registration process.
- Developing an "interoperability framework" for standardized battery packs, management protocols, testing facilities, and an oversight on supply chain.



PHILIP SKINNER -MD, GuarantCo.

There is no longer a distinction between 'finance' and 'climate finance'. All financial institutions need to have climate considerations embedded in their decision-making processes. Successfully mobilizing climate finance in the country necessitates holistic decision-making within the fiscal domain and the creation of a conducive environment for the private sector to generate revenue and attract additional international investments.

MAHEEN RAHMAN

-CEO, InfraZamin

The risk averseness of the financial sector towards lending to private projects is a given considering the historical risk of credit default, but we need to ask ourselves, is that the reason to stop?





SECTION-III

Actions for Corporates and Businesses





Engagement in public-private partnerships for green development will increase the environmental sustainability and ensure long-term profit for the corporate sector.

Research and development alongside capacity building is a cost intensive task. Chamber of commerce can act as resource pool for financing R&D and capacity building to support green transition.



Public-Private Partnerships for Green Development

Collaborating with governments and other organizations in sustainability projects is crucial for achieving long-term environmental goals. This collaboration can take various forms, such as working on renewable energy initiatives, smart city development, or constructing sustainable infrastructure.

The government can play a key role in facilitating these efforts by providing incentives to businesses and industries. These incentives can encourage them to transform their production processes to be more eco-friendly and sustainable.

Additionally, sharing expertise, resources, and technology among businesses and government entities is essential for creating impactful and successful sustainability projects.

In this context, the role of chambers of commerce is imperative. They act as a nexus, pooling resources and offering a joint platform for Public-Private Partnerships (PPPs). These partnerships leverage the strengths of both the public and private sectors, leading to more effective and wide-reaching sustainability initiatives.

Sustainable Supply Chain Management



A lot of carbon projects are run at provincial level, but final regulatory authority is at state Miscommunications level. may occur between the state provincial authorities and which is a disincentive for the investors. Clarity and consistency over a long period of time is needed to attract foreign investment.

Ensuring sustainability within supply chains is a critical aspect of modern business practices. This involves not only scrutinizing one's own operations but also ensuring that suppliers adhere to stringent environmental and social standards.

By holding suppliers accountable, companies can reduce their environmental impact and foster social responsibility across the entire supply chain. Furthermore, implementing traceability and transparency is essential. This means having systems in place to monitor and report on various sustainability metrics within the supply chain.

Such measures allow businesses to track the origin of their materials and ensure that every step in the process aligns with their sustainability goals. This level of oversight and reporting not only enhances operational efficiency but also builds trust among consumers and stakeholders who are increasingly concerned about the environmental and social implications of their purchases.



Invest in Green Technologies and Renewable Energy

For businesses and corporates looking to enhance their environmental sustainability, a key recommendation is to allocate substantial resources towards research and development in green technologies. Investing in such technologies is not only beneficial for the environment but can also lead to long-term cost savings and innovation. Additionally, these entities should prioritize transitioning their operations to renewable energy sources. This shift from fossil fuels to renewables, such as solar, wind, or hydroelectric power, is vital in reducing carbon footprints and mitigating the impacts of climate change.

By embracing renewable energy, businesses not only contribute to a healthier planet but also align themselves with the growing global movement towards sustainable energy solutions. This transition can also enhance their brand image, appeal to environmentally conscious consumers, and potentially lead to new market opportunities.

Moreover, the chambers of commerce across the country can be mobilized to advocate for the power wheeling reforms and power market liberalization. This will give the corporate sector more independence so that they can purchase reliable and clean electricity.

Stakeholder Engagement and Transparency

For businesses and corporations aiming to strengthen their commitment to sustainability, regular engagement with stakeholders is paramount. This includes open dialogues with customers, employees, and investors about the company's sustainability goals and the progress made towards them.

Such engagement not only fosters a culture of transparency and accountability but also allows for valuable feedback and ideas, potentially leading to more effective and innovative sustainability practices.

Moreover, maintaining transparency in

sustainability reporting is crucial. Businesses should adhere to international standards and frameworks, ensuring that their reports are comprehensive, accurate, and accessible to all stakeholders. This level of transparency not only reinforces the company's commitment to ethical practices but also builds trust and credibility in the market.

By openly communicating their sustainability journey and aligning their reporting with globally recognized standards, companies can demonstrate their dedication to making a positive environmental and social impact.

Employee Education and Capacity Building

To foster a culture of sustainability within an organization, it is essential for businesses and corporations to provide employees with the necessary their training and resources. This approach helps in building awareness and understanding of sustainability practices at all levels of the organization. Such training can include information on environmental impacts, resource conservation, and sustainable work practices. Equally important is encouraging employee participation in sustainability initiatives and

decision-making processes. When employees are actively involved and have a say in sustainability efforts, they are more likely to be engaged and committed to the cause.

This can lead to more innovative ideas and solutions, as employees bring diverse perspectives and experiences to the table. Moreover, involving employees in these processes foster a sense of ownership and responsibility towards the organization's sustainability goals, thereby strengthening the overall effectiveness of these initiatives.



Policy Advocacy and Leadership

Businesses and corporations play a crucial role in advocating for sustainability and can significantly influence environmental policies at local, national, and global levels. By actively supporting and lobbying for policies that promote green practices, companies can help shape a more sustainable future.

This includes backing legislation that encourages renewable energy, supports emission reductions, and fosters sustainable development. Additionally, demonstrating leadership in sustainability is vital. Companies should aim to set an example for others in their industry by implementing innovative and effective sustainability strategies. This leadership role not only showcases the company's commitment to environmental stewardship but also inspires and motivates other businesses to adopt similar practices.

By leading the way, these companies can create a ripple effect, encouraging a broader shift towards sustainability across various industries. This dual approach of advocacy and leadership exemplifies a proactive and responsible corporate ethos, contributing significantly to global sustainability efforts.

Adopt Environmental, Social, and Governance (ESG) Criteria





HARUN BINGOL

-Director Technology Dawlance

Rising temperatures, extreme weather events and loss of biodiversity are the signs that earth's delicate balance is under threat. We are at a critical juncture where action is no longer an option but an imperative. Every step we take today should contribute to a better future.

DR. ABID

-Executive Director, Sustainable Development Policy Institute (SDPI)

The challenge is coordination and synchronization of policies and practices. Coordination at the provincial level is crucial. Positive things may happen in silos, but integration and coordination are needed. Coordination challenges include different departments and ministries at provincial and federal levels.

Corporate Social Responsibility (CSR) Initiatives

In today's rapidly evolving corporate landscape, businesses are increasingly recognizing the importance of incorporating socially and environmentally responsible practices into their operational strategies.

By dedicating resources to CSR, companies can demonstrate their dedication to creating a positive impact beyond their immediate business interests. To this end, it is highly recommended that businesses actively engage in projects that yield tangible benefits for both the environment and society. This can be achieved through initiatives focused on community development, educational programs, and health-related endeavors. Such engagement not only fosters a positive public image but also contributes to the creation of sustainable communities.





MARVIMAZHAR

When it comes to building climate resilience among communities, we don't invest in ideologies, we invest in pragmatics of how we can fix things now and that is the problem.

Promote Investment in Carbon Markets

In the context of growing environmental concerns, businesses and corporations are advised to take proactive steps in mitigating their carbon footprint. A key action in this regard is to participate in carbon offsetting initiatives. This can be done by investing in projects that actively reduce or sequester carbon emissions, such as reforestation efforts or the development of renewable energy sources. Such investments not only contribute to the global fight against climate change but also position the company as a responsible and forward-thinking entity.

BILL WINTERS

-Global CEO, Standard Chartered Bank Ltd.

Net Zero shouldn't just be seen as a burden or merely an exercise in risk avoidance. It's fundamentally a question of prosperity. Our research shows that without sufficient sustainable investment and climate adaptation, populations in high growth, developing countries could be \$80tr poorer by 2060.



Adapt to the Carbon Border Adjustment Mechanism (CBAM)

To align with the Carbon Border Adjustment Mechanism (CBAM), businesses and corporations are advised to adjust their business practices with a keen focus on reducing carbon emissions in their production processes.

This necessitates a comprehensive review of current operational methodologies, followed by the implementation of changes that decrease the carbon intensity of their output. Embracing energy-efficient technologies, optimizing supply chains for reduced emissions, and transitioning to cleaner energy sources are pivotal steps in this transformation.

Adopting these strategies will enable corporations to meet regulatory standards while positioning themselves as industry frontrunners in sustainability and innovation.

ANNEXURE 1 Climate Change: A threat to economic security

F Energy Insecurity	X Food Insecurity	Infrastructure Loss	Health & Livelihood Impacts	
Increased energy demand due to intense heatwaves.	Decrease in crop productivity due to increased temperatures.	Destruction of residential/com mercial buildings, roads, etc.	Deaths and Injuries driven by climate induced disasters.	
Energy infrastructure loss and disrupted supply chains in wake of recent floods.	Adverse impacts on availability of usable water	Loss of critical infrastructure (Health, education, etc.)	Climate induced diseases.	
Adverse impacts on hydropower generation (mainly in gb)	Increase in food prices undermining national stability.	Degradation of water bodies and resulting impacts	Loss of livestock and agriculture activities.	
		Pakistan Clin	nate Conference Report 2023	

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ANNEXURE 2 Pakistan Climate Mitigation and Adaptation Plans

Sector ↓	Action 🗸	Emission V Reduction Potential
Energy	 IGCEP and ARE Policy defining transition to 60% renewable energy by 2030. Shelving two coal power plants under the NDCs 10,000 MW fast track solar initiative by GoP Competitive bidding for renewable energy by NEPRA and CPPA-G 30% share in sales of electric vehicles by 2030 under NDCs NEECA strategic plan 2023 for energy efficiency improvements. 	60% shift to clean energy is expected to reduce emissions by 22Mt, shelving of coal plants by 1.7 Mt, electric vehicle transition by 24 Mt, and NEECA strategic plan by 6.4 Mt.
Agriculture and Forestation	 Ten Billion Tsunami Tree Project (TBTTP) Billion Tree Afforestation Project (BTAP). Eco-system Restoration Initiative (2019-2030) for restoring 30% degraded forest, 5% degraded cropland, 6% grassland, and 10% degraded wetland. Protected Areas Initiative (2020-23) to expand protected areas cover from 12% - 15% by 2023 & notifying 15 new national parks. Miyawaki Forests initiative under which 126 urban forests projects are being implemented across the country. Recharge Pakistan initiative for CC resilience through Ecosystem based adaptation for integrated flood risk management. Transforming the Indus Basin with Climate Resilient Agriculture and Water Management (2019-2026). 	TBTTP will sequester 148.7 Mt CO2 in next 10 years. With full implementation, TBTTP and BTAP will sequester around 500 Mt CO2 by 2040.
Industrial Sector	 Green Stimulus Program during COVID19 Switch to zigzag technology for brick kilns. Green Building codes updated by NEECA. MoE (Petroleum division)'s initiative for transitioning to Euro 5 fuel. Mandatory Energy audits of large industries. Solar tubewell initiative. Interventions from MoCC to promote bottom-up actions by private sector for industrial decarbonization. Measures for adoption of clean technologies and implementation of eco-standards 	Undefined targets
Waste Management	 Policy provisions under Pakistan's Hazardous Waste Management policy. Punjab Smog policy placing a ban on open burning of rice stubble and solid waste. Clean Green Pakistan Index 2019 aimed at strengthening municipal services. Policy reforms defined under the updated NDCs including women participation in waste management entities, access of finance for waste management, pilot waste management schemes, etc. Adopting a circular economy approach 	Undefined targets

ANNEXURE 3 Pledges at COP28



Agriculture & Food Systems in NDCs

- Integrate agri-food systems into NDCs and national plans.
- Promote resilience and emissions reduction through scaled financing.



Health in Climate Policy

- Include health considerations in climate policy processes.
- Integrate into NDCs, national strategies, and adaptation plans.



Renewable Deployment & Energy Efficiency

- Triple global renewables capacity by 2030.
- Double global energy efficiency rate by 2030 through domestic action.



Financial Support for Adaptation

- Enhance financial support for climate adaptation and resilience.
- Invest in design, piloting, and scaling of climate-sensitive approaches.

Cooling Emissions

Reduce cooling-related emissions

Address building codes, energy

Reduction

by 68% by 2050.

procurement.

standards, and public



Female Leadership for Gender Equality

- Build on female leadership for gender equality.
- Support transformative impacts in adaptation, mitigation, and finance



Recognition of Hydrogen Certification

• Establish mutual recognition of certification for renewable and low-carbon hydrogen.



Cooperation with Subnational Governments

- Integrate agri-food systems into NDCs and national plans.
- Promote resilience and emissions reduction through scaled financing.



Biodiversity in Climate Action

- Incorporate biodiversity in climate action plans.
- Scale finance for nature and encourage interoperability in data.



Greening the Global Economy

- Bolster investment to green the global economy.
- Support emerging economies with concessional, private finance, and effective MDBs





ANNEXURE 4 Climate Journey of Selected OICCI Members



Pakistan experienced torrential rains in 2022, resulting in riverine, urban, and flash flooding. The results of the floods were devastating, causing around one-third of the country to be submerged.

Chevron Pakistan played a crucial role in providing relief to the affected communities in Sindh and Baluchistan by starting a flood rehabilitation housing project to build 175 new, sturdily constructed houses for the villagers who lost their homes.

In the second phase, Chevron, in collaboration with the i-Care Foundation in Pakistan, installed solar panels on the houses constructed under Chevron Pakistan's flood rehabilitation housing project in Sindh. Chevron is committed to supporting the communities where we operate.



Aligned with the visionary ethos of our parent company Arcelik, Dawlance is dedicated to fostering sustainable living in every household. Our philosophy of 'Progress Today, Preserve Tomorrow,' permeates every aspect of our operations, reflecting a deep commitment to consumers and the environment. Our sustainability efforts focus on three pillars: Plantation, Recycling, responsible consumption, and youth sponsorship.

Pioneering sustainable practices define Dawlance's product development, emphasizing eco-friendly technologies that reduce energy consumption and promote environmentally conscious usage. Beyond product design, we undertake impactful initiatives. During the Covid-19 pandemic, Dawlance's commitment to societal well-being expanded, with donations of appliances to The Indus Hospital and distribution of ventilators to major hospitals in Pakistan.

Furthermore, we engage in tree plantation drives, support local communities through economic opportunities, provide safe drinking water through our 'Bondh-e-Shams Oasis Box' initiative, and address food scarcity by partnering with the Robinhood Army. These initiatives reflect Dawlance's enduring dedication to building a better, sustainable future for generations to come.



As part of the Private Infrastructure Development Group (PIDG), InfraZamin Pakistan is aligned with PIDG's strategic vision, with a particular emphasis on climate action, nature preservation, and sustainable development. We ensure climate resilience in infrastructure projects through rigorous evaluation against Environmental, Social, and Governance (ESG) criteria. We prioritize the integration of climate considerations from project inception to effectively mitigate risks and maximize positive outcomes.

In 2023, InfraZamin Pakistan issued a 100% guarantee for "Pakistan and South Asia's Inaugural Gender Bond," directing proceeds to both gender-focused initiatives and the rehabilitation of flood-affected homes in Pakistan. This initiative underscores our dedication to simultaneously addressing both social and environmental challenges.

Furthermore, our strategy not only safeguards against climate risks but also propels Pakistan towards a low-carbon economy. This contribution is significant in the global endeavor to combat climate change. InfraZamin Pakistan's unwavering commitment to climate-smart infrastructure is pivotal in fostering a sustainable future, wherein economic growth and environmental stewardship go hand in hand.





Standard Chartered is committed to the social and economic development of our markets. With a long-standing presence in regions where sustainable finance can wield significant influence, we drive commerce and prosperity through our expertise, supporting the movement of capital to areas that need it most. As global challenges become more acute, we stand alongside the clients and communities we serve, offering products and services that help navigate issues including worsening climate change impacts and inequality within the financial system. Our knowledge across our diverse footprint and the innovative mindset of our teams allows us to create solutions that help to address these challenges and support sustainable growth and resilience. The work we do to accelerate the transition to net zero, enhance economic participation and reshape globalisation is fundamental to our business. These focal points, encapsulated as our Stands, inform our overall strategy, including our approach to sustainable finance, our advocacy efforts on behalf of our markets and engagement with our employees and society at large.

Dedicated to addressing climate change, our goal is to reach net zero carbon emissions in our financing activity by 2050 and in our own operations by 2025. We have made progress in setting interim 2030 targets for the most carbon-intensive and highest-emitting sectors in the Group's portfolio.



Unilever Pakistan drives sustainable change through its brands and operations, leveraging its value chain for positive systemic change.

Committed to Climate Action, it aims for zero emissions by 2030 and Net Zero by 2039, with its current operations already 80% renewable energy powered. Their progress towards a circular economy includes achieving 50% plastic neutrality in 2023, targeting 100% by 2025. Their social enterprise challenge, 2nd Life, fosters innovation through knowledge exchange among startups, students, and corporates for circular solutions.

Responding to the 2022 floods, Unilever Pakistan not only focused on immediate relief but also on long-term resilience, adopting and rehabilitating two villages with sustainable homes and infrastructure. In 2023, with their partners, they advanced their vision of enhancing health, empowering youth with skills, and education for underprivileged communities. They are advocating for better livelihoods through their efforts to promote Living Wage in Pakistan, achieving 58% compliance in their own value chain.



The climate is changing. So are we.

At BASF, we want to live up to our purpose: We create chemistry for a sustainable future. We are only successful if our products, solutions, and technologies add value to society. Therefore, we want to make a positive impact on society and safeguard our planet. To drive the sustainability transformation, we focus on three key topics: Climate change, Circular Economy, and a safe and sustainable portfolio.

The transformation towards a climate-neutral and circular futures requires setting the right priorities and taking action. Many projects are underway to reach our emission and circularity targets and steering our portfolio towards ever more safe and sustainable solutions. BASF is bundling and accelerating its extensive activities to achieve net zero CO2 emissions in 2050 in our "Net Zero Accelerator" project. This will focus on implementing and accelerating projects relating to low-CO2 production technologies, circular economy and renewable energies.





It is our ambition to be a thought and action leader in sustainability. Consequently, we increase the relevance of sustainability in our business decisions. We support our customers in being more sustainable through our solutions and create new business opportunities that reinforce our customer relationships. Conducting our business in a responsible, safe, efficient, and respectful way differentiates us in the market. Providing the product carbon footprint data of our portfolio to our customers is only one example for the transparency we provide about our sustainability performance.



Abbott is working across the globe with key suppliers to sustainably manage its water use and address climate change by reducing carbon emissions and expanding renewable energy. Abbott is committed to reduce the environmental impact of its product packaging and minimize waste in our operations through reuse and recycling programs across the company. Abbott has defined and strictly following a roadmap for 2030 Sustainability Plan that mainly include protecting climate and water, reducing product packaging and waste.



Nestlé Pakistan is accelerating efforts to reduce its carbon footprint, aiming to half emissions by 2030, and achieve Net Zero by 2050. In line with this commitment, Nestlé has invested PKR 2 billion in renewable energy, including a 2.5MW solar power plant at its Kabirwala Factory, and another 2.6MW solar power plant at its Sheikhupura Factory that will collectively reduce 3600 tCO2e emissions annually. Additionally, Nestlé is assisting dairy farmers in transitioning to high-yield cows, having imported over 8,500 of them to date, apart from supporting the installation of 67 solar systems and 21 biogas plants at local farms. To preserve water resources, Nestlé is implementing drip irrigation and smart soil moisture sensors, covering significant acreage in Punjab and Sindh that underscore Nestlé's commitment to advancing regenerative agriculture. Under the Clean Gilgit-Baltistan Project, Nestlé has installed three compressing machines, one each in Gilgit, Hunza and Skardu, and installed 48 benches and waste bins made of recycled plastic at popular tourist spots. In 2023, the company's efforts facilitated waste management of over 2,600 tons of plastic packaging in the region, making a positive environmental impact.



IMC's dedication to sustainability and climate-friendly policies showcases a corporate ethos centered on environmental responsibility and long-term sustainability. The launch of the Corolla Cross HEV, manufactured in Pakistan with record localized content, demonstrates a commitment to eco-conscious transportation solutions. With a substantial investment of US\$100 million, IMC aims to revolutionize the auto industry while reducing carbon emissions by 35%, setting a new standard for sustainable mobility.

Expanding solar capacity by 2.2 MW underscores IMC's commitment to renewable energy and environmental impact reduction. Targeting a renewable energy ratio of over 30% reflects IMC's forward-thinking approach to sustainable operations. By leading the way toward a greener future, IMC not only reshapes the auto industry but also inspires positive change throughout the business community.





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The Overseas Investors Chamber of Commerce & Industry (OICCI) serves as the first port of call for foreign investors in Pakistan. Established in 1860 as the Kurrachi Chamber of Commerce, it is the oldest chamber of South Asia.



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