

AN STOCK EXCHANGE

Monetising Compliance: How PSX Can Turn ESG, IFRS S1/S2 and Shariah-Aligned Sustainable Finance into Pakistan's Next Capital Formation Engine

A flagship strategic report for policymakers, institutional investors and C-suite stakeholders on transforming regulatory compliance into capital market value at the Pakistan Stock Exchange.

STRATEGIC REPORT

SUSTAINABLE FINANCE

SHARIAH-ALIGNED

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From Compliance to Capital
Flow · The Closing Message:
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Competitiveness



This report is structured as a top-tier consulting deliverable for senior policymakers, institutional investors and corporate leaders. Each section balances concise strategic narrative with data-dense visuals, tables and frameworks.

About This Document

This report was prepared by senior practitioners with deep expertise in capital markets, sustainable finance and regulatory strategy. The analysis draws on primary research, regulatory filings and regional market benchmarks to deliver actionable insights for Pakistan's capital market ecosystem.

This report examines how the Pakistan Stock Exchange (PSX) can convert environmental, social and governance (ESG) compliance and the new IFRS S1/S2 sustainability standards into a capital formation engine. It is structured as a top-tier consulting deliverable for senior policymakers, institutional investors and corporate leaders navigating Pakistan's evolving regulatory landscape.

The analysis spans seven sections – from PSX's structural evolution and the new regulatory reality, through sector-level mispricing and product innovation, to a practical implementation roadmap. Each section balances concise strategic narrative with data-dense visuals, tables and frameworks.



This report draws on PSX market data, SECP regulatory filings, IFRS Foundation jurisdictional guidance, the Pakistan Business Council Climate Change Readiness Survey 2024, KPMG ESG Assurance Maturity Index, and regional exchange benchmarks from Malaysia, Indonesia and Thailand.

Data Sources

PSX Market Data

Market cap, returns, sector performance, UIN growth

SECP Regulatory Filings

IFRS S1/S2 mandate, sukuk approvals, ESG guidelines

IFRS Foundation

Jurisdictional guidance, ISSB adoption tracker

PBC Climate Survey 2024

75-company readiness assessment

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7 Sections

From strategic inflection to implementation roadmap

561 Companies

PSX listed companies as of February 2026

PKR 18.28T

Market capitalisation by February 2026

17 Jurisdictions

Early ISSB adopters globally, including Pakistan

Who Should Read This

- **PSX Board and Management:** Strategic direction for sustainable capital market development
- **SECP and SBP Policymakers:** Regulatory design and enforcement priorities
- **C-Suite Executives:** First-mover advantage in ESG compliance and capital access
- **Institutional Investors:** ESG risk pricing and sustainable product opportunities
- **Asset Managers:** Shariah-ESG ETF and green sukuk product development
- **Development Finance Institutions:** Climate finance deployment channels

Message from Partner



Faraz Khan MBE
Partner, Sustainadility

"Pakistan's capital market has delivered 249% cumulative USD returns in three years. Yet its greatest opportunity remains unlocked – when ESG compliance becomes a capital formation strategy, everything changes."

Pakistan's capital market performance has been exceptional – the KSE-100 delivered 55% in 2023, 84% in 2024 and 51% in 2025, making it the world's second-best performing frontier market. Yet beneath this remarkable trajectory, a structural gap persists: ESG and sustainability risks remain largely unpriced, and the companies generating these returns are largely unprepared for the disclosure standards now being mandated.

The SECP's mandate for IFRS S1 and S2 adoption marks a turning point that cannot be overstated. Compliance is the floor, not the finish line. The real prize is monetisation – turning better disclosure, stronger governance and clearer climate-risk visibility into lower cost of capital, higher investor trust and deeper access to global sustainable finance pools.

The readiness gap is real. Of 561 PSX-listed companies, only a fraction have begun structured climate risk disclosure. The Pakistan Business Council's Climate Change Readiness Survey 2024, covering 75 companies, revealed significant gaps in governance frameworks, data infrastructure and strategic integration of sustainability into financial reporting. Closing these gaps is not just a compliance imperative – it is a competitive one.

The convergence of ESG demand, Shariah-aligned finance and proven regional precedent creates a once-in-a-generation opportunity. Malaysia and Indonesia have demonstrated how sustainability frameworks can expand product ranges, attract international capital flows and strengthen market depth. Pakistan now has a rare window to do the same – and this report provides the blueprint.

At Sustainadility, we believe Pakistan possesses every ingredient needed to become a regional leader in sustainable capital markets. This report is our call to action – for PSX, for SECP, for listed companies, for institutional investors and for asset managers. The question is no longer whether to act. It is how fast.

Executive Summary

PART 1 OF 2 – MARKET CONTEXT, REGULATORY MANDATE & THE MISPRICING OPPORTUNITY

Pakistan's capital market has delivered 249% cumulative USD returns over three years – yet its most profitable sectors carry the heaviest unpriced ESG risks. The window to monetise compliance is open now.

PKR 19.7T

Market Capitalisation 2025
Up 117% from PKR 9.06T in
FY2023

84%

KSE-100 return in 2024, 249%
cumulative USD return over 3 years

561

PSX listed companies
464,000 unique investor
accounts (UINs)

17

Pakistan is one
Jurisdiction early-adopting ISSB

Finding 1 – The Market is Ready, But Disclosure is Broken

The KSE-100 delivered 55% in 2023, 84% in 2024 and 51% in 2025, making Pakistan the world's second-best performing frontier market. Yet foreign investors recorded net outflows of USD 304 million in FY2025 – a paradox explained by the absence of credible, standardised ESG disclosure. Aggregate KSE-100 profits reached PKR 1.78 trillion (US\$6.3B) in FY2025, a 9% increase, yet the top five sectors – banks, oil & gas, cement, fertiliser and food – account for ~75% of market cap with minimal sustainability disclosure.

Performance Without Transparency

KSE-100 delivered 55% (2023) → 84% (2024) → 51% (2025). Foreign investors still recorded USD 304M net outflows in FY2025. Record returns have not translated into foreign capital inflows – the missing link is disclosure quality.

A Stark Readiness Gap

PBC Climate Survey 2024 (75 companies): 90% recognise climate risk, but only 33% have set net-zero targets, only 5% include climate in business continuity plans, and 15% use no metrics at all to measure climate risk.

The Regulatory Forcing Function

SECP mandated IFRS S1/S2 from July 2025. Phased rollout: top 50 companies by FY2026, next 50 by FY2027, all remaining PAEs by FY2028. Companies that invest in governance and data infrastructure now gain first-mover advantage – laggards face investor exit and higher cost of capital.

Finding 2 – The Mispricing Matrix: High Returns, Hidden Risks

Pakistan's most profitable sectors carry the heaviest unpriced ESG risks. Without credible disclosure, investors cannot distinguish firms managing these risks from those that are not – creating both a valuation distortion and a capital allocation opportunity for early movers.

Commercial Banks • 103.8% return

Financed emissions concentrated in agriculture, textiles and energy. Climate stress testing only recently mandatory. Valuations modest despite stellar profits – climate credit risk is not priced.

Cement • 88.1% return

8.11% of Pakistan's national carbon emissions. EU Carbon Border Adjustment Mechanism (CBAM) exposure from 2026–2030. Low P/E of 6–8× may discount regulatory risk; carbon liabilities remain unquantified.

Fertilizer • 68.5% return

Natural gas feedstock; methane and nitrous oxide emissions; subsidy reform risk. High dividend yields mask the transition risk from gas subsidy removal.

Power Generation • 62% return

46% fossil fuel generation; PKR 2T+ circular debt; physical climate risk to hydro assets. High yields are attractive but receivables risk and energy transition are underweighted.

Textiles • 27% return

162% freshwater extraction intensity; 60% of merchandise exports; EU CBAM expanding to textiles. Lagging returns reflect macro headwinds – ESG transition risk remains unpriced.

IFRS S1/S2 will force this reckoning. Companies that disclose credibly will attract capital at lower cost; those that delay will face stranded-asset risk, investor exit and export market penalties under EU CBAM.

Executive Summary

PART2 OF 2-THE CAPITAL FORMATION OPPORTUNITY, REGIONAL EVIDENCE & THE ROADMAP

The question facing listed companies is no longer 'must we comply?' – it is 'how quickly can we monetise compliance and capture the capital that follows?'

Finding 3 – Compliance is a Capital Formation Engine, Not a Cost

A meta-analysis by the NYU Stern Center for Sustainable Business covering more than 1,000 studies (2015-2020) found that 76% of ESG investments yield positive or neutral financial results. Companies with strong ESG practices raise financing approximately 10% cheaper (RBC/McKinsey), and high ESG scorers generate 2.6× greater shareholder returns. Critically, 85% of institutional investors globally consider ESG factors in investment decisions – and 88% of UK institutional investors believe ESG factors are more important than financial metrics for long-term attractiveness.

76%

ESG investments

Yielding positive or neutral financial results (NYU Stern, 1,000+ studies)

2.6×

Greater shareholder returns
For high ESG scorers vs. peers

10%

Lower cost of capital

For companies with strong ESG practices (RBC/McKinsey)

\$348B

Pakistan climate finance need
Estimated by 2030

Pakistan's Proof Points

Inaugural sovereign green sukuk (PKR 30B, May 2025) oversubscribed 10×. SECP sukuk approvals grew 42% YoY to PKR 158B in 2025. Islamic banking assets = PKR 12.3T (US\$44B) – a natural, ready ESG-aligned capital pool seeking Shariah-compliant sustainable instruments.

The Product Pipeline

PSX must build the channels to capture \$348B in climate finance demand: IFRS S1/S2-based ESG Leaders Index with Shariah screens; Shariah-ESG ETF (target PKR 100M daily turnover year 1); annual sovereign green sukuk programme; SDG and gender bonds; ESG rating system (AAA-BBB tiers).

The Virtuous Cycle

Compliance → Confidence → Capital → Competitiveness. Companies that invest early in governance, data infrastructure and emissions measurement gain first-mover advantages in investor relations, lender engagement and export competitiveness. Those that delay will scramble as investors demand credible disclosures.

Finding 4 – Regional Peers Show the Path; Pakistan Can Leapfrog

Malaysia, Indonesia and Thailand – all comparable emerging markets with Islamic finance traditions – have successfully integrated ESG with Shariah principles at scale. Their experience demonstrates that the convergence of Islamic finance and ESG is not a constraint but Pakistan's unique competitive advantage.

Malaysia

Islamic Capital Market = 63% of total market cap (RM2,634B). 822 Shariah-compliant listed companies. SRI Sukuk issuance RM27.6B in 2023. F4GBM Index anchors ESG product ecosystem. 90% grant for external review costs accelerates adoption.

Indonesia

USD 6B in sovereign green sukuk issued since 2018 – world's largest programme. ESG index AUM of USD 470M. 35,397 retail sukuk investors in 2022 alone. Five ESG indices on IDX. Retail sukuk democratises sustainable finance access.

Thailand

265 ESG-rated companies represent 70% of total market capitalisation. Thai ESG funds AUM of THB 76B (USD 2.38B). SET ESG Ratings serve as the official benchmark. ESG ratings directly drive institutional fund flows.

Pakistan – The Opportunity

PKR 19.7T market cap. 500,000+ retail investors. 10× oversubscription of inaugural green sukuk proves latent demand. Pakistan can leapfrog by adopting ASEAN taxonomy, ISSB standards and Shariah-ESG index methodology rather than building from scratch.

The 36-Month Roadmap

01

0–90 Days: Immediate Mobilisation

Sign MoUs with IFRS Foundation, UN SSE, SECP, ICAP and ACCA. Launch ESG & IFRS S1/S2 Readiness Programme. Host 5+ webinars. Collect baseline self-assessments from all 561 listed companies. Segment companies into readiness cohorts.

02

3–12 Months: Deepening Capacity

Deliver 8 training modules for 1,000+ participants. Pilot Readiness Factory with 30 volunteer companies. Publish quarterly PSX ESG Readiness Index. Structure 3+ new green sukuk or SDG bond issuances. Offer listing fee discounts for leader-status companies.

03

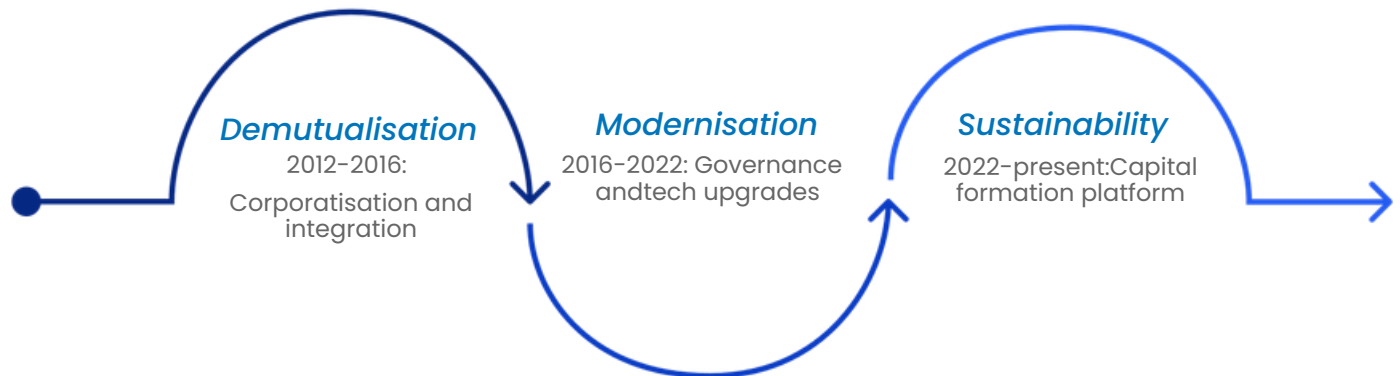
12–36 Months: Embedding & Monetising

Mandate IFRS S1/S2 for all PAEs by 2028. Train 5,000+ professionals. Launch PSX ESG Leaders Index and Shariah-ESG ETF by year 2. Target PKR 500B cumulative sustainable issuance by 2028.

- Five Strategic Imperatives: (1) Compliance is table stakes – monetisation is the prize. (2) PSX is at a strategic inflection point. (3) Shariah and ESG are natural allies – Pakistan's unique advantage. (4) Sector mispricing creates a first-mover capital opportunity. (5) Regional peers show the path Pakistan can replicate and leapfrog.

Section 1: PSX at a Strategic Inflection Point

FROM TRADING VENUE TO SUSTAINABLE CAPITAL FORMATION PLATFORM



PSX's transformation began with the Stock Exchanges (Corporatisation, Demutualisation and Integration) Act 2012, which separated ownership from trading rights and mandated the merger of the Karachi, Lahore and Islamabad stock exchanges, completed in January 2016. In December 2016, a consortium of Chinese exchanges acquired a 40% strategic stake, connecting PSX to China's capital market infrastructure and signalling its ambition as a regional hub.

40%

Chinese consortium strategic stake
Acquired December 2016

PKR 19.7T

Up from PKR 9.06T in FY2023

561

Listed companies As of February 2026

500K+

Unique investor accounts UINs
as of FY 2025

From Broker-Controlled to Market-Shaping



The Next Phase: Sustainability as Strategy

Disclosure Quality

IFRS S1/S2 mandatory for large listed companies from July 2025; phased rollout to all Public Interest Entities (PAEs) by FY2028. Only 33% of companies have set net-zero targets - the compliance gap is the opportunity.

Product Innovation

IFRS S1/S2-based ESG Leaders Index with Shariah screens; Shariah-ESG ETF targeting PKR 100M daily turnover; annual sovereign green sukuk programme; SDG and gender bonds in pipeline.

Capital Formation

Pakistan's \$348B climate finance need by 2030 creates structural demand. The inaugural sovereign green sukuk (PKR 30B) was oversubscribed 10x - proving that capital is ready to flow when credible instruments exist.

PSX Sustainability & ESG Task Force

PSX has moved decisively from a trading venue to a sustainability-oriented capital market institution. Since 2021, the PSX ESG Task Force—comprising KPMG, Engro, Fauji Fertiliser, ICI Pakistan, Bank of Punjab, ARL, Toyota Indus Motor, Bank Alfalah and others—has driven policy, product innovation and disclosure reform across Pakistan's most influential listed companies.

TIMELINE 2: PSX SUSTAINABILITY MILESTONES – 2021 TO 2025

- 1 **2021:** ESG Task Force established – leading corporates, financial institutions and governance bodies convened to steer sustainability policy
- 2 **2022:** PSX joined the UN Sustainable Stock Exchanges (UN SSE) initiative – signalling commitment to global disclosure standards
- 3 **2023:** Released first PSX ESG Report – baseline transparency established for the market
- 4 **2024:** Issued ESG Reporting Primer – practical guidance for all 561 listed companies on sustainability disclosure
- 5 **2024:** Partnered with London Stock Exchange Group – ESG data tools deployed for listed companies
- 6 **May 2025:** Facilitated Pakistan's inaugural sovereign domestic green sukuk – PKR 30 billion raised, oversubscribed 10x
- 7 **2025:** Mandatory gender pay gap disclosure – listed companies required to disclose gender pay gap data

Four Institutional Achievements



ISO 27001: 2022 Certified

Achieved Information Security Management System certification, reinforcing digital infrastructure credibility for global investors and international counterparties.



First Sovereign Green Sukuk

Facilitated Pakistan's inaugural sovereign domestic green sukuk in May 2025, raising PKR 30 billion for climate-resilient infrastructure – oversubscribed 10x by domestic institutional investors.



Gender Pay Gap Disclosure

Issued mandatory notice requiring all listed companies to disclose gender pay gap data – aligning PSX with global diversity and inclusion best practices and SECP governance guidelines.



SDG-Linked Awards

Integrated SDG-linked disclosure criteria into the Top 25 Companies Awards, creating market incentives for companies to embed sustainability into core business strategy.

Market Performance, Investor Base & Capital Flows TheKSE-100d

TheKSE-100delivered 55% in 2023, 84% in 2024 and 51% in 2025 – making Pakistan the world's second-best performing frontier market. Over three years, the index provided a cumulative US dollar gain of 249%, far outpacing domestic asset classes. Yet despite record returns, foreign investors recorded net outflows of USD 304 million in FY2025 – a structural paradox that credible ESG disclosure is uniquely positioned to resolve.

249%

Cumulative USD return on KSE-100 over 3 years (2023–2025)

PKR 19.7T

Up from PKR 9.06T in FY2023

PKR 39B

Average daily traded value in FY2025

13.3%

Market-cap-to-GDP ratio in FY2025

CHART 1: KSE-100 ANNUAL RETURNS

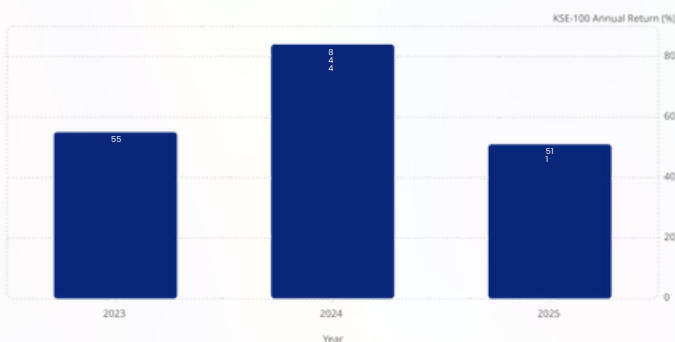


CHART 2: MARKET CAPITALISATION GROWTH (PKR TRILLION)



PKR 1.78T

Aggregate KSE-100 profits in FY2025 (US\$6.3B), a 9% increase year-on-year. Top 5 sectors account for ~75% of total market cap.

CHART 3: UIN GROWTH TRAJECTORY – UNIQUE INVESTOR NUMBERS



USD 304M

Foreign investor net outflows in FY2025 despite record domestic returns. The missing link is credible, standardised ESG disclosure.

PKR 4T

Estimated annual green sukuk market potential (government advisers). Latent demand proven by 10x oversubscription of inaugural sovereign sukuk.



Foreign investors recorded net outflows of USD 304 million in FY2025 despite record domestic returns. High-quality sustainability disclosure is the key lever to reverse this trend – building trust, comparability and long-term capital commitment from international investors.

Sector-Wise Market Capitalisation: PSX Structure

PSX's market capitalisation is heavily concentrated. The top five sectors – commercial banks, oil & gas exploration, cement, fertiliser and food & personal care – account for approximately three-quarters of total market value. Banks alone represent PKR 4.77 trillion, or 28% of the total. This concentration amplifies the systemic importance of ESG disclosure: if the largest sectors do not disclose credibly, the market cannot price risk accurately.

CHART 4: MARKET CAP BY SECTOR – PKR BILLION

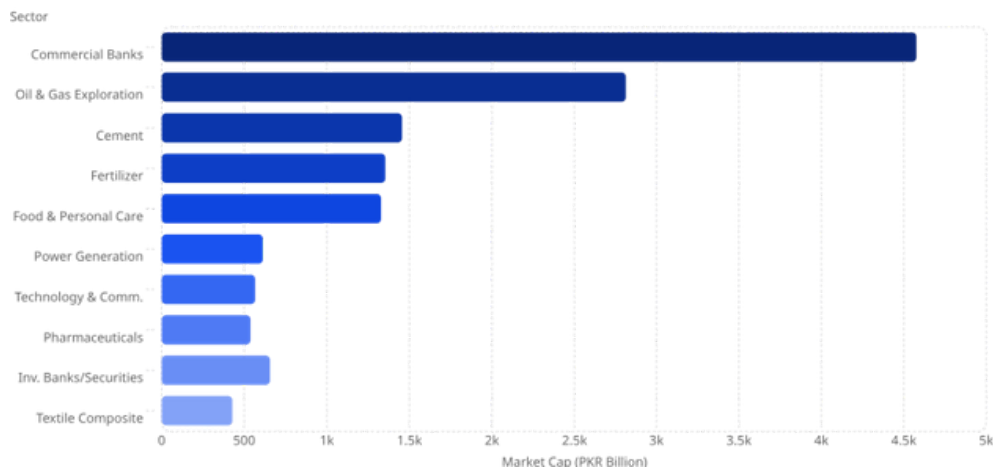
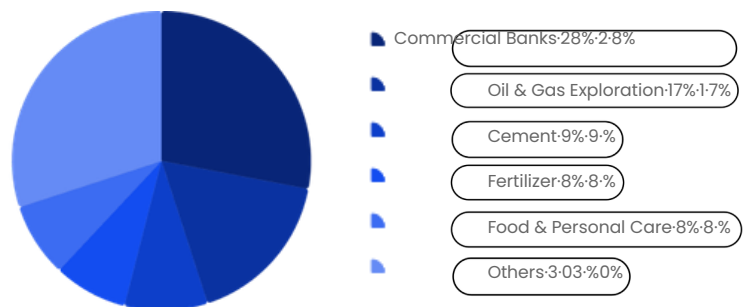


CHART 5: SECTOR SHARE OF TOTAL MARKET CAP (%)

28%
Commercial banks' share of total PSX market cap
PKR 4.77T

~75%
Share of market cap held by top 5 sectors

PKR 19.7T
Total PSX market capitalisation as of FY2025



Concentration Risk & ESG Implications

Systemic ESG Risk

Banks, cement and oil & gas – the three largest sectors by market cap – carry the heaviest unpriced ESG risks. Banks hold financed emissions; cement contributes 8.11% of national carbon emissions; oil & gas faces stranded-asset risk.

The Disclosure Dividend

Sectors that invest in credible IFRS S1/S2 disclosure will attract institutional capital, achieve valuation re-ratings and access green sukuk and SDG bond markets currently unavailable to non-disclosing companies.

Undercapitalised Sectors

Textile spinning, glass & ceramics, cable & electrical goods and synthetic fibres each have market caps below PKR 100 billion. Lack of research coverage and disclosure keeps investors away – ESG disclosure can unlock analyst attention and capital.



The top five sectors account for ~75% of market cap yet carry the highest unpriced ESG risks. IFRS S1/S2 adoption will force disclosure – and repricing. First movers gain; laggards face stranded-asset risk and investor exit.

Top 10 Sectors: Market Performance FY2025

CHART 6: MARKET CAP BY SECTOR, JUN-25 - PKR BILLION

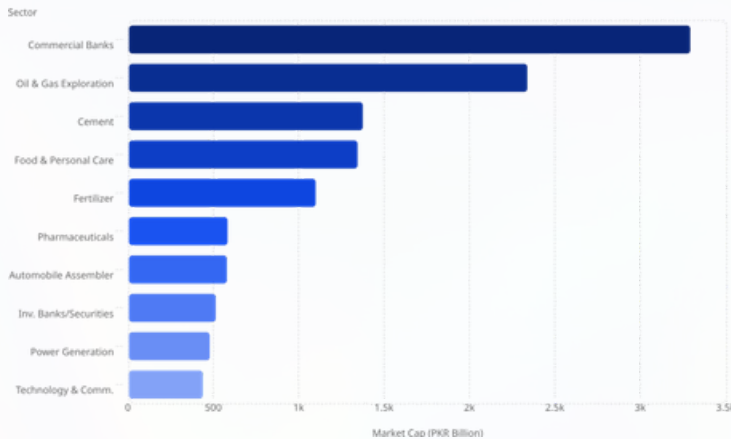
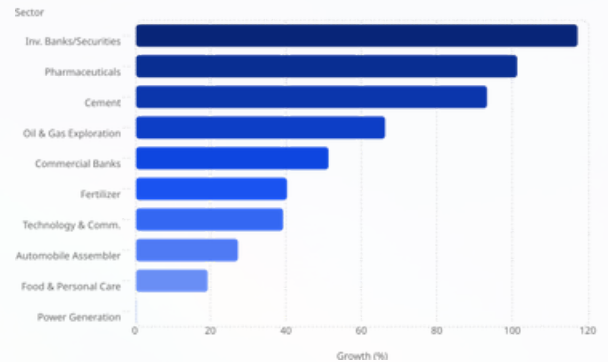


CHART 7: YOY GROWTH BY SECTOR (%)



117%

Inv. Banks/Securities Growth

Highest YoY growth among top 10 sectors

PKR 3.3T

Commercial Banks Market Cap

Largest sector – 22% of total PSX

93%

Cement Sector Growth

Despite high ESG transition risk

0.1%

Power Generation Growth

Flat-regulatory uncertainty weighing on valuations

High Returns ≠ Low Risk

Inv.Banks/Securities and Cement delivered 117% and 93% growth respectively – yet both carry significant unpriced ESG risks. IFRS S1/S2 disclosure will force repricing.

Power Generation: A Warning Signal

Near-zero growth in Pakistan's largest

infrastructure sector signals that regulatory and climate uncertainty is already suppressing valuations – a preview of what awaits non-disclosing sectors.

Embedding Sustainability: Green Sukuk and Islamic Indices

PKR 30B

Inaugural Sovereign Green Sukuk

Raised May 2025 for climate-resilient infrastructure

14%

Sukuk Share of Domestic Debt

Up from near-zero before the green sukuk issuance

10x

Oversubscribed

Domestic institutional investor demand far exceeded supply

3

Shariah-Compliant Indices

KMI-30, PSX-KMI All Share and MZNP Index



The May 2025 sovereign green sukuk raised PKR 30 billion (~US\$107 million) for climate-resilient infrastructure. The three-year Ijarah-based instrument was oversubscribed 10x and increased the share of sukuk in domestic debt to 14%.

Structure

Three-year Ijarah-based instrument - Shariah-compliant and aligned with ICMA Green Bond Principles

Use of Proceeds

Climate-resilient infrastructure including flood defences, renewable energy and sustainable urban development

Market Signal

10x oversubscription proves domestic capital is ready to flow into credible sustainable instruments - the supply gap is the opportunity

Islamic Indices on PSX



KMI-30 Index

Top 30 Shariah-compliant companies by float-adjusted market cap - the benchmark for Islamic equity investment in Pakistan

PSX-KMI All Share

All Shariah-compliant companies on PSX, developed with Meezan Bank - broadest Islamic equity universe available

MZNP Index

Top 12 companies by average traded value and free-float market cap - the most liquid Shariah-compliant index

The Strategic Opportunity: Merging Shariah and ESG

Dual Screening Advantage

Shariah screens already exclude alcohol, tobacco, weapons and highly leveraged companies - overlapping significantly with ESG exclusion criteria. A combined Shariah-ESG index would attract both Islamic and global ESG investors simultaneously.

Annual Sovereign Green Sukuk Programme

A recurring annual issuance programme - modelled on Indonesia's US\$3B+ annual sovereign green sukuk - would establish Pakistan as the leading Islamic sustainable finance hub in South Asia.

PKR 100M Daily Turnover Target

A Shariah-ESG ETF based on the KMI-30 with IFRS S1/S2 disclosure screens could realistically target PKR 100 million in daily turnover - comparable to the Mahaana Islamic Index ETF's early performance trajectory.

- ✓ The convergence of Shariah compliance and ESG disclosure creates a uniquely Pakistani competitive advantage: instruments that are simultaneously acceptable to Islamic investors globally and to ESG-mandated institutional capital from Europe, the GCC and multilateral development banks.

Section 2: The New Regulatory Reality

IFRS S1/S2, ESG DISCLOSURE AND THE END OF VOLUNTARY SUSTAINABILITY REPORTING

By 2025, the International Sustainability Standards Board (ISSB) had issued IFRS S1 (general requirements for disclosure of sustainability-related financial information) and IFRS S2 (climate-related disclosures). More than 37 jurisdictions representing approximately 60% of global GDP and over 40% of global market capitalisation have decided to adopt or are taking steps toward adopting the ISSB standards. Pakistan is among only 17 early adopters, placing PSX ahead of many peers.

37

Jurisdictions Adopting
Representing ~60% of global GDP

40%

Global MarketCap
Covered by ISSB-adopting jurisdictions

60%

Global GHG Emissions
Covered by adopting jurisdictions

90%

S&P 500 Companies
Already release ESG reports globally

What IFRS S1/S2 Requires

Pakistan's Regulatory Timeline

- 31 Dec 2024: SECP formally mandated IFRS S1/S2 adoption for listed companies
- July 2025: Mandatory for large listed companies (top 50 by market cap)
- FY2026: Top 50 companies must report under IFRS S1/S2
- FY2027: Next 50 companies added to mandatory scope
- FY2028: All remaining Public Interest Entities (PAEs) covered
- Pakistan is among only 17 jurisdictions globally to adopt ISSB standards early

Governance

Board and management oversight of sustainability risks and opportunities

Strategy

How sustainability risks affect business model, strategy and financial planning

Risk Management

Processes for identifying, assessing and managing sustainability risks

Metrics & Targets

Quantitative data on GHG emissions, climate risk exposure and progress against targets

i IFRS S2 requires Scope 1, 2 and 3 GHG emissions disclosure – a significant data infrastructure challenge for most Pakistani listed companies, where only 12% currently measure Scope 3 emissions (PBC Climate Survey 2024).

ATIONS

FRAM

SUSTAINABILITY REPORT

IFRS S1/S2: Requirements & Pakistan's Adoption Timeline

SECP MANDATE · PHASED ROLLOUT 2025–2027 · READINESS GAP ANALYSIS



TIMELINE 1: IFRS S1/S2 PAKISTAN ADOPTION TIMELINE – DEC 2024 TO YEAR 2+

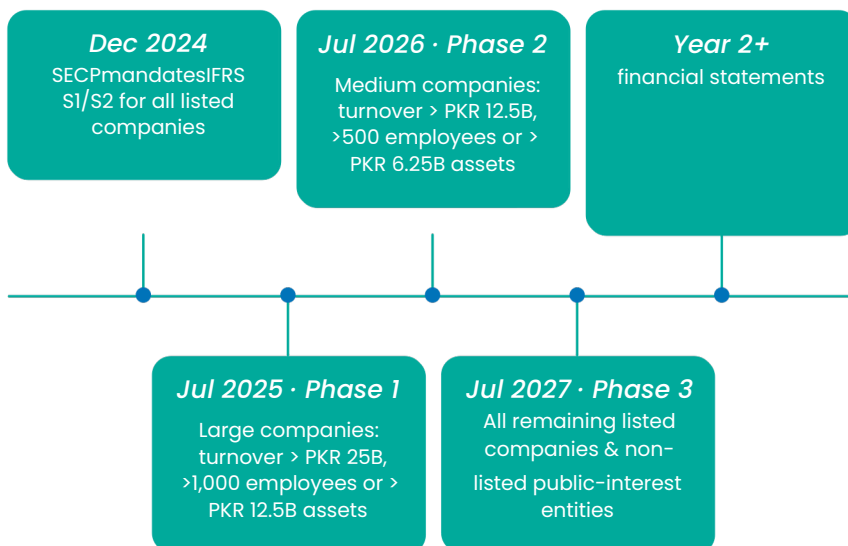
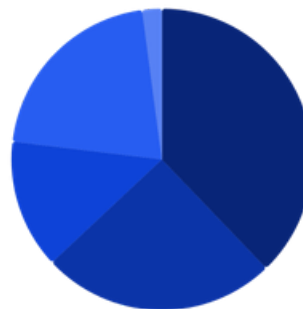
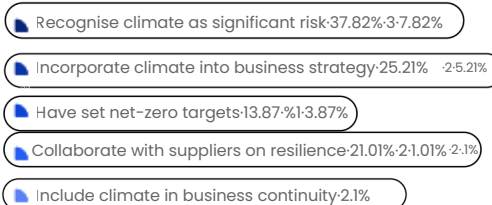


CHART 9: READINESS GAP ANALYSIS – % OF COMPANIES (PBC SURVEY 2024, N=75)

Pakistan is one of only 17 jurisdictions committing to early ISSB adoption – a significant competitive differentiator. But the readiness gap is stark.



✓ Pakistan is one of only 17 jurisdictions committing to early adoption of ISSB standards – a significant competitive differentiator for attracting global ESG capital. Only 12% of companies currently measure Scope 3 emissions – the data infrastructure investment must begin now.

Global ISSB Adoption & Early Preparation is Critical

37+ JURISDICTIONS · 60% OF GLOBAL GDP · PAKISTAN AMONG EARLY ADOPTERS

More than 37 jurisdictions representing approximately 60% of global GDP and over 40% of global market capitalisation have decided to adopt or are taking steps toward adopting the ISSB standards. Jurisdictions including Australia, Bangladesh, Brazil, Canada, Malaysia, Nigeria, Sri Lanka, Turkey and Zambia have set first reporting periods between 2024 and 2026. Pakistan's phased implementation means large listed companies start reporting in FY2026, medium-sized firms in FY2027 and all remaining listed and public-interest companies in FY2028.

37+

40%

Jurisdictions adopting ISSB standards (~60% of global GDP)

Global market cap covered by ISSB-adopting jurisdictions

60%

90%

Global GHG emissions covered by adopting jurisdictions

S&P 500 companies already releasing ESG reports globally

Five Strategic Advantages of Early Preparation



Lower Risk Premium and Cost of Capital

ISSB adoption improves investors' ability to assess risks, reducing the risk premium demanded and lowering borrowing costs. Better-governed Pakistani firms already enjoy lower financing costs per the PCGI study. Early movers gain ~10% lower cost of capital (RBC/McKinsey).



Attracting Foreign Portfolio Investment

Foreign investors recorded net outflows of USD 304 million in FY2025. High-quality sustainability disclosure can reverse this trend by building trust and comparability with international peers.



Meeting Global Supply-Chain Expectations

Over 90% of Pakistani companies recognise climate change impacts, but only one-third have set net-zero targets. Early compliance positions firms to meet EU CBAM and buyer disclosure requirements.



Reducing Climate-Related Risk Exposure

Pakistan ranks as the 7th most climate-affected nation globally. IFRS S2 forces companies to assess both physical and transition risks, developing resilience strategies that reduce potential economic losses.



First-Mover Advantage

Companies adopting ISSB standards ahead of peers can differentiate themselves, enhance valuations, attract ESG-focused investors and issue green or sustainability-linked bonds more easily. High ESG scorers generate 2.6x greater shareholder returns.

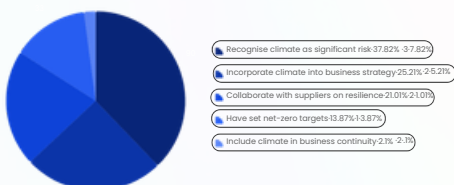
Pakistani Companies' Readiness Gaps: Climate Change Survey 2024

Key Findings



Readiness at a Glance

CHART 9: CLIMATE CHANGE READINESS AT A GLANCE - % OF COMPANIES (PBC SURVEY 2024)



Critical Gaps

Metrics Gap

15% use no metrics; most lack Scope 3 data

Board Oversight

Only 1/3 set net-zero targets; 40%+ can't build financial case

Adaptation

Over half focus on mitigation; physical risk adaptation under-emphasised

Supply Chain Risk

Agricultural Output

36% cite extreme weather as top supply chain challenge

Supplier Collaboration

50% collaborate with suppliers on resilience & disaster management

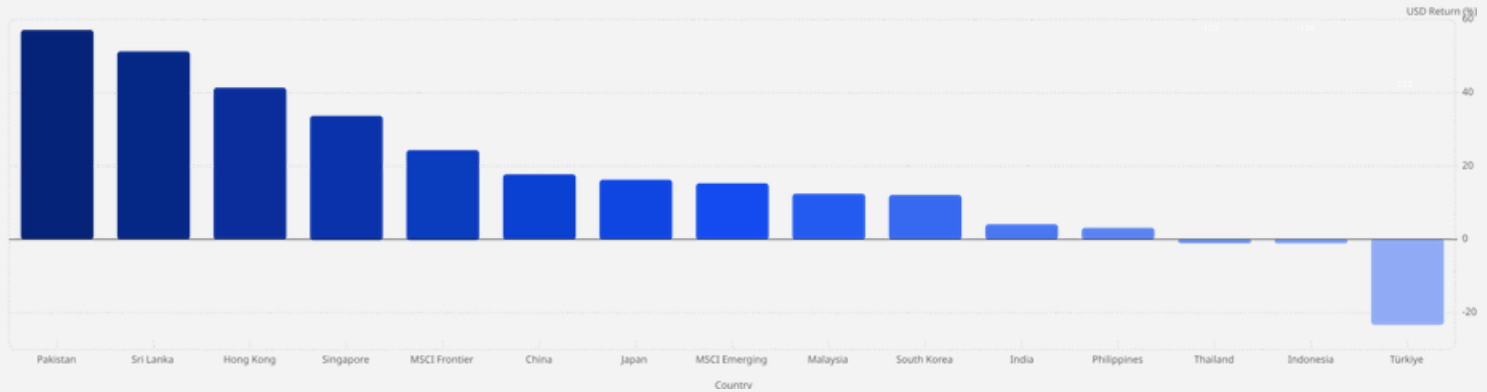
Reporting Frameworks

48% rely on internal or local guidelines - no global standard adopted

Section 3: The Missing Link – Sector-Wise ESG Exposure and Capital-Market Mispricing

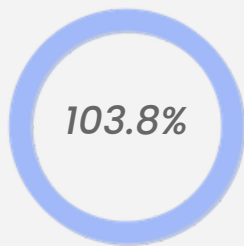
PROFITABILITY VS. SUSTAINABILITY READINESS

CHART 8: PERFORMANCE OF GLOBAL STOCK INDICES IN USD – JULY 2024 TO JUNE 2025

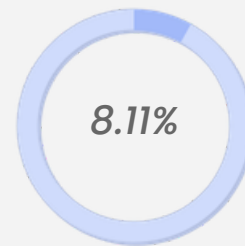


Pakistan's most profitable sectors carry the heaviest unpriced ESG risks. Banks returned 103.8% in 2025 yet hold concentrated climate risk in their loan books. Cement trades at 6–8× P/E despite contributing 8.11% of national carbon emissions. This mispricing creates both risk and opportunity.

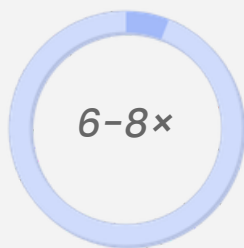
PSX investors currently price securities largely on short-term profitability and dividend yield rather than long-term sustainability readiness. Aggregate profits of KSE-100 companies reached PKR 1.78 trillion (US\$6.3 billion) in FY2025 – a 9% increase over FY2024. Yet the sectors generating the highest profits are often those with the greatest sustainability challenges. Without credible ESG disclosure, investors cannot distinguish firms managing these risks from those that are not.



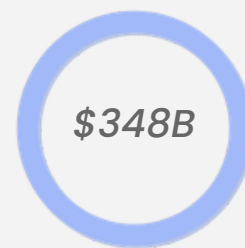
Banking sector total return in 2025 (highest performing sector)



Cement sector share of Pakistan's national carbon emissions



P/E multiple for cement stocks (underpricing climate transition risk)



Pakistan's climate finance gap by 2030

The Mispricing Problem

- High-return sectors are not pricing in ESG/climate transition risks. Investors lack standardised, comparable ESG data to repricing risk. IFRS S1/S2 adoption will force disclosure – and repricing.
- First movers who disclose credibly will attract capital at lower cost. Laggards face stranded-asset risk and investor exit.

The Opportunity

Re-rating Premium

Companies with credible ESG disclosure attract 2.6× greater shareholder returns and 10% lower cost of capital.

New Capital Pools

Greensukuk, SDGbonds and Shariah-ESG ETFs unlock domestic and international capital unavailable to non-disclosing companies.

Export Competitiveness

EU Carbon Border Adjustment Mechanism (CBAM) and global supply chain ESG requirements create commercial imperative for early action.

⚠️ Pakistan is ranked as the most climate-affected country in 2022 by the Germanwatch Climate Risk Index, with 33 million people impacted by floods, 1,700 fatalities and US\$15 billion in damages. Climate change made the heavy monsoon rains 50% more likely.

Sector Returns vs. ESG Risk: The Mispricing Matrix



Commercial Banks

103.8% RETURN · ~8× P/E

Financed emissions concentrated in agriculture, textiles & energy. Climate stress testing only recently mandatory. Valuations modest despite stellar profits – climate credit risk not priced.



Cement

88.1% RETURN · 6–8× P/E

8.11% of national carbon emissions; 60% energy costs; EU CBAM exposure from 2026–2030. Low P/E may discount regulatory risk; carbon liabilities not quantified.



Fertilizer

68.5% RETURN · ~8× P/E

Natural gas feedstock; methane and nitrous oxide emissions; subsidy reform risk. High dividends mask transition risk from gas subsidy removal.



Power Generation

62% RETURN · VARIABLE P/E

46% fossil fuel generation; PKR 2T+ circular debt; physical climate risk to hydro assets. High yields attractive but receivables and transition risk underweighted.



Textiles

27% RETURN · HIGHER P/E

162% freshwater extraction; 60% of merchandise exports; EU CBAM expanding to textiles. Transition risk still unpriced despite lagging returns.



Oil & Gas Exploration

VOLATILE RETURN · 5–7× P/E

Stranded-asset risk; methane leaks; flaring; groundwater contamination. Long-term capex could be stranded; environmental liabilities not fully priced.



These mismatches suggest that early adopters of IFRS S1/S2 and robust ESG reporting could achieve valuation premiums, while laggards may face higher cost of capital and shrinking investor interest.

Sector-Specific ESG and Climate Exposure

Cement

8.11% of national carbon emissions · 60% energy cost exposure · EU CBAM risk from 2026–2030 · Carbon liabilities unquantified

Power Generation

46% fossil fuel generation · PKR 2T+ circular debt · Physical climate risk to hydro assets · Receivables risk underweighted

Oil & Gas

Stranded-asset risk rising · Methane leaks & flaring · Groundwater contamination · Environmental liabilities not fully priced

Textiles

162% freshwater extraction ratio · 60% of merchandise exports · EU CBAM expanding to textiles · Transition risk unpriced

Agriculture & Food

Climate-sensitive supply chains · Drought and flood exposure · Water stress intensifying · 36% cite extreme weather as top challenge

Banks

Financed emissions in agriculture, textiles & energy · Climate stress testing recently mandated · Credit portfolio concentration risk



Pakistan is ranked the most climate-affected country in 2022 (Germanwatch Climate Risk Index) – 33 million impacted by floods, 1,700 fatalities, US\$15 billion in damages. Climate change made heavy monsoon rains 50% more likely.

Sectors Poised to Benefit from IFRS S1/S2 Adoption



Banks & Financial Services

Measuring financed emissions and publishing transition plans attracts green capital, meets regulatory expectations and enables differentiated loan pricing. Early movers reduce funding costs and access concessional climate finance.



Cement Manufacturer

S Firms adopting low-carbon technologies can sell carbon credits (10 million tonnes identified) and gain preferential access to infrastructure tenders. Transparent reporting is essential to secure export orders under CBAM.



Textile Exporters

Companies investing in water recycling and renewable energy maintain EU market access. With CBAM expanding to textiles, early IFRS S2 compliance signals to buyers that emissions are being managed.



Power & Renewable Energy

Utilities integrating climate risk into planning improve creditworthiness. Renewable-energy companies can attract green sukuk funding as PSX expands sustainable finance products.

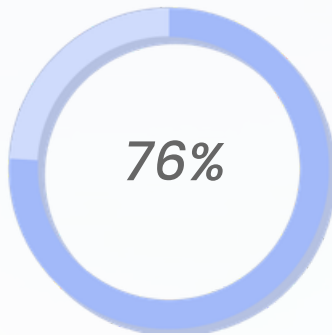


Technology & Telecoms

Transparent reporting on data-centre energy use and supply-chain labour conditions attracts ESG-focused investors. Digital infrastructure is critical for climate-adaptation solutions.

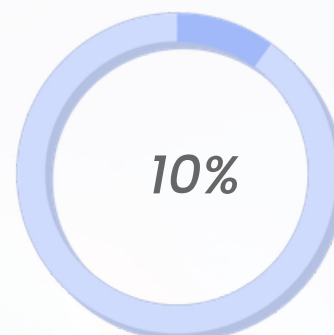
Section 4: Monetising Compliance – Converting ESG into Financial Value

A consistent finding across global research is that companies with high ESG scores tend to deliver better financial performance, attract more capital and enjoy lower volatility. A meta-analysis by the NYU Stern Center for Sustainable Business covering more than 1,000 studies from 2015–2020 found that improved ESG performance correlates with operational efficiencies, superior stock returns and lower cost of capital. Crucially, investors reward performance-based ESG practices rather than disclosure alone.



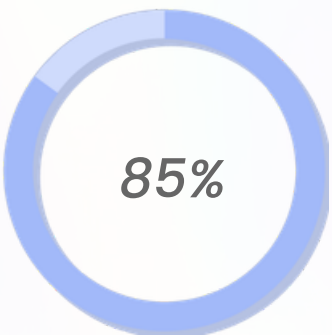
Positive Financial Results

Likelihood of positive or neutral financial results from longer-horizon ESG investments (NYU meta-analysis)



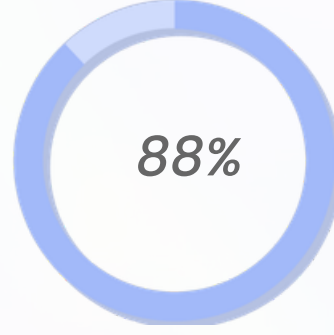
Lower Cost of Capital

Companies with strong ESG practices can raise financing approximately 10% cheaper (RBC/McKinsey)



Institutional Investors

Consider ESG factors in investment decisions; high ESG scorers generate 2.6× greater shareholder returns



Believe ESG Matters More

UK institutional investors believe ESG factors are more important than financial metrics for long-term attractiveness

The Research Consensus

- NYU Stern meta-analysis of 1,000+ studies (2015–2020): ESG performance correlates with operational efficiencies, superior stock returns and lower cost of capital
- RBC/McKinsey: Companies with strong ESG practices raise financing ~10% cheaper
- 85% of institutional investors consider ESG factors in investment decisions
- High ESG scorers generate 2.6× greater shareholder returns
- 88% of UK institutional investors believe ESG factors are more important than financial metrics for long-term attractiveness

Pakistan-Specific Evidence

SECP sukuk approvals in 2025 (+42% YoY)

Oversubscription of inaugural PKR 30B sovereign green sukuk

PKR 12.3T

Islamic banking assets (natural ESG-aligned capital pool)

\$348B

Climate finance need by 2030 (structural demand driver)

ESG Investor Demand & Pakistan's Sustainable Finance Instruments



90%

S&P500 companies publish ESG reports

96%

G250 companies report on sustainability

84%

Identify climate change as a financial risk (up from 67% in 2021)

📌 Morgan Stanley's 2024 Sustainable Signals survey: 77% of global investors were interested in sustainable investing and over 70% believed strong ESG practices can deliver higher returns. More than 58% would select investment professionals based on sustainable investment offerings.

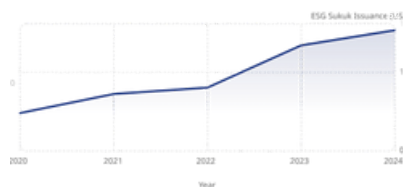
Islamic Banking Growth



Islamic banking assets reached PKR 12.3 trillion (US\$44 billion) with deposits at PKR 9.5 trillion in June 2025, accounting for 21% of total banking assets and 26% of deposits. This liquidity pool is actively seeking Shariah-compliant sustainable investment opportunities.

ESG Sukuk Issuance: Global Context

CHART 10: GLOBAL ESG SUKUK ISSUANCE - USD BILLION (2020-2024)



Pakistan's inaugural sovereign green sukuk (PKR 30 billion) was oversubscribed 10x. Government advisers estimate the market could invest PKR 4 trillion (US\$14.3 billion) annually in green sukuk.

Innovative Instruments: Green Sukuk, Gender Bonds and SDG Bonds

PKR 30B

Oversubscribed 10x · May 2025 · Dams & green projects

PKR 1B

Pakistan's first rupee-denominated green bond · Renewable energy & clean transport

PKR 2.5B

30+ institutional investors · ~30,000 women financed · AAA-rated

PKR 4T

US\$14.3 billion · Government adviser estimate · Addressable market



Green & Transition Sukuk

Combine Islamic finance principles with environmental objectives. Pakistan's May 2025 sovereign sukuk raised PKR 30 billion for dams and green projects. Corporate issuers can tap this channel for renewable energy, clean transport and climate-resilient infrastructure.



Gender Bonds

Pakistan's inaugural gender bond raised PKR 2.5 billion from 30+ institutional investors, financing microloans for ~30,000 women. Complied with SECP gender bond guidelines and UN Women's Empowerment Principles. Oversubscribed and AAA-rated.



SDG & Sustainability-Linked Bonds

The Parwaaz Green Action Bond - Pakistan's first rupee-denominated green bond - raised PKR 1 billion for renewable energy and clean transport. Sustainability-linked bonds tie coupon rates to achieving ESG targets such as emissions reductions or water-use efficiency.

Market Context: Why These Instruments Matter for PSX

Why These Instruments Matter for PSX

Dual Compliance

Green sukuk satisfies both Shariah screening and ESG criteria - unlocking two investor pools simultaneously

Lower Cost of Capital

ESG-labelled instruments typically price 10-30bps tighter than conventional equivalents due to investor demand premium

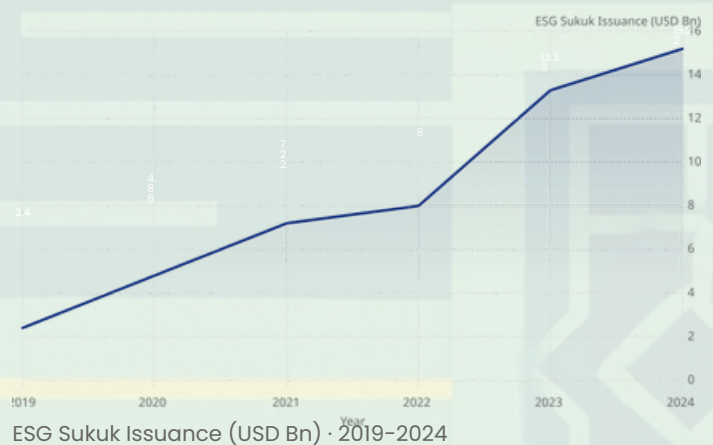
Investor Diversification

Attracts international finance institutions (IFC, ADB, IsDB) and ESG-mandated funds currently absent from PSX

Reputational Signal

Issuance signals governance quality and sustainability commitment - improving overall credit perception

Global ESG Sukuk Market Growth



Pakistan's green sukuk was 10x oversubscribed - demonstrating deep domestic appetite for Shariah-compliant sustainable instruments. The pipeline includes corporate green sukuk from energy, infrastructure and financial sectors.

The Financial Logic: Multiple Returns on a Single Compliance Investment

ESG & IFRS S1/S2 COMPLIANCE - SIX FINANCIAL RETURN STREAMS

A single ESG and IFRS S1/S2 compliance investment generates six distinct financial returns – simultaneously reducing risk, expanding capital access and building long-term competitive advantage.



Lower Cost of Capital

~10% REDUCTION

ISSB adoption improves risk assessment, reducing the risk premium demanded. Better-governed Pakistani firms already enjoy lower financing costs. Early movers gain ~10% lower cost of capital (RBC/McKinsey).



Access to New Funding Pools

\$50 TRILLION+

Global ESG assets projected to exceed \$50 trillion by 2025. Green sukuk, SDG bonds and Shariah-ESG ETFs unlock capital pools currently inaccessible to non-disclosing Pakistani companies.



Increased Valuations & Liquidity

2.6× RETURNS

High ESG scorers generate 2.6× greater shareholder returns. Premium P/B multiples and institutional investor attraction improve secondary market liquidity and reduce bid-ask spreads.



Reputational & Customer Benefits

90% INTANGIBLE VALUE

90% of company value resides in intangibles – brand, trust and governance. ESG disclosure reduces tail risk, improves customer loyalty and strengthens relationships with global supply chain partners.



Export Competitiveness

EU CBAM 2026

EU Carbon Border Adjustment Mechanism applies from 2026–2030. Early IFRS S2 compliance positions Pakistani exporters – especially cement and textiles – to meet buyer disclosure requirements and avoid tariff penalties.



Government Incentives & Regulatory Relief

SECP FRAMEWORK

SECP green bond framework, InfraZamin guarantees and SBP green taxonomy provide regulatory tailwinds. Early adopters benefit from streamlined approvals, concessional finance and first-mover listing advantages on PSX.

The First-Mover Advantage

Cost of Capital

Companies with strong ESG scores pay 10–30bps less on debt issuance – compounding over time into significant savings

Investor Access

77% of global investors interested in sustainable investing (Morgan Stanley 2024) – a pool currently underserved by PSX

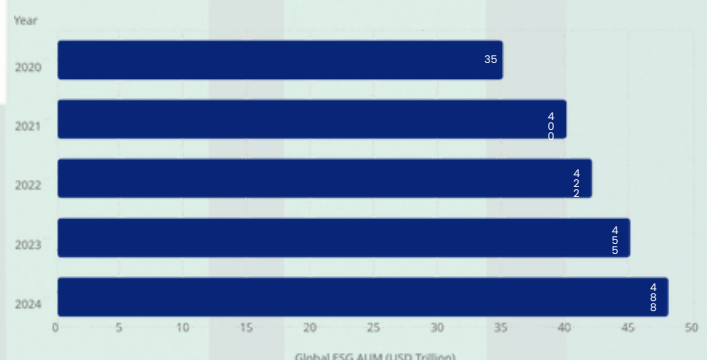
Valuation Premium

ESG leaders trade at 10–20% P/E premium vs. sector peers in comparable emerging markets

Regulatory Advantage

SECP fast-track approvals and InfraZamin partial guarantees reduce issuance cost and timeline for ESG-compliant issuers

Projected ESG Asset Growth



Companies should view ESG and IFRS S1/S2 compliance not as a regulatory burden but as a strategic investment that yields multiple financial dividends. The earlier an issuer invests, the greater the first-mover advantage in investor relations, cost of capital and market perception.

Section 5: Product Innovation for PSX

The next stage of PSX's market development is to convert information gains from mandatory disclosure into investable products. This section shows how PSX can move beyond company-level compliance to build a full ecosystem of ESG indices, Shariah-compliant ESG ETFs, green sukuk and SDG bonds. The analysis demonstrates why product innovation is critical to monetising compliance and achieving scale.

\$40T

Global ESG AUM by 2030

Projected market size for ESG assets worldwide, according to Bloomberg Intelligence

PKR 100M

Target ETF Turnover

Daily turnover goal within year 1 of a Shariah-ESG ETF launch

\$6B

Indonesia Green Sukuk

Benchmark sovereign issuance for the region

63%

Malaysia Islamic Capital Market

Share of total market capitalisation

The Product Pipeline



ESG Leaders Index

IFRS S1/S2-based index with Shariah screens; partner with global index providers; mirror Malaysia's F4GBM and Indonesia's ESG Q45



Shariah-ESG ETF

Track new ESG index; target PKR 100M daily turnover year 1; attract young investors and diaspora capital



Green Sukuk Programme

Annual sovereign issuance; expand retail green sukuk; blue bonds and SDG bonds with specific climate themes



SDG and Gender Bonds

Use InfraZamin Pakistan gender bond template; transition-linked bonds for high-emission sectors



ESG Rating System

Tier companies AAA- BBB; integrate governance quality, carbon intensity, board diversity, supply-chain resilience

Why Now?

- SECP sukuk approvals grew 42% YoY to PKR 158B in 2025
- Inaugural sovereign green sukuk oversubscribed 10x – proving latent demand Islamic banking assets of PKR 12.3T are a
- natural ESG-aligned capital pool
- Global ESG ETF assets reached \$500B+ in 2024; Pakistan has near-zero penetration
- Top 20 ESG ETFs globally attracted billions in net new assets in 2025 alone
- Pakistan's NDC 3.0 priorities (renewables, low-carbon transport, resilient agriculture) create a ready pipeline of eligible projects

🌱 The convergence of Shariah finance principles and ESG criteria is Pakistan's unique competitive advantage – no other major market has this natural alignment at scale.

Top 10 ESG ETFs by Net New Assets: November 2025

26,530

Largest ESG ETF by Assets (USD Mn) ·
iShares MSCI USA ESG Enhanced

5,958

Highest YTD NNA (USD Mn) ·
iShares MSCI USA ESG Screened

716

Highest Single-Month NNA (USD Mn) ·
Amundi MSCI World Screened

10

Top ETFs shown · Combined AUM
exceeds USD 90 billion

1

ESGU LN

**iShares MSCI USA ESG Screened
UCITS ETF**

Assets: USD 18,282Mn · NNA YTD: USD
5,958Mn · NNA Nov: USD 516Mn

2

ESDS LN

**iShares MSCI USA ESG Enhanced
UCITS ETF**

Assets: USD 26,530Mn · NNA YTD: USD
3,900Mn · NNA Nov: USD 195Mn

3

00878 TF

**Cathay Taiwan Select ESG
SustainabilityHigh Yield ETF**

Assets: USD 14,221Mn · NNA YTD: USD
2,858Mn · NNA Nov: USD 299Mn

4

ESDM LN

**iSharesMSCI EM ESG Enhanced
UCITS ETF**

Assets: USD 8,349Mn · NNA YTD: USD
1,359Mn · NNA Nov: USD 376Mn

5

AWDU MN

**AXAIMMSCI World Equity PAB
UCITS ETF**

Assets: USD 1,356Mn · NNA YTD: USD 1,045Mn
· NNA Nov: USD 554Mn

6

USA PF

**AmundiMSCIUSAESG Broad
Transition UCITS ETF**

Assets: USD 6,538Mn · NNA YTD: USD 363Mn
· NNA Nov: USD 327Mn

7

SPSI SW

UBS SPIR ESG ETF

Assets: USD 2,382Mn · NNA YTD: USD 497Mn ·
NNA Nov: USD 343Mn

8

XMAW QY

**Xtrackers MSCI AC World Screened
UCITS ETF**

Assets: USD 5,572Mn · NNA YTD: USD 130Mn ·
NNA Nov: USD 169Mn

9

ESWD LN

**iShares MSCI World ESG Enhanced
UCITS ETF**

Assets: USD 6,653Mn · NNA YTD: USD 801Mn ·
NNA Nov: USD 166Mn

10

WISG PF

**Amundi MSCI World Screened
UCITS ETF**

Assets: USD 730Mn · NNA YTD: USD 717Mn ·
NNA Nov: USD 716Mn



These statistics demonstrate that investors globally are allocating capital through index-based ESG products and that the market is large enough to attract cross-border investors once a credible benchmark exists in Pakistan.

Building a Shariah-Compliant ESG Index and ETF Ecosystem

29%

Year to April 2026 - Mahaana Islamic Index ETF

13.10%

Dividend Yield

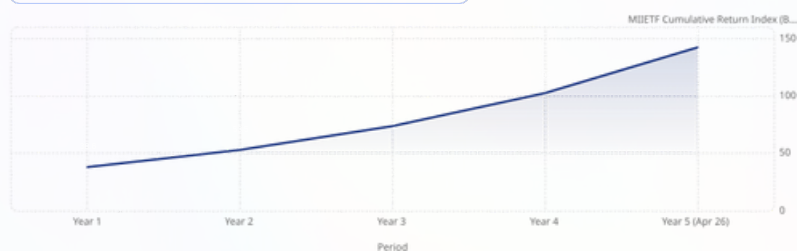
MIETF - Attractive in come for Shariah-compliant investors

Mahaana Islamic Index ETF Performance



The Mahaana Islamic Index ETF (MIETF) delivered a 29% total return over the year to April 2026, with an average annual return since inception of 38.6% and a dividend yield of 13.10%. Such performance underscores demand for Shariah-compliant index products.

CHART 12: MIETF CUMULATIVE RETURN INDEX - BASE 100 (YEAR 1 TO YEAR 5)



Index Construction Framework

01	02
Shariah Screening Exclude haram sectors (alcohol, tobacco, weapons, conventional finance) and high-leverage companies per AAOIFI standards	ESG Scoring Apply IFRS1/S2-aligned ESG metrics: governance quality, carbon intensity, water use, social impact scores
03	04

Dual Filter

Companies must pass both screens - creating a premium-quality, investable universe of 40-60 PSX-listed companies

Index Rebalancing

Quarterly rebalancing based on updated ESG disclosures and Shariah compliance reviews

38.6%

Since inception - MIETF benchmark performance

US\$38.3B

Annual Diaspora Remittances

9 million-strong diaspora - Potential Shariah-ESG ETF channel

Strategic Rationale for Shariah-ESG Index

Differentiated Product

Combines two high-growth segments - Islamic finance and ESG - broadening the investor base beyond either segment alone

Virtuous Cycle

Companies with better ESG scores gain index inclusion and attract capital, motivating laggards to improve disclosure and sustainability performance

Diaspora Appeal

Pakistan's 9 million-strong diaspora remits US\$38.3 billion annually. A Shariah-ESG ETF could channel a portion of remittances into the domestic capital market

Dual Screening Advantage

Shariah screens eliminate highly leveraged, speculative and haram-sector companies - naturally aligning with ESG governance criteria

Global Precedent

Malaysia's FTSE4Good Bursa Malaysia Shariah Index and Indonesia's SRI-KEHATI Index demonstrate proven demand for dual-screened products in Muslim-majority markets

Comparable Regional Products

FTSE4Good Bursa Malaysia Shariah

Malaysia's dual-screened index - 200+ constituents, tracked by multiple ETFs, attracts GCC and global Islamic investors

Indonesia SRI-KEHATI

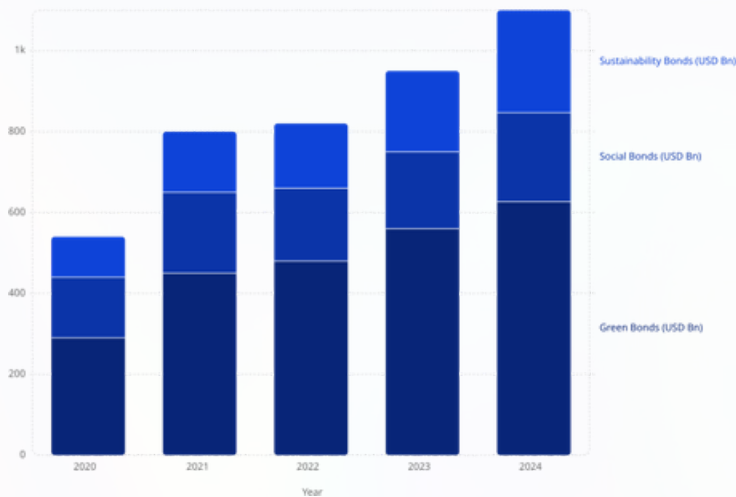
ESG-screened index with 25 constituents - basis for multiple ETF products and pension fund mandates

PSX Opportunity

Pakistan's KSE-100 has 40-60 companies that could qualify for a Shariah-ESG index - sufficient for a liquid, investable benchmark

Green Sukuk and Sustainable Debt: Global Market Context

CHART 11: GLOBAL SUSTAINABLE BOND ISSUANCE – USD BN
(2020–2024)



Source: Climate Bonds Initiative, 2024

PAKISTAN'S SUSTAINABLE DEBT MILESTONES

PKR 30B

Sovereign green sukuk

May 2025 · oversubscribed 10×

PKR 2.5B

Genderbond

30+ institutional investors · AAA-rated

PKR 1B

Parwaaz Green Action Bond

First rupee-denominated green bond

PKR 4T

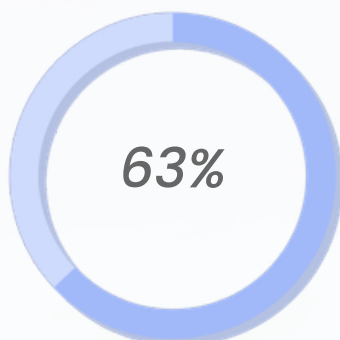
Market potential

Estimated annual green sukuk market potential

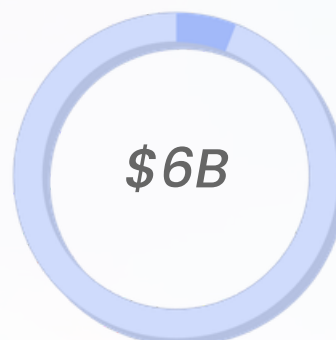
Pakistan's sustainable debt market is nascent but accelerating – the PKR 30B sovereign green sukuk oversubscription signals deep latent demand from institutional investors.

Section 6: Regional Proof of Concept

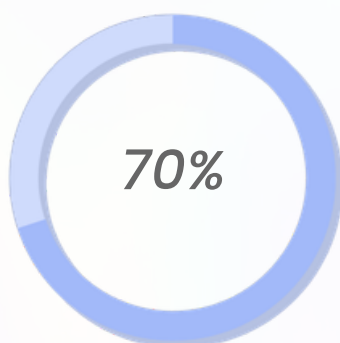
By examining the experiences of comparable emerging-market exchanges—particularly Malaysia's Bursa Malaysia, Indonesia's IDX and Thailand's Stock Exchange of Thailand – PSX can design credible ESG products and Shariah-aligned instruments. This section synthesises the data behind Malaysia's mature sustainable-finance ecosystem, Indonesia's fast-growing green-sukuk market and the regional momentum in ESG indices.



Malaysia's Islamic Capital Market as % of total market cap



Indonesia sovereign green sukuk issued to date



Thailand ESG-rated companies as % of market cap



Key regional markets with transferable models for Pakistan

Why Regional Peers Matter

- Malaysia, Indonesia and Thailand are comparable emerging markets with Islamic finance traditions
- All three have successfully integrated ESG with Islamic finance principles
- Malaysia's Bursa Malaysia launched the FTSE4Good Bursa Malaysia (F4GBM) Index – now a benchmark for Shariah-ESG integration
- Indonesia has issued USD 6 billion in sovereign green sukuk since 2018 – the world's largest sovereign green sukuk programme
- Thailand's ESG-rated companies represent 70% of total market capitalisation
- All three demonstrate that ESG and Islamic finance are complementary, not competing

Key Transferable Lessons

Regulatory Mandate First

All three markets used regulatory mandates to drive initial adoption before market incentives took hold

Index as Anchor

ESG indices provided the investable benchmark that attracted institutional capital

Sukuk as Bridge

Green sukuk bridged Islamic finance and sustainability, unlocking new investor pools

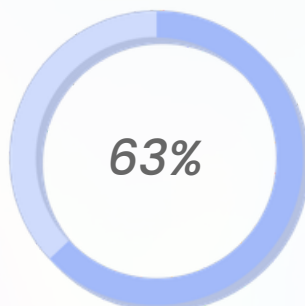
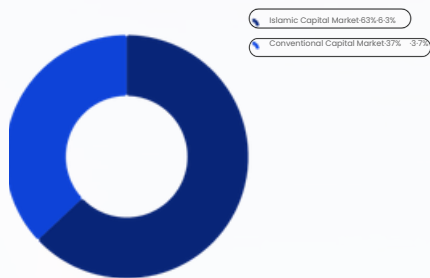
Capacity Before Products

All three invested in training and taxonomy development before launching complex products

- ① Pakistan can leapfrog the early-stage mistakes of regional peers by adopting proven frameworks – ASEAN taxonomy, ISSB standards and Shariah-ESG index methodology – rather than building from scratch.

Malaysia: An Integrated Sustainable-Finance Ecosystem

CHART 13: ISLAMIC CAPITAL MARKET DOMINANCE - MALAYSIA (%)



Islamic Capital Market as % of total market cap
RM2,634B ≈ US\$560B

CHART 14: ISLAMIC AUM GROWTH - RM BILLION (2022-2024)

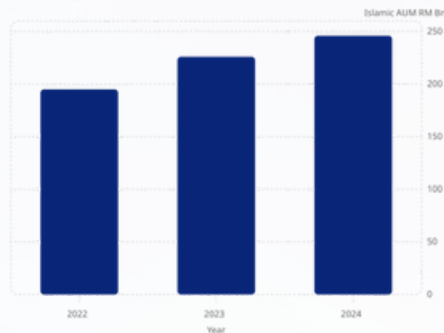
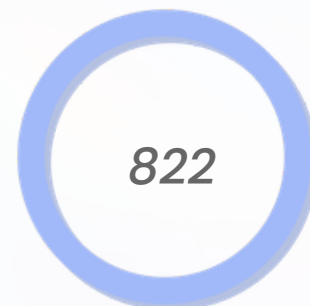


CHART 15: SRI SUKUK ISSUANCE - RM BILLION (2022-2024)



Shariah-compliant listed companies
79.11% of all listed securities



Corporate sukuk outstanding
63.12% of total corporate bonds & sukuk

Key Policy Levers Driving Malaysia's Success



SRI Grant Scheme

Reimburses up to 90% of external review costs; 34 issuers have benefited. Directly lowers the cost of sustainable issuance.



Tax & Stamp Duty Relief

Tax deductions and stamp-duty exemptions on SRI sukuk reduce the all-in cost of raising sustainable capital.



ESG Index Infrastructure

FTSE4Good Bursa Malaysia Index and dedicated Shariah-ESG screens create investable benchmarks that attract passive capital.



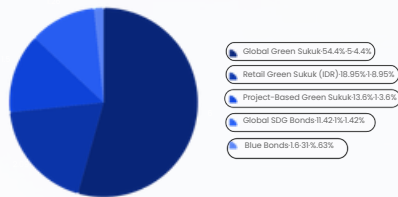
Integrated Regulatory Framework

SC Malaysia and Bursa Malaysia co-ordinate disclosure, listing rules and product approvals under a unified sustainable-finance roadmap.

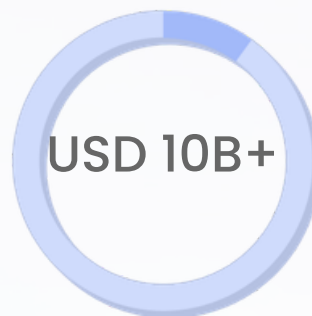
Pakistan Takeaway: Malaysia's success rests on three pillars - cost incentives (grants, tax relief), investable infrastructure (ESG indices, Shariah screens) and regulatory co-ordination. PSX and SECP should replicate all three to accelerate Pakistan's sustainable capital market.

Indonesia: Sovereign Green Sukuk and ESG Index Leadership

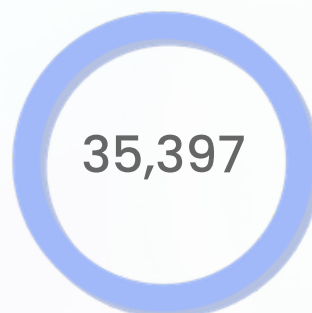
CHART 16: INDONESIA'S SOVEREIGN GREEN SUKUK ISSUANCE PROGRAMME – CUMULATIVE USD BN



Key Market Statistics



Cumulative sovereign green & SDG issuance since 2018



Retail green sukuk investors in 2022 alone



Assets across IDX's five ESG indices

ESG Index Landscape

IDX ESG Leaders

Top ESG-rated companies by sector

IDX ESG Quality

Quality-screened ESG constituents

IDX ESG Sector Leaders

Best-in-class by industry

IDX LQ45 ESG

ESG overlay on blue-chip LQ45 index

IDX Climate Transition

Companies aligned to net-zero pathways

Combined AUM: USD 470M across all five indices.

Key Lessons for Pakistan



Scale Retail Demand

Indonesia's retail green sukuk attracted 35,397 investors in a single year. Pakistan's 10x oversubscription signals the same latent demand – PSX should launch a retail green sukuk platform targeting diaspora and domestic savers.



Build ESG Index Products

IDX's five ESG indices have attracted USD 470M in assets. PSX should partner with FTSE Russell or MSCI to create IFRS S1/S2-based ESG and climate-transition indices as the foundation for ETFs and passive funds.



Establish Taxonomy & Disclosure Rules

Indonesia's key challenge – limited Scope 3 data and climate disclosure capacity – mirrors Pakistan's gaps. A national green taxonomy and mandatory IFRS S1/S2 disclosures are the prerequisite for credible sustainable capital markets.

Pakistan Takeaway: Indonesia's sovereign green sukuk programme proves that a Muslim-majority emerging market can build a globally recognised sustainable debt market from scratch. Pakistan's oversubscribed PKR 30B sukuk is the starting point – not the destination.

Regional Comparison: Transferable Models for Pakistan

Three markets. One lesson: sustainable finance ecosystems are built through regulatory incentives, investable products, and mandatory disclosure – not voluntary guidelines.

Regulatory Frameworks

MY Malaysia

IFRS S1/S2-aligned · SRI Sukuk Framework · 90% grant for external reviews · Extensive Islamic Capital Market rules

ID Indonesia

Sustainable Finance Roadmap (POJK 51/2017) · Mandatory ESG indices · National green taxonomy in development

TH Thailand

SET ESG Ratings as official benchmark · Transitioning to FTSE Russell ESG Scores in 2026 · 265 rated companies

PK Pakistan Opportunity

Voluntary ESG guidelines only · Nascent green sukuk framework · Replicating grant schemes would accelerate compliance

Market Size & Product Innovation

RM 2.6T

Malaysia ICM · 63% of market cap is Shariah-compliant · 30 Islamic SRI funds · FTSE4Good indices, Shariah ETFs, SRI Sukuk, Islamic REITs

USD 6.1B

Indonesia ESG market · Green sukuk USD 6B · Retail sukuk IDR 30.68T · SRI-Kehati index, ESG leaders index, SDG & blue bonds

THB 76B

Thailand ESG funds AUM (≈USD 2.38B) · 265 rated companies = 70% of market cap · SET ESG Ratings drive Thai ESG fund flows

PKR 18T

Pakistan PSX market cap · ~500K retail investors · Latent demand confirmed by 10× sukuk oversubscription

Investor Participation Comparison



Malaysia: 6,100 ETF Investors

822 Shariah-compliant stocks · 422 Islamic collective investment schemes · Deep institutional and retail base



Indonesia: Tens of Thousands

Retail green sukuk attracted 35,397 investors in 2022 alone · USD 470M in ESG index AUM



Thailand: 265 Rated Companies

Represent 70% of total market capitalisation · SET ESG Ratings used as official investment benchmark



Pakistan: 500K Retail Investors

Targeted ESG products and improved IFRS S1/S2 disclosure could dramatically broaden participation and attract foreign capital

 PSX Action Point: All three comparator markets succeeded by combining three elements – cost incentives (grants, tax relief), investable infrastructure (ESG indices, ETFs, sukuk), and regulatory mandates (disclosure rules, taxonomies). Pakistan currently has none of the three at scale. The window to act is now.

Section 7: Implementation Roadmap

This section presents a practical market-activation plan. It outlines how PSX, SECP and market partners can systematically build ESG and IFRS S1/S2 readiness across listed companies, mobilise sustainable finance instruments and translate compliance into capital-market value. The roadmap is grounded in global capacity-building data and local market statistics.



- PSX cannot mandate compliance alone – it must orchestrate an ecosystem. SECP supplies the regulatory mandate, PSX the market infrastructure, and partners such as SBP, ICAP, ACCA, the IFRS Foundation and UN SSE add capacity and credibility. The rollout should be sequenced: KSE-100 mandatory reporters first, then GEM Board issuers, then SMEs.



WS1: Governance & Oversight

Board-level ESG accountability frameworks.



WS2: Data & Measurement

GHG accounting and climate-risk tools.



WS3: Disclosure & Reporting

IFRS S1/S2 templates and assurance readiness.



WS4: Product Development

ESG indices, ETFs and sukuk structuring.



WS5: Capacity Building

Training 5,000+ professionals in English and Urdu.



WS6: Monitoring & Recognition

PSX ESG Readiness Index and annual awards.

- Target: PKR 500 billion in cumulative green sukuk, SDG bonds and sustainability-linked instruments by 2028 – realistic given the 10× oversubscription of the inaugural green sukuk and SECP's 42% year-on-year growth in sukuk approvals.

Company Segmentation & The IFRS S1/S2 Readiness Factory

Six Company Segments: Who Needs What



Mandatory Reporters

KSE-100&GEMboard · ~140 companies · 80%+ of market cap · Face mandatory ISSB adoption first



Early Movers

30–40 companies already producing sustainability reports · Banking, telecom, fertiliser, energy · Ready to lead



High-Risk Sectors

Banks, oil & gas, cement, textiles, fertiliser, power · 60%+ of market cap · Highest ESG exposure and transition risk



Export-Facing Companies

Textile & leather · USD 17B annual exports · 40% of industrial workforce · EU CBAM exposure creates urgency



Financial Institutions

40 listed banks, insurers, asset managers · SBP climate stress-test requirements · Gateway to green lending



Sustainable Finance Issuers

Renewable energy, microfinance, gender-focused enterprises · SECP PKR 158B sukuk approvals in 2025

The IFRS S1/S2 Readiness Factory: Six Work-Streams



WS1: Governance & Oversight

Boards sustainability committees · Director ESG training (10+ hours/year) · Sustainability charters integrated into enterprise risk management



WS2: Materiality & Strategy

Enterprise value and impact materiality assessments · 12+ core sustainability KPIs · Climate scenario analysis (1.5°C and 2°C)



WS3: Data Management

Digital ESG data platforms · XBRL-tagged reporting · Scope 1/2 emissions within 12 months · Scope 3 within 36 months



WS4: Risk & Metrics

Physical and transition risk quantification · 5+ measurable targets with baselines · Internal carbon pricing · Energy intensity metrics



WS5: Disclosure & Assurance

Integrated sustainability disclosures with financial statements · Limited assurance by year 2 · Reasonable assurance by year 3



WS6: Capital Market Engagement

ESG investor roadshows · Green sukuk and SDG bond eligibility · PSX ESG index inclusion criteria · Sustainability-linked financing

90-Day, 12-Month and 36-Month Implementation Roadmap

0-90 DAYS

Immediate Mobilisation

561 companies · 5+ webinars

- Launch ESG & IFRS S1/S2 Readiness Programme
- Sign MoUs with IFRS Foundation, UN SSE, SECP, ICAP, ACCA
- Collect baseline self-assessments from all listed companies
- Segment companies into readiness cohorts
- Develop training curriculum in English and Urdu

3-12 MONTHS

Deepening Capacity

1,000+ trained · 3+ sukuk structured

- Deliver 8 training modules for 1,000+ participants
- Pilot Readiness Factory with 30 volunteer companies
- Publish quarterly PSX ESG Readiness Index
- Structure 3+ new green sukuk or SDG bond issuances
- Offer listing fee discounts for leader-status companies
- Recognise early adopters at PSX awards

12-36 MONTHS

Embedding & Monetising

PKR 500B target · 5,000+ certified

- Mandate IFRS S1/S2 disclosures for all PAEs by 2027 (top 50 FY2026, next 50 FY2027, all remaining FY2028)
- Onboard all 561 listed companies to Readiness Factory
- Train 5,000+ professionals
- Launch PSX ESG Leaders Index and Shariah-ESG ETF by year 2

PKR 500B

Cumulative Sustainable Issuance

Target by 2028

5,000+

By end of Phase 3

561

Listed Companies

Fully onboarded to Readiness Factory

- ✓ Target: PKR 500 billion in cumulative green sukuk, SDG bonds and sustainability-linked instruments by 2028 – realistic given the 10× oversubscription of the inaugural green sukuk and SECP's 42% year-on-year growth in sukuk approvals.

Roles and Responsibilities: Building the Ecosystem

Pakistan's sustainable finance ecosystem requires five actors to move in concert – each with a distinct mandate, measurable targets, and a shared deadline.

The Five Ecosystem Actors



PSX

Develop ESG indices and data platforms · Build sustainable product pipelines · Run capacity-building programmes · Create listing incentives for early ESG adopters · Target: ESG Leaders Index by Year 2



SECP

Enforce phased IFRS S1/S2 implementation · Finalise Green Taxonomy · Mandate third-party assurance · Provide tax incentives for sustainable issuance · PKR 158B sukuk approvals in 2025 (+42% YoY)



Auditors & Consultants

Build GHG verification capacity · Conduct IFRS S1/S2 readiness assessments · Design internal ESG controls · Offer gap-assessment services · Only 12% of companies currently measure Scope 3



Asset Managers & Investors

Engage issuers on ESG integration · Launch ESG-themed mutual funds and ETFs · Integrate sustainability into investment decisions · USD 500B+ global ESG ETF assets – Pakistan near-zero penetration



Listed Companies

Establish board sustainability committees · Invest in ESG data systems · Set science-based targets · Issue green sukuk and SDG bonds · 5,000+ professionals to be trained · PKR 500B issuance target by 2028

Critical Success Factors

- Regulatory clarity: SECP must finalise Green Taxonomy and assurance requirements by Q2 2026
- Market infrastructure: PSX must build ESG data platform before product launch
- Capacity: ICAP and ACCA must certify 500+ ESG assurance practitioners by 2027
- Incentives: Listing fee discounts and tax incentives for early adopters must be legislated
- International credibility: MoUs with IFRS Foundation and UN SSE signal commitment to global standards

Risk Factors

Greenwashing Risk

Without robust assurance requirements, ESG claims may lack credibility – undermining investor confidence

Capacity Gap

Only 12% of Pakistani companies measure Scope 3 emissions; GHG accounting skills are scarce

Data Infrastructure

Most listed companies lack the IT systems to collect and report IFRS S1/S2-compliant data

Regulatory Fragmentation

Misalignment between SECP, SBP and FBR on taxonomy and incentives could slow adoption

Designing Pakistan's Sustainable Finance Model: Six Strategic Actions

01 Create IFRS S1/S2-Based ESG Indices with Shariah Screens

Partner with global index providers to develop ESG, climate-transition and governance-leader indices. A Shariah overlay excludes non-halal activities and high-leverage companies, mirroring Malaysia's F4GBM and Indonesia's ESG Q45 indices.

02 Launch Shariah-Compliant ESG ETFs and Smart-Beta Funds

Collaborate with asset managers to launch Shariah-compliant ESG ETFs tracking new indices. Target PKR 100 million daily turnover within the first year. Smart-beta ETFs focusing on high-ESG-score momentum attract young investors and diaspora capital.

03 Scale Up Green Sukuk, SDG and Gender Bonds

Commit to annual sovereign green sukuk and expand retail green sukuk. Issue SDG bonds and blue bonds with specific climate and social themes. Use InfraZamin Pakistan gender bond template for transition-linked bonds.

04 Develop an ESG Rating and Disclosure Ecosystem

Introduce ESG Ratings classifying listed companies into tiers (AAA-BBB). Integrate enterprise-value-relevant metrics – governance quality, carbon intensity, board diversity, supply-chain resilience – drawing on IFRS S1/S2 data.

05 Collaborate on Capacity Building and Taxonomy Development

SECP, SBP, PSX and professional bodies jointly develop a Pakistan Sustainable Finance Taxonomy aligned with ASEAN taxonomy. Train listed companies on GHG accounting, climate-risk assessment and ESG assurance.

06 Align ESG Products with National Climate and Development Priorities

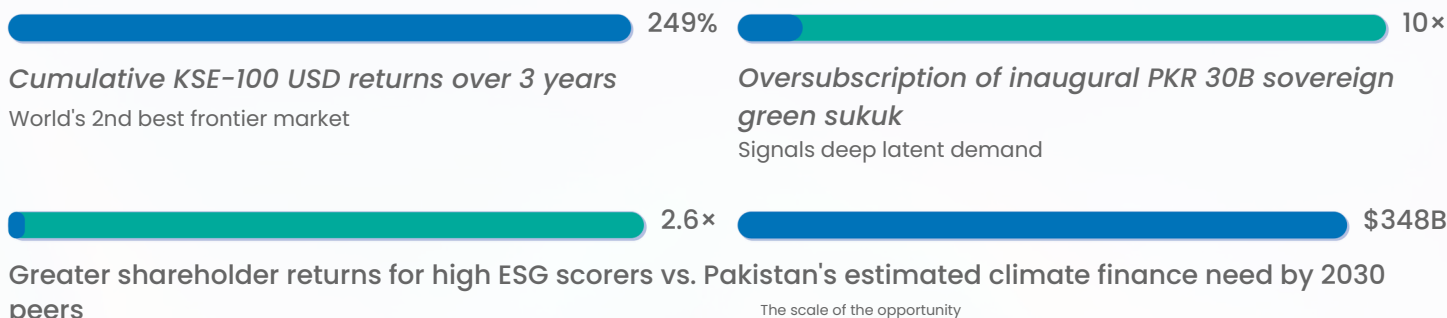
ESG indices and sukuk should prioritise sectors aligned with NDC 3.0 priorities – renewable energy, low-carbon transport, resilient agriculture and water management. Align projects with national priorities to ensure investor impact and government support.

Conclusion: From Compliance to Capital Flow

"The question facing listed companies is no longer 'must we comply with ESG and IFRS S1/S2?' but 'how quickly can we monetise compliance?'"

PSX sits at a strategic inflection point. Demutualisation and foreign investment have transformed it from a trading venue into a market-shaping institution. The transition to IFRS S1/S2 sustainability reporting and Islamic finance-aligned ESG products is reshaping investor expectations and capital flows globally – and Pakistan cannot afford to be left behind.

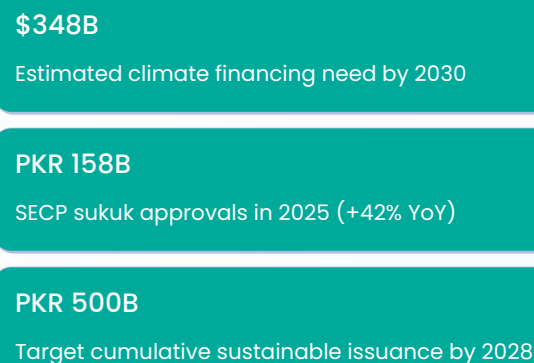
The Numbers That Define the Opportunity



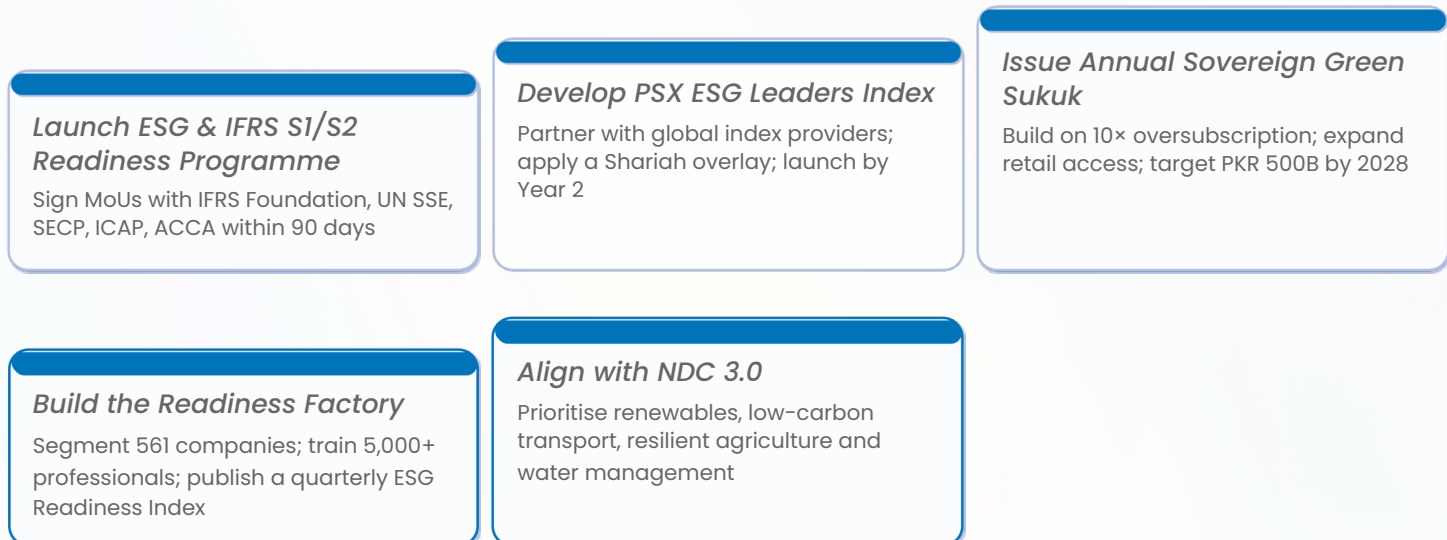
The Virtuous Cycle



Pakistan's Climate Finance Gap



Five Immediate Actions for PSX



⚠ The cost of inaction is not zero. Companies that delay ESG disclosure face stranded-asset risk, investor exit, export market penalties under EU CBAM and a widening cost-of-capital gap versus early movers.

The Closing Message: Trust, Capital and Competitiveness

Trust Through Disclosure

IFRS S1/S2 compliance provides the structured framework to demonstrate governance quality and sustainability performance, reducing information asymmetry. Empirical research on Pakistani firms shows a significant negative relationship between corporate governance compliance and cost of capital.

Capital Through Confidence

ESG-aligned instruments – green sukuk, SDG bonds, Shariah-ESG ETFs – provide the bridge between Pakistan’s climate financing needs and available capital pools. The oversubscription of the sovereign green sukuk and gender bond proves that domestic and international investors will commit capital when products align with sustainability goals.

Competitiveness Through Action

PSX’s opportunity is to lead the next stage of Pakistan’s capital-market development. By championing IFRS S1/S2 adoption, aligning Shariah finance with ESG principles and building a pipeline of sustainable finance products, PSX can position itself alongside Bursa Malaysia and IDX as a regional hub for climate-aligned capital.

The future of ESG in Pakistan will be won by companies that convert disclosure into trust, trust into capital and capital into long-term competitive advantage. PSX holds the map – and the starting gun.

How Sustainability Can Help

ARCHITECTS OF HIGH-PERFORMANCE TRANSITIONS · SUSTAINABILITY.COM

About Sustainability

Sustainability engineers the data ecosystems that converge Shariah finance and sustainability to drive alpha and secure multi-jurisdictional compliance. For PSX-listed companies, SECP, asset managers and sovereign issuers navigating IFRS S1/S2 adoption, Sustainability delivers four integrated service lines.

\$9.0T

Annual climate finance requirement by 2030

\$4.9T

Islamic finance projected market size by 2026

\$250B

Projected blended finance flow by 2030

Technology & Data Intelligence

Unified Intelligence Engines · Digital Twin Modeling · Auditable Governance systems meeting IFRS S1/S2 and ESG standards

Data & Disclosure

Full data provenance · Global standard alignment (IFRS S1/S2, Shariah, ESG) · Forward-looking predictive analytics

Strategic Advisory

IFRS S1/S2 readiness assessments · Green sukuk and SDG bond structuring · Investor alignment with Shariah-conscious and ESG capital

Talent & Transition

Transition resilience frameworks · ESG data systems training · Cross-functional capacity building

Partner with Sustainability to operationalise your sustainability mandates into measurable financial performance.