ECONOMIC POLICY
& BUSINESS DEVELOPMENT
THINK TANK

'an independent, non-partisan, not for profit organization'

Shadow

Five-Year Development Plan

2026-2031

(Based on 21 Identified Sectors)

'An Alternate Plan: From Stabilization to Growth'

‘Promoting People and Business Friendly Policies’

A Blueprint for Development Transformation

ABOUT EPBD

OUR VISION

EPBD's vision is to provide strategic advice and thought leadership to policy makers in shaping a dynamic, inclusive, and forward-looking economic policy ecosystem that unleashes the full potential of private enterprise, drives sustainable GDP growth, and ensures equitable prosperity for all.

OUR MISSION

Advocacy for evidence-based and market-friendly economic policies; that catalyze industrial growth, job creation, and export competitiveness:

- Champion private sector led development by identifying and promoting reforms that incentivize innovation, investment, and fair competition.
- Promote inclusive growth by ensuring that policy outcomes support social mobility, reduce inequality, and enable Pakistan's youth to thrive in a modern, industrial economy.
- Foster informed dialogue between policy makers and business leaders to align national economic priorities with global opportunities.

Economic Policy & Business Development, Think Tank

Contributors

Team EPBD led by **Eazaz Dar**

Mahwish Javed Khan
Development Analyst

Muhammad Mubasal
Economic Analyst

Ambreen Shabbir
Economic Analyst

Linta Amjad
Jr. Economic Analyst

Shahid Mehmood
Planning Consultant (Former PIDE Economist)

Designed By

Maria Saeed
Creative Communications Architect

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  Chief Executive Officer EPBD & Board Member

MESSAGE FROM THE PATRON-IN-CHIEF

Mr. Bashir Jan Muhammad

It is my pleasure to present what, I believe, is a defining moment in Pakistan's policy history and advocacy - EPBD's shadow document; first ever produced by any think tank in the country. This initiative is rightly aligned with EPBD's founding purpose of providing independent, evidence-based alternatives to official policy frameworks, and advocacy for human centric policy approaches. I am delighted to note that EPBD is presenting 'Shadow Five Year Development Plan 2026-2031' based on the principle, 'A Blueprint for Development Transformation' as part of this landmark suite of four shadow documents. I would like to commend the lean, and highly committed team of EPBD, for the dedication, passion and rigour they have brought to this work.

All proposals in these documents are demand-driven and evidence-based, developed through rigorous sectoral research, structured stakeholder consultations, and expert peer reviews. It is my sincere hope that these will prove genuinely useful to policymakers and that this effort yields positive, tangible outcomes for growth of Pakistan's economy and its people. I would like to express my deep appreciation for the Board, particularly the Chairman Dr. Gohar Ejaz and the CEO Sardar Ahmad Nawaz Sukhera, whose vision, initiative, guidance and steadfast support have made this pioneering endeavour possible.

Bashir Jan Muhammad

MESSAGE FROM THE CHAIRMAN

Dr. Gohar Ejaz, HI, SI

Charting a Resilient Future: Our Strategic Vision for 2026–2031

As we stand at the threshold of a new developmental horizon, it is my privilege to present Pakistan's first-ever Shadow Five-Year Sectoral Development Plan, spanning 21 identified sectors. This document is not merely a roadmap for growth; it is a testament to our unwavering commitment to sustainable progress, institutional excellence, and the socio-economic empowerment of our communities.

Pakistan holds a rich history of strategic foresight, having achieved remarkable economic growth and infrastructure milestones through the successful implementation of Five-Year Plans in the 1950s and 1960s. These eras demonstrated the power of robust, centralized planning to effectively mobilize national resources toward collective goals. However, in recent years, the efficacy of these frameworks has diminished.

Our objective is collaborative, not adversarial; to equip the government with a practical set of policy options that shift the focus from short-term stability to sustainable, high-growth outcomes. This shift is urgent amid rising poverty, unemployment, and accelerating brain drain. Rather than a wish list and recognizing that no plan document can cover everything under the sun, we have focused on those sectors where the quickest and most substantial dividends can be earned in the most cost-effective manner. We offer an evidence-based, actionable framework with clear analysis, aimed at initiating public debate and driving economic growth through a human-centric approach by reducing poverty, unemployment and increasing real incomes.

The global landscape is currently defined by rapid technological shifts and evolving economic paradigms. To remain competitive and impactful, we must move beyond incremental change. This Plan adopts a Shadow framework—a proactive, agile approach designed to address systemic challenges. By prioritizing data-driven decision-making and cross-sectoral synergy, we are positioning ourselves to turn potential disruptions into clear competitive advantages. Our strategic focus for the next five years is anchored by foundational pillars designed to ensure long-term viability and impact. First, we are committed to Integrated Innovation, proactively leveraging emerging technologies to optimize sectoral productivity and redefine our standards for service delivery. We also recognize that our ambitions are realized through people; thus, we prioritize Human Capital Excellence by cultivating a high-performing, future-ready workforce equipped with the agility to lead and thrive within an increasingly complex global economy.

This Plan is a collaborative blueprint. Its success relies on the collective resolve of our stakeholders, the ingenuity of our partners, and the dedication of our teams. We are not just planning for the next five years; we are building the foundation for the next generation. I invite you to engage with this vision as we embark on this journey. Together, we will transform these strategic objectives into a legacy of measurable impact and enduring prosperity.

Dr. Gohar Ejaz, HI, SI

FOREWORD BY CEO

Sardar Ahmad Nawaz Sukhera, HI, PAS (Retd.)

As a new non-partisan and independent think tank, committed to national economic development, our primary value lies in the intersection of rigorous intellectual inquiry and practical application. The Shadow Five-Year Sectoral Development Plan (2026–2031) represents our ambitious but sincere effort, serving as Pakistan's first-ever Alternate Policy and Plan Framework. Our resolve is to ensure quality research, and to generate an informed debate around the menu of policy choices EPBD has created for the policy makers, by proposing actionable, scalable, and measurable outcomes between 2026 and 2031.

We are providing an independent, human centric blueprint, moving beyond theoretical recommendations toward a functional architecture for spurred national growth and development. Our objective is constructive rather than adversarial: to provide the government with a rigorously developed set of policy options that enable a transition toward sustainable, high-growth trajectories. This reorientation is imperative in light of escalating poverty and unemployment. Aligned with the EPBD's strategic proposals, we aim to mitigate brain drain by reducing the tax burden on the salaried class, thereby bolstering real incomes. This increase in disposable income is expected to drive demand for local industrial and business sectors, creating a synergistic economic cycle that facilitates sustained, higher GDP growth. We present a disciplined, evidence-based framework supported by quantified cost–benefit analysis.

Recognizing that no planning document can address every contingency, our strategy prioritizes sectors capable of delivering the most substantial and immediate dividends in a cost-effective manner. This approach is underpinned by a human-centric commitment to high growth, with the ultimate objective of alleviating poverty through the systemic expansion of real incomes and the creation of meaningful employment opportunities.

Our approach relies on an independent evaluation backed by extensive in-house secondary research and the collective expertise of public and private sector stakeholders. We have moved past superficial macro-analysis to provide detailed diagnostics across 21 critical sectors, integrating in-depth analysis of both macro and micro-level challenges. This document provides a comprehensive analysis of Pakistan's most critical sectors—including Agriculture, Energy, Digital Economy, Housing & Construction, Engineering, Textiles, and Human Development—to ensure a holistic approach to national revitalization. Beyond high-level policy, the Plan meticulously details the capital requirements and strategic investment frameworks necessary for each area, ranging from modernization of irrigation infrastructure and renewable energy transitions to the scaling of tech-hubs and industrial value chains.

As part of this comprehensive review, we scrutinized the existing Public Sector Development Program (PSDP) and its 800 projects, identifying 91 specific initiatives for immediate rationalization to ensure capital efficiency. This rigorous audit was driven by a commitment to fiscal rectitude, ensuring that state resources are directed toward programs with the highest socio-economic multiplier effect. The decision to rationalize these 91 initiatives was a surgical adjustment designed to eliminate redundant expenditures and consolidate fragmented resources, allowing us to redirect capital toward high-velocity infrastructure and critical human capital development.

To catalyze this transformation, we have estimated a required investment of PKR 18.5 trillion, with it's financing modalities, and serves as a definitive roadmap to drive meaningful change. This investment package is structured as a cornerstone of our long-term fiscal policy. This roadmap provides the predictability and stability required to encourage private sector participation, leveraging public spending to de-risk and incentivize broader, sustained economic activity.

By aligning our proposed interventions with financial projections, we aim to increase GDP growth from current 3.7 percent in FY26 to 8.5 percent by FY31. This path is not merely aspirational; it is a measurable objective supported by empirical modeling, ensuring that our trajectory remains both ambitious and fundamentally grounded in fiscal realism.

Every recommendation within this plan was formulated through a multidimensional analysis covering policy and regulatory matters, export potential, access to finance, technology adoption, human resource development, market access, and tax structure. The next five years demand a departure from the status quo, and this plan represents our commitment to being more than an observer of change; we are the architects of the evidence that makes progress possible. EPBD looks forward to working with our partners and stakeholders to turn these strategic insights into a lasting legacy of economic revitalization.

Implementation of this vision necessitates strong resolve and an unwavering commitment to our national objectives. As we transition from planning to execution, I am confident that our unified approach will yield a resilient and competitive economic foundation. Let us proceed with the shared resolve required to transform these aspirations into tangible, enduring milestones of success.

Sardar Ahmad Nawaz Sukhera, HI, PAS (Retd.)

TABLE OF CONTENTS

LIST OF **ACRONYMS**

ADP	Annual Development Plan
API	Active Pharmaceutical Ingredient
APTMA	All Pakistan Textile Mills Association
CPI	Consumer Price Index
CPP	Captive Power Plants
CRF	Central Research Fund
CTBCM	Competitive Trading Bilateral Contracts Market
DISCOS	Distribution Companies
DLTL	Drawback of Local Taxes and Levies
DRAP	Drug Regulatory Authority of Pakistan
DPI	Digital Public Infrastructure
DPP	Digital Product Passport
GDP	Gross Domestic Product
GIS	Geographic Information System
GST	General Sales Tax
FASTER	Fully Automated Sales Tax e-Refund
FBR	Federal Board of Revenue
FDI	Foreign Direct Investment
FED	Federal Excise Duty
FTR	Final Tax Regime
JV	Joint Venture
MNHSR	Ministry of National Health Services
MoCC	Ministry of Climate Change
MoST	Ministry of Science and Technology
MoITT	Ministry of Information Technology & Telecommunications
MoNFSR	Ministry of National Food Security & Research
OGRA	Oil and Gas Regulatory Authority
PRGMEA	Pakistan Readymade Garments Manufacturers & Exporters Association
NEPRA	National Electric Power Regulatory Authority
PPP	Public Private Partnership
R&D	Research and Development
ROI	Return on Investment
SCADA	Supervisory Control and Data Acquisition
SEPC	Security and Exchange Commission of Pakistan
GLOF	Glacial Lake Outburst Floods
T&D	Transmission and Distribution
TDAP	Trade Development Authority of Pakistan
TERF	Temporary Economic Refinance Facility
TEVTA	Technical Education & Vocational Training Authority
US FDA	U.S. Food and Drug Administration
WHO	World Health Organization

LIST OF TABLES/FIGURES

EXECUTIVE SUMMARY

Pakistan's economy has come a long way from its initial beginnings when it started its journey in a precarious position. In its seventy-eight-year journey, notable achievements have been accomplished in all its sectors (Agriculture, Industry and Services), with growth of various forms of infrastructure presenting a good reflection of these developments. At present, the size of its economic pie is estimated at about $452 billion.

However, despite plentiful promises and achievements, the journey has been marred by an uneven trajectory of GDP growth and largely unrealized potential, despite the country's ample resources (like human capital). To effectively leverage population growth by engaging the working-age labor force and increasing per capita income, a sustained growth rate of at least six percent or more is required. While Pakistan has achieved this level of growth, it has been the exception rather than the norm - with GDP growth generally remaining low and some years recording negative growth.

Low GDP growth in aggregate and low per capita income is complemented by low Human Development Indicators (i.e., education and health). Most governance expenditure has traditionally been allocated to current (non-development) spending, and the public sector retains a significant economic footprint.

Within all this, the private sector has carved out a niche for itself despite heavy odds. The largest business groups have a regional and international presence and employ a substantial portion of Pakistan's labor force. Challenges of various sorts, though, remain abundant for its growth and further expansion.

The multifold challenges confronting Pakistan's economy call for a coherent strategy that could set its economy on a path to achieving GDP growth rate of 8.5 percent in the coming years. This first ever EPBD's 'Shadow Five Year Development Plan' is particularly aimed at formulating such a strategy with the objective of helping policy makers to focus on peoples' betterment. Twenty-one of the economy's critical sectors have been selected and analyzed thoroughly, given their importance in both local and international context. Sectors including Agriculture, Energy, Housing and Construction, Textiles, Digital Economy and Pharmaceutical sectors are high impact and hence high priority sectors, given their domestic and global market size, importance and capacity to grow and contribute significantly to Pakistan's economic growth.

The analysis not only identifies the main constraints preventing these sectors from performing to their optimal potential but also highlights the economic losses arising from their sub-par performance, while suggesting reform proposals and outlining the potential benefits to the economy from their implementation. The underlining theme of the analysis is facilitation of increased private sector investment in various sectors in the coming years, mainly via economic reforms in the public sector. The analysis of 21 sectors centers on six major criterion: Policy and Regulatory matters, Technology Adoption, Human Resources, Access to Finance, Market Access and Development, and Tax Structure. Interviews were conducted with industry experts and public functionaries working in the relevant sectors to ensure analytical depth and objectivity. In addition, PSDP was analyzed to determine the investment stock and flow of a particular sector.

The major reform proposals include significantly decreased economic footprint of the public sector, changes in structure and rates of taxation (tax rationalization), government interference limited to regulation (e.g. eliminating government-set pricing), and various legislative and administrative changes that facilitate private sector, among others.

As a guide for policy makers, a five-year investment plan for each sector has been proposed, with quantified investment estimates required for transformation of these sectors so that they may perform optimally, contributing their maximum to the domestic economy. Importantly, the reform measures proposed in this document are meant to complement and accelerate the current growth momentum in the economy. Accordingly, as GDP growth accelerates, we expect a change in important economic fundamentals.

Based on the rigorous analysis carried out and identification of the main roadblocks in terms of sectoral performance, our estimates suggest that the required investment to achieve the targets in these sectors comes to around PKR 18.5 trillion. The multiplier effect of the investment spread over five years, positing positive spillovers for overall economic activity, is estimated at PKR 11.1 trillion. Beyond the five years, the multiplier effects would keep contributing positively to overall economic activity. This investment does not require new money creation; growth in M2 which has expanded 167 percent between FY18 and 10MFY26 will provide the necessary liquidity, while fiscal consolidation will progressively free up private sector credit, which has been crowded out by rising public sector borrowing over the same period.

The funding sources of this investment have been identified as savings through rationalizing PSDP, savings from rationalizing current expenses, lower aggregate credit uptake by the public sector (thus freeing financial resources for private sector), additional public sector revenue from lower taxation and tax rationalization, the multiplier effect of reforms that enhances private sector investment, and incentives like the Build, Operate and Transfer (BOT) model through Public-Private Partnerships (PPP).

EPBD projects Pakistan's GDP to grow from $452 billion in FY26 to $688 billion by FY31, contingent on full implementation of the proposed reforms and a broadly favorable global environment. Achieving this trajectory requires raising the investment-to-GDP ratio from the current 14 percent to approximately 25 percent. The growth strategy is anchored around six drivers: a well-functioning market economy, sustained investment, a competitive business environment, technology and innovation, export expansion, and human capital development. These drivers are not treated in isolation; they form an integrated reform logic that runs through every sectoral chapter of this plan.

Pakistan's growth ambition, however, confronts a set of well-documented structural impediments that must be addressed head-on. Energy costs, currently

exceeding 12 cents per kWh, render Pakistani industry uncompetitive relative to regional peers and act as a direct tax on production. Compounding this are high interest rates, distortionary taxation, policy inconsistency, low technology adoption, limited access to affordable credit for productive businesses, costly raw materials, inadequate trade infrastructure, and underutilized trade agreements that have not been systematically reviewed or renegotiated. Together, these barriers have suppressed private investment, constrained industrial upgrading, and kept Pakistan's export base narrow and low value-added. Addressing them is not a secondary consideration, it is the precondition for any credible growth scenario.

Pakistan's structural trade deficit underscores the urgent need for a decisive shift towards an export-led growth model. The Plan's export strategy rests on eight interlocking pillars: effective trade diplomacy, enhanced competitiveness through taxation and technology reform, provision of raw materials at zero tariffs, trade deficit reduction, institutional support and incentivization for exporters (including special credit arrangements, R&D subsidies, and tax relief for SEZs and EPZs), energy cost rationalization to lower the cost of doing business, and human resource development. To accelerate export growth, the Plan prioritizes diversification of products and markets, regular renegotiation of FTAs and PTAs, targeted engagement with 25 high trade deficit countries, and reduction of the regulatory burden through Ease of Doing Business reforms. Under the high-growth scenario, goods exports are projected to rise from USD 32 billion in FY26 to USD 78 billion by FY31, services exports from USD 10 billion to USD 33 billion, and workers' remittances from USD 40 billion to USD 60 billion, narrowing the trade balance to zero and turning the current account positive at 5% of GDP.

Central to the Plan's export-led growth strategy is the identification and prioritization of high-impact sectors with the greatest capacity to generate foreign exchange, create employment, and scale rapidly within the Plan period. These sectors have been selected on the basis of their demonstrated export growth trajectories, untapped productive capacity, and strategic importance in global markets. Targeted interventions in these sectors, spanning energy cost relief, taxation reform, and institutional support, are designed to unlock their full export potential and drive Pakistan's transition from a narrow, low value-added export base to a diversified, high-growth one.

Pakistan's Five-Year Shadow Development Plan is built on four interlocking convictions: that growth must be balanced, people and business friendly, and that its ultimate measure must be poverty reduction. A plan that grows the economy while leaving the poor behind is not success; it is a missed opportunity. Equally, a plan that champions the poor without creating conditions for private enterprise to flourish will find itself without the resources to deliver on its promises. This Plan places the private sector and the citizen at the same table, recognizing that jobs, real incomes, and business competitiveness are not competing priorities but mutually reinforcing ones. Our intent is not to compete with the government but to complement it, this is an independently prepared, evidence-based framework offered in a spirit of constructive engagement, to fill a void that has persisted for too long in Pakistan's policy landscape. This document argues (and proposes) that immediate policy measures are required to set Pakistan’s economy on a growth trajectory exceeding six percent, and to cure the perennial structural issues that have afflicted Pakistan’s economic performance since decades.

An important disclaimer is in the offing here. This document, especially its calculations, were prepared before the eruption of hostilities between Iran, Israel and the USA. Given the considerable amount of uncertainty that has been unleashed due to the conflict, it is expected that some of the quantified numbers may diverge from the calculated numbers. For example, the investment schedule may be pushed by a quarter or two (or even more) given the fiscal constraints arising out of the war. However, the reform suggestions as well as quantified investment estimates remain the same.

CHAPTER 1

Introduction: Methodology and Outlay of the Document

Pakistan's economy has historically gone through significant turbulence, with some years of high growth often followed by years of low growth. The uneven growth trajectory has persistently undermined Pakistan's growth potential. As the economy gradually recovers from yet another bout of low GDP growth and other pressing issues (low job creation resulting in high unemployment, high population growth, low investment and savings to GDP ratio, stagnant or slow pace of export growth, low FDI, persistent fiscal deficits, etc.) reforming the economy for the purpose of sustained GDP growth is imperative.

A query regarding the need for this particular document may arise, i.e., why this five-year Plan when there are several at the Ministry of Planning level? Briefly put, the already existing plans are usually heavy on macroeconomic projections but lack a deep diagnosis of key economic sectors and how sectoral issues affect the economy. Also, the majority of such analyses occur in isolation and in disparate settings, and often concentrate on a few chosen sectors, like Power and Oil & Gas, but tend to leave out the others. Importantly, majority of these diagnostics lack any calculation of required quantum of investment to cater for its most critical shortcomings, along with expected benefits accruing to the economy via an investment multiplier. This document addresses all these aspects. Its uniqueness lies not only in pointing out the administrative and regulatory reforms needed at both macro and micro level but also in calculating investment required to render critical standards globally competitive. Additionally, and importantly, the investment multiplier is also used to calculate the spillovers of these investments in the first five years. It is based upon the already well-established studies of Pakistan's economy and the quantum of spillovers of investment. This study considers an average multiplier number of 0.6, between the lowest and highest calculated values of multipliers.

It is in this context, twenty-one sectors of the economy were analyzed in order to bring out the issues plaguing their optimum performance and to propose critically needed reforms. All these are significant to various degrees in terms of their socio-economic importance and economic footprint. The following is a brief summary of the research effort as well as an explanation of the methodology used while compiling reform proposals.

The chapters start with a quick glance of the sector. Its various facets and its performance are reflected in stated data, which includes both the domestic as well as global contextual standing. This is followed by detailed analysis of the issues as well as proposed reform framework/suggestions, along with the required investment (if any) and determination of the concerned institutions that would lead the push for reforms.

The analysis was carried out in context of the following:

a. Policy and Regulatory matters
b. Access to Finance
c. Technology Adoption
d. Human Resource related Issues
e. Market Access and Development
f. Tax structure

Based on these criteria, both the short-term and the long-term factors that negatively affect the optimum performance of sectors in question were examined.

Suffice to say, the issues identified were both of micro and macro level, ranging from administrative matters to relatively critical matters like absence of price incentives and paucity of Research and Development (R&D). These were, accordingly, separated by the above stated categories. Additionally, sectors were bifurcated by categories, starting with 'High Priority' or 'High Impact' sectors. The bifurcation was carried out in context of the impact individual sectors have on domestic economy, variables like employment and investment, external factors and their importance in overall global context. It is important to clarify here that the sectors not marked as 'High Priority' are not of any less in importance; rather, as explained, the bifurcation is more in context of the expected size of the positive spillovers of the economy and prospective advantages accruing to domestic plus external economic front in lieu of proposed reforms.

While analyzing the issues and their proposed solutions, the following were observed:

1. The most pressing concerns were given priority. Given that there could be hundreds of issues that affect a sector, the most critical ones were given priority since solving these would, in most cases, lead to solving the minor issues as well
2. A lot of the identified issues overlapped with each other. Care was taken not to repeat them in separate points
3. Differentiating between stock of investment already earmarked under public sector investment and the estimated investment required besides the stock (stock vs. flow)
4. Dividing the required investment over the period of coming five years
5. Taking into account perspective of the public sector as well as the private sector in order to arrive at a realistic picture of the sector and its problems

Arguably, the major challenge in terms of this whole exercise was to estimate the required investment in the sector. There are two major avenues of investment: public sector and private sector. The former is reflected in the Public Sector Development Program (PSDP) and Annual Development Program (ADP) run by both the federal and provincial governments. Only the federal PSDPs were considered since, of all the development expenses, it is the most significant one and applicable across all the country rather than limited to the capital or to a province.

The five-year federal PSDP contains the details of all the development projects in last five years and their total outlay. This represents the stock of total investment. For the sectors that were considered for this study, the stock of already earmarked investments under PSDP were taken into account. The quantum of investment stated in the document represents what would be required to reach the estimated major macro targets in the next five fiscal years. Further, in the tables that divide proposed investment schedule over five years, it is this estimate rather than the stock that is considered for the purpose of calculating average required investment per year. Not only is the quantum of required investment calculated, but the sources for financing this investment are also mentioned.

These proposed investments will act as a complement to the existing investment and GDP growth, estimated to propel GDP growth rate 1-1.5 percent in the short run, and to 2 percent or above, in the long run.

The financing of this investment is grounded in existing macroeconomic realities rather than assumptions of new resource mobilization. Pakistan's broad money supply (M2) has expanded by 167 percent between FY18 and 10MFY26, and sustained GDP growth over the Plan period will continue to generate the liquidity needed to absorb this investment. Simultaneously, fiscal consolidation will reduce the public sector's disproportionate claim on domestic credit, which has risen from 65 percent of total credit stock in 2018 to 81 percent by 2026, progressively releasing capacity for private sector uptake and ensuring that the financial system can effectively intermediate the investment required to meet this Plan's targets.

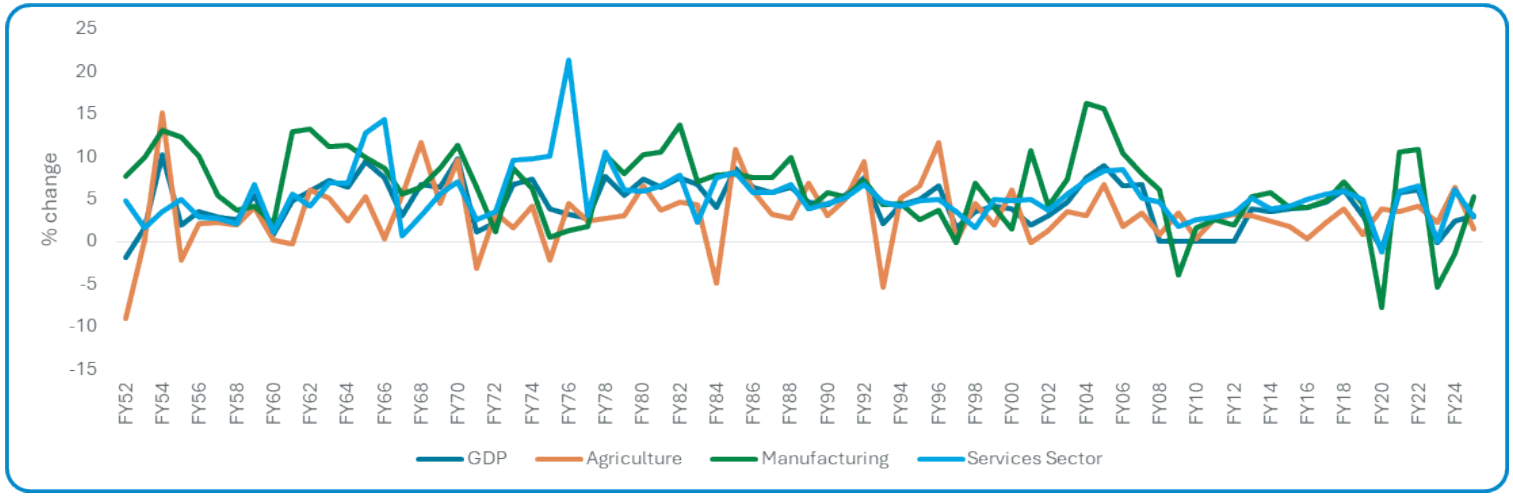
In terms of the scheme of this plan, this introductory section is followed by a brief analysis of historical evolution of Pakistan's economy that presents its growth, development, pressing issues and related themes over the decades. This is then followed by a brief discussion on drivers of growth and export-led strategy which is then followed by detailed Sectoral analysis/diagnostic, followed in the end by a discussion on savings and employment creation along with conclusion.

CHAPTER 2

Historical Evolution and Main Features of Pakistan's Economy

Pakistan's economic journey has been one filled with amiable growth as well as precipitous declines. Beginning from a very weak base at the time of independence, it has come a long way in terms of having a diverse economy, albeit one that has persistently performed below its potential. The story is captured well in Figure-1, which shows the trajectory of real GDP growth over time (along with growth in Agriculture, Industry and Services sectors), clearly reflecting the tumultuous ups and downs in terms of long-term economic performance.

Figure 1: Growth of Real GDP, Agriculture, Industry and Services: *FY 51-52 to FY 24-25*



Source: EPBDT, using PBS data on National Accounts (FC basis)

While specific time periods like the early 1960s and first half of 2000's see a healthy GDP growth, they tend to be exceptions rather than the norm, with poor average GDP growth in more than seven decades.

In terms of per capita income, it does not come as a surprise that its growth

follows the same uneven growth path as that of real GDP growth, as depicted in Figure 2[1].

In this context, it is important to mention that long-term growth and increase in per capita income is critically dependent upon the aggregate productivity (or Total Factor Productivity, TFP) in an economy. In Pakistan's case, TFP has been poor, lags in terms of even the regional countries, and has not been commensurate with higher growth requirements.

Similarly, at least since the Keynesian revolution in economics, aggregate investment levels have been one of the most critically examined indicators in terms of GDP growth. The Chinese economic miracle, for example, has a significant imprint of a high investment to GDP ratio over the decades (between 35-40% per annum). Unfortunately, on this count too, Pakistan fares poorly as its INV/GDP ratio is one of the lowest in the world and in the South Asian region. The accompanying graph in Figure 3 (on the right) provides the comparative levels of this indicator in the South Asian region, showing Pakistan lying at the bottom.

This situation persists despite a healthy dose of investment per annum in the form of Public Sector Development Program (PSDP) and substantial inflows of foreign aid that form a considerable portion of the PSDPs of both the federal and provincial governments. Pakistan's planning machinery dates to early 1950s, conceived out of the 'Colombo Plan' and tasked mainly with designing 5-year growth plans. Additionally, the planning wings at federal and provincial levels also have the yearly Annual Plans as their tasks. The PSDP expenses have helped Pakistan meet, to an extent, its socio-economic needs over time whether its hard infrastructure or social sector prerogatives like provision of water and sanitation services, etc[2]. Till the present, Pakistan has had thirteen Five-Year Plans in total, with the latest one for the period of 2024-2029. In between, Pakistan has managed to build an impressive array of infrastructure all across the country, reflected in the numbers provided in the Table 1.

Figure 2: Per Capita Income -*1960 to 2024*

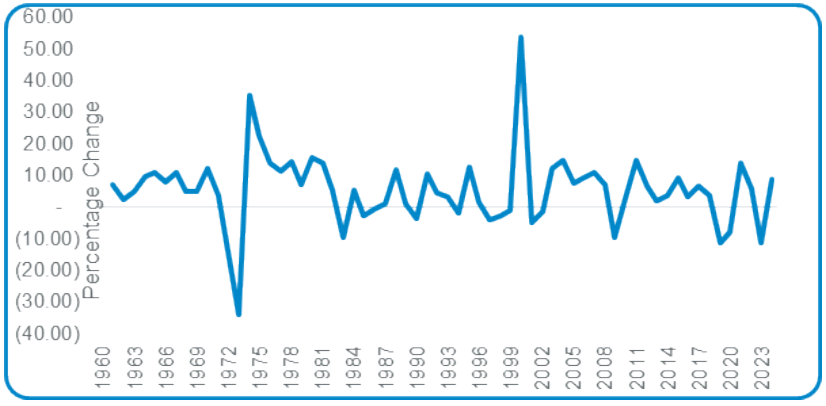
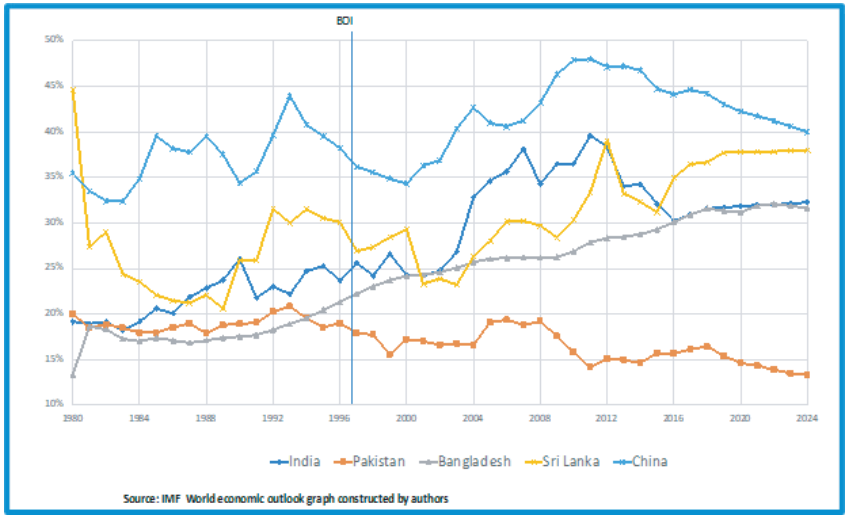


Figure 3: Comparison of Investment/GDP ratio of selected countries



[1] *Source: World Bank data base, available at https://data.worldbank.org/indicator/NY.GDP.PCAP.KD.ZG?locations=PK*

[2] *It is, though, also an unfortunate fact that a portion of development outlays has been used exclusively for 'pork-barrel' politics, mainly in the form of development grants to MNAs and MPAs. There is widespread agreement that such allocations are a form of financial corruption for buying political favors*

Table 1: Selected Infrastructure Indicators *(1970-2025)*

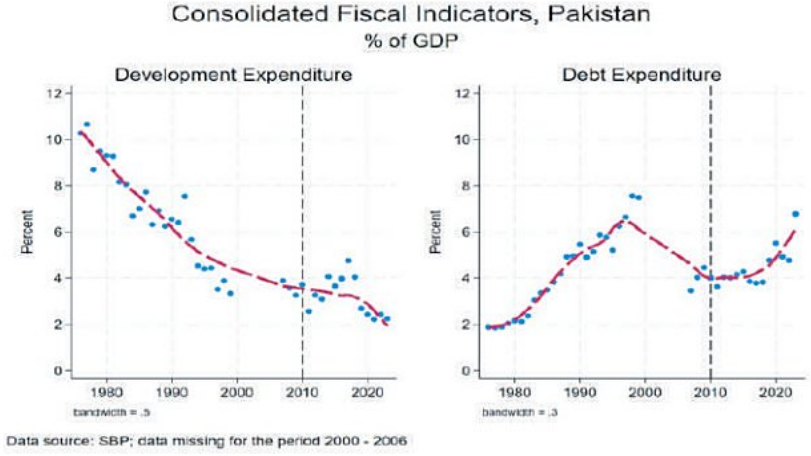
Infrastructure	Early 1970s	2025	Percentage Change
Gas Production (MMBtu)	165	806	388
Installed Electricity Capacity (MW)	1,300	46,000	3438
Roads (000s KM)	70.5	501.2	611
Post Offices (in thousands)	7	10	43
Telephones (in million)	0.1	2.5	2400
Primary Schools (in thousands)	88.8	166	87
High School (in thousands)	5.4	41.3	665
Hospitals	380	1,696	346

However, the efficacy and productivity of these expenditures remain debatable. Moreover, as the figure 4 depicts, development expenses as percentage of GDP have been on a downward trajectory since at least the 1980s, trends that we see continuing till this day.

Figure 4 also reflects the downward trajectory of development expenses in consonance with the ever-rising expenses of the public sector on its accumulated debt (as percentage of GDP). Although the causation of the relation may be disputed, there is no doubt about the correlation between the two: rising costs of debt management have crowded out expenses on development priorities.

The rising costs of servicing total public debt (domestic and foreign), in turn, reflects the growing expenses of running a public sector that has had a major presence in terms of its economic footprint since the very beginning. This footprint has seen ebbs and flows over time as economic activity during high GDP growth period tends to be driven by private sector (and vice versa). The early 1970s, for example, saw the most widespread public footprint in economic activities in lieu of the large-scale 'nationalization' of private economic assets. The exact magnitude and spillovers of public sector in economic activity is a matter of debate. Estimates by Haq and Rafi (2020), for example, put the footprint of the public sector at 60 percent (at least) of total economic activity[4]. Public sector's footprint on the economy comes via a setup that includes institutions aimed at both development and non-development work (both at federal and provincial level). A prominent part of this setup is the plethora of State Owned Entities (SOEs) that dot the economic landscape, spanning eight sectors of the economy. The significant effects of public sector on economic activities mirrors the

Figure 4: Development and Debt expenditure over the years



[4] *'Estimating the footprint of Government on the economy' (2020), Nadeem Haq and Raja Rafi. There is nothing to suggest that the footprint has decreased since the publication of this paper*

decision-making power enjoyed by the public sector employees (especially the management tier) despite it being a small part of the overall active labor force in Pakistan (estimated to be 83.1 million as PBS Labor Force Survey, 2024). The composition of federal government employees reflects table 2[5]. Of the total of 133 SOEs, 88 are classified as 'Commercial' while 45 are classified as 'Non-Commercial' (aside from their subsidiaries)[6]. In aggregate, major portion of SOEs would not have survived without official handouts (grants and subsidies). According to Annual Aggregate Report on SOEs FY25, total debt is PKR 9.57 trillion up from 9.19 trillion in FY24, increasing by 4% YoY.

Perhaps no sector signifies the financial and administrative struggles (and significant debt burden on government treasury) more than the Power sector. Since 1958 (when WAPDA was founded) till early 1990s, the power sector was exclusively the public sector's domain. Despite 'unbundling' and participation of private sector (mainly in the form of IPPs), the public sector still retains a huge footprint through its more than two dozen entities. However, the end result of all this is a sector marred with inefficiencies and huge liabilities, one that has been a major drain on the national treasury. Estimates by Mehmood (2025) suggest that between FY 1996 and FY 2024, the federal government dished out subsidies and other financial support exceeding Rs. 17 trillion[7].

Expenses like these have meant that the costs have ballooned over time, amply reflected by the growth of debts and liabilities over time (reflected in figure 5), now exceeding Rs. 80 trillion in total[8]. As shown in Figure 3 (above), the cost of servicing this debt (as percentage of GDP) has risen significantly with time.

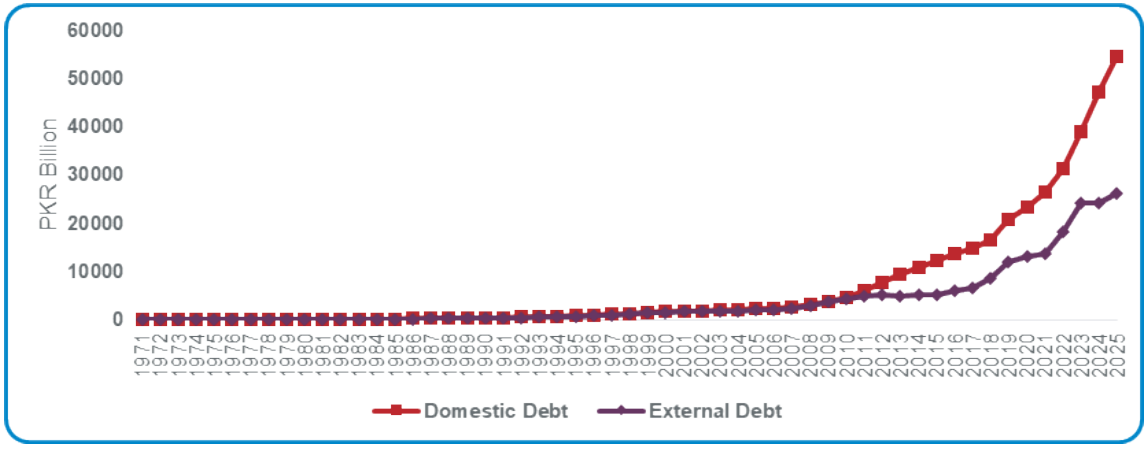
Table 2: Table 2 Percentage Change in Actual Working Strength *(YoY)*

Basic Scale	2022–2023	2021–2022	% Change
22	91	82	10.97%
21	394	392	0.51%
20	1125	1140	-1.32%
19	3035	2916	4.08%
18	7920	7349	7.77%
17	14446	14089	2.53%
16	30003	31191	-3.52%
15	6708	6100	9.97%
14	23390	22100	5.84%
13	2730	2907	-6.09%
12	2654	3300	-19.57%
11	26983	26841	0.53%
10	3889	3620	7.43%
9	38247	41704	-8.28%
8	15090	11946	26.32%
7	59306	60699	-2.29%
6	69315	66019	4.99%
(1–5)	285169	272959	4.47%
Total	**590585**	**575354**	**2.65%**

Source: 'Annual Statistical Bulletin of Federal Government Employees for 2022-23

[5] Source: Establishment Division
[6] Source: Finance Division Annual Reports on SOEs, various editions
[7] Mehmood, Shahid (2025), 'The transition that (almost) bankrupted a nation-Six decades of power sector management in Pakistan', Social Science Research Network (SSRN)
[8] Source: EPBD, compiled from SBP data and various reports of Finance Division. At present, more than 65 percent of debt and liabilities is domestic debt. Moreover, the 'current' or 'non-development' expense has traditionally consumed 85-90 percent of total annual expense of the federal government

Figure 5: Trend in Domestic & External Debt, as of June 2025

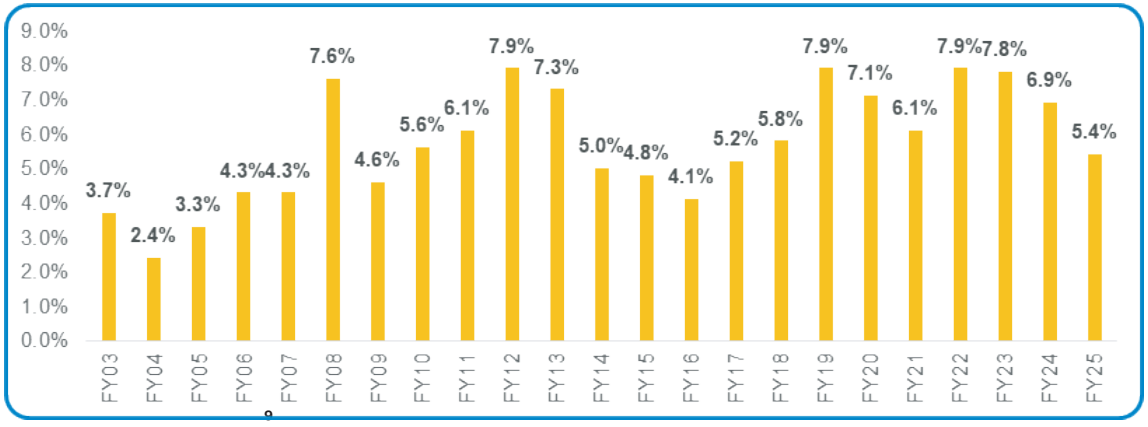


The burden of overall debt is further reflected in Figure 6 that shows increasing ratio of fiscal deficit to GDP between FY 02 and FY 25.

Overall, a general picture of public sector resources and its flow is neatly captured by Figure 14 available in Annex – A.

External/foreign aid has been another prominent feature of Pakistan's economic landscape since its founding. Given the paucity of resources (capital and technical resources), Pakistan had no other alternative other than to seek foreign help. Over time, though, foreign aid became a critical component of Pakistan's economic management, helping to avert Current Account (CA) and payment related crisis, finance a significant portion of PSDPs at federal and provincial level and run multitude of projects around the country.

Figure 6: Fiscal Deficit *(% GDP)*



Source: EPBDT, calculated from Finance Division and SBP data

Between FY 50-51 and FY 23-24, Pakistan received more than $200 billion in foreign aid commitments (loans and grants), of which an estimated $160 billion plus have materialized[10]. The exact utilization of loans by source remains a mystery, with only scattered, piecemeal data on utilization

[9] *Source: EPBD*
[10] *Haq, Mehmood and Shabbir et.al (2024), 'Foreign aid, Donors and Consultants', PIDE*

available. Not many research studies exist that have looked at the foreign aid numbers and its effects upon Pakistan's economic performance.

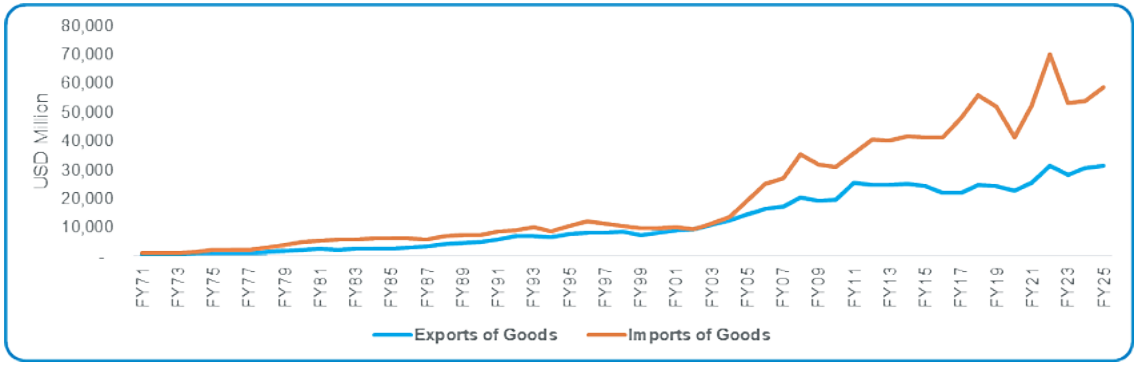
However, a recent study by Haq, Mehmood and Shabbir (2024) gave the most detailed account of this aspect[11]. Using the Milikan-Rostow criterion governing foreign aid, the study found that despite all the inflows, Pakistan fails on all the goals of this criterion and its economy seems to have benefitted little in terms of the materialized foreign aid. In fact, in certain aspects (like inflows minus outflows, 'net inflows') and 'project aid', the non-productive utilization of aid has meant that more dollars flow out from Pakistan than coming in, and loans for projects keep indebting us more. The end result is that despite repaying more than $150 billion in the form of principal and interest on external debt, Pakistan's total external debt and liabilities still stand at $138 billion (of which approximately $105 billion is public debt, or debt due to be paid by the government)[12].

A critical need for foreign aid (mainly commercial loans) arose due to the necessity of meeting persistent trade deficits over time. Of the three main methods of earning dollars for meeting our external payment obligations (FDI, Exports and Remittances), Foreign Direct Investment (FDI) has been the weakest link. This leaves exports and remittances as the go-to sources. Unfortunately, Pakistan's exports have, in lieu of its foreign exchange requirements, performed comparatively poorly, which has led Pakistan to be increasingly reliant on remittances sent by expatriate Pakistanis (more so in the last decade or so). To gauge the poor performance of exports, consider that in 1996, Pakistan's exports were $8.75 billion while Vietnam's stood at $9.5 billion. At present, while Pakistan's exports have barely crossed $30 billion, Vietnam's exports have galloped to more than $360 billion by end of 2025.

Between FY 70-71 and FY 24-25 (i.e., 55 years), Pakistan's total export of goods and services stood at $655 billion, while its imports stood at $1,121 billion, meaning a gap (trade deficit) of almost $467 billion. Even if one were to net this amount against remittances (almost $426 billion in these 55 years), the deficit would still stand at $40.5 billion. Such deficits, in turn, leave no option but to turn to loans as the Current Account (CA) deficit swells[13].

The gap between exports and imports, the trade deficit and remittance adjusted trade deficit are presented in figures 7 & 8.

Figure 7: Imports vs Exports *($ million)*: FY 70-71 to FY 24-25

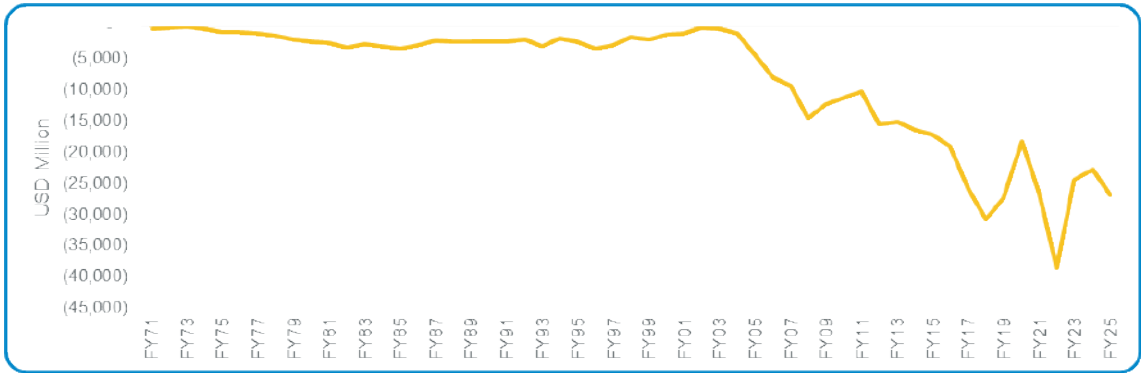


[11] *Haq, Mehmood and Shabbir et.al (2024), 'Foreign aid, Donors and Consultants', PIDE*

[12] *The repayment data and the total debt and liabilities data has been compiled from SBP data and various government publications, specifically Economic Survey (various editions)*

[13] *Source: EPBD, using SBP data*

Figure 8: Trade Balance *($ million)*:
FY 70-71 to FY 24-25



Despite some periods of high GDP growth and a substantial presence of anti-poverty programs since at least the 1950s, poverty and inequality have remained entrenched. The only sustained decline in poverty rates (by Head Count Method) has been the first two decades of the 21st century, whereby poverty rates declined from 64.3 percent in 2001 to around 26 percent.[14] However, poverty still remains vulnerable to economic shocks, as witnessed over the last couple of years where stagflationary shock to the economy has led to poverty rates climbing above 40 percent, thus undoing two decades of gradual decline.[15] In essence, both these measures have witnessed declines in specific years but overall, they have remained a major economic issue despite a significant amount of public resources being spent on anti-poverty measures.[16]

A good reflection of the shortcomings of the uneven GDP growth, public sector investment and resulting issues like poverty and inequality is Pakistan's persistently low score on Human Development Index (HDI), whereby the country finds itself at the bottom of this measure.

Table 3: Human Development Indicators (HDI): *Pakistan, 1990-2024*

Region	1990	1995	2000	2005	2010	2015	2017	2018	2019	2024
Total	**0.402**	**0.427**	**0.448**	**0.486**	**0.513**	**0.536**	**0.549**	**0.552**	**0.558**	**0.543**
AJK	0.467	0.502	0.532	0.583	0.606	0.606	0.608	0.605	0.612	0.590
Baluchistan	0.382	0.405	0.424	0.459	0.454	0.455	0.467	0.469	0.475	0.412
FATA	0.377	0.398	0.416	0.449	0.464	0.46	0.463	0.459	0.465	0.430
GB	0.424	0.449	0.469	0.505	0.522	0.553	0.578	0.585	0.592	0.550
Islamabad	0.508	0.54	0.568	0.619	0.682	0.69	0.68	0.67	0.677	0.70
KP	0.395	0.418	0.437	0.472	0.503	0.516	0.522	0.521	0.527	0.490
Punjab	0.391	0.414	0.433	0.469	0.51	0.542	0.556	0.558	0.564	0.532
Sindh	0.388	0.412	0.433	0.472	0.505	0.522	0.527	0.526	0.532	0.483

[14] *'Pakistan's poverty trajectory: Progress, peril and the path forward' (2025), Mortiz Meyer and Christine Weiser, World Bank Blogs*

[15] *Source: World Bank*

[16] *Both the federal and provincial governments run a large anti-poverty set up that includes institutions like BISP, Zakat & Ushar, and other such measures. As per the SBP Annual Report for FY 23-24, the total expense on anti-poverty measures were in excess of Rs. 5 trillion*

Table 3 gives a good indication of Pakistan's poor record on this count as well as stagnant human development.[17]
Pakistan's private sector has mirrored the country's broader GDP trajectory, periods of strong growth punctuated by sharp setbacks. The 1950s, 60s, and 2000s were largely prosperous decades for private enterprise. The gravest disruption came in the 1970s, when the PPP government's large-scale nationalization policy dealt the private sector its worst historical blow, with economic repercussions lasting well beyond that era.

Despite this, the private sector's potential remains significant. The World Bank estimates it holds an export potential of $88 billion, annual FDI potential of $2.8 billion, and the capacity to push GDP growth to 7–8%, provided the right regulatory environment is in place.[18]

The present times, unfortunately, have been one of the toughest for Pakistan's private sector. Since at least a decade, conditions have become very challenging for the private sector due to various factors like high input prices (specifically energy), excessive burden of regulations, poor infrastructure, persistent issues in profit repatriation, and worsening law and order, etc. A good indicator of these struggles comes in the form of a large number of Multinational Corporations (MNCs) exiting Pakistan in the first quarter of this century. Pharmaceutical industry of Pakistan, for example, had forty-two MNCs in 2000; at present, there are hardly ten, with others either closing down their shop altogether or merging it with domestic firms who bought major stakes in the firm.[19] Similarly, Pakistan's textile industry has had a very tough time of late. In the last couple of years, more than 150 textile mills have closed, a significant development in terms of an industry that employee's largest amount of industrial labor and has provided 60 percent of annual exports over the decades.

What follows is a brief summary of private sector in Pakistan's economy and its main attributes/issues.

Figure 9: Banking credit to the private sector *(%GDP)*

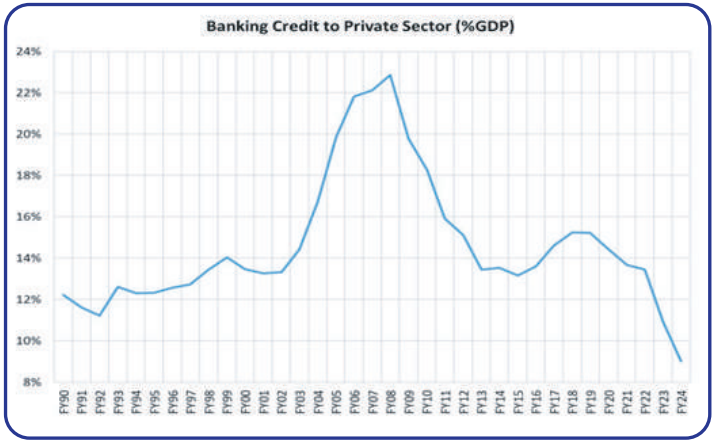
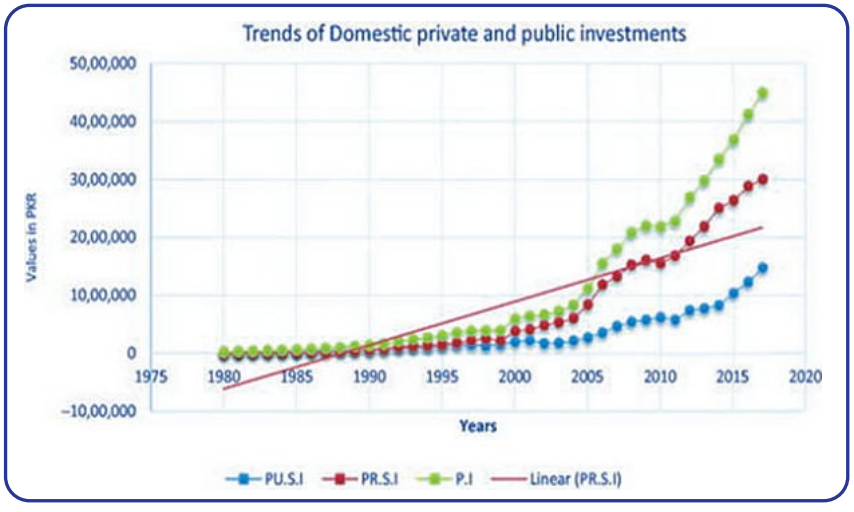


Figure 10: Trends of domestic public and private investment



[17] *'Source: Global Data Lab. The table is reproduced from Haq, Mehmood and Shabbir et.al (2024), 'Foreign aid, Donors and Consultants', PIDE*

[18] *' Transforming Pakistan's private sector' (2023), Policy Note 3, World Bank Group*

[19] *Source: Pharmaceutical Industry Report (2025), Shahid Mehmood*

A major issue faced by the private sector in Pakistan is the availability of credit. Traditionally, 70 percent or more of the deposits of the commercial banks are lent to the public sector, which tends to crowd out the private sector's demand for credit. This makes it difficult for the private sector as its various expansion/investment plans and operations are affected. IMF, for example, states that "Persistently high fiscal deficits, coupled with the impact of recent external shocks, has had significant implications for the sovereign-bank nexus in Pakistan. With limited access to external funding, the government has increasingly relied on the banking sector for financing and, as a result, banks' holdings of domestic government debt has surged to around 60 percent of their assets (more than thrice the average for Emerging Market Economies, EMEs)."[20] A FY 24 marks the lowest point (around 7 percent) in the last twenty-six years of private sector credit as percentage of GDP. Aside from the public sector crowding out phenomenon, the gradual decline is also attributed to the declining growth rates and closure or relocation to other countries of both domestic and MNC businesses within the country, which has led to lower demand in terms of aggregate private sector investment. Till early 2000s, the gap between public and private investment remained minuscule. However, that gap started to open up after that, and by now the quantum of public investment is far ahead of private investment.[21]

As mentioned above, private sector employs major portion of the labor force in Pakistan. Majority are employed in agriculture and related sectors, followed by social services, retail trade and construction. The distribution of the working force by sectors is presented in table 4.[22]

Table 4: Distribution of Employed Persons by Major Industry Divisions *(19th ICLS) (%)*, 2024–25

Major Industry Divisions	Total	Male	Female
Total	100.0	100.0	100.0
Agriculture, forestry & fishing	33.1	24.5	61.4
Manufacturing	14.8	14.8	14.7
Construction	9.9	12.9	0.1
Wholesale & retail trade	16.0	20.1	2.3
Transport/storage & communication	6.6	8.5	0.6
Community/social & personal services	17.9	17.2	20.3
*Others	1.6	1.9	0.5

**Others (including mining & quarrying, electricity, gas & water and financial insurance activities)*

[20] *Source: IMF, October 202, available at https://www.elibrary.imf.org/view/journals/002/2024/311/article-A003-en.xml*

[21] *Graph of private sector credit to GDP ratio based on SBP data, while the graph for public vs. private sector investment taken from 'Effect of domestic and foreign private investment on economic growth of Pakistan' (2019)*

[22] *Source: Labor Force Survey (LFS), Govt. of Pakistan*

The total valuation and information on the private sector, though, differs by sources. A good account of private sector's business value and their business interests is provided in the 'Wealth perception Report' (2025), published by EPBD.[23] The following table consists of groups and their market valuations based on data in the said report.

Table 5: Pakistan's Top 20 Private Sector businesses by Valuation and Equity

Name	Total Market Valuation ($ million)	Group Equity Value ($ million)
Fauji Foundation	5,904	2,520
Bestway/UBL	4,513	3,620
Yunus Brothers/Lucky Group	2,591	1,887
Nishat Group/MCB	2,399	920
Engro Holdings	2,390	734
Riyadh Edress	2,386	840
Arif Habib Group	1,578	601
Sultan Ali Allana	1,565	954
Attock Group	1,350	840
British American Tobacco	1,245	1,183
Lakson Group	1,203	727
House of Habib	1,176	840
Allied Bank	1,120	1,026
Atlas Honda	774	388
Unilever Pakistan	727	691
Systems Limited	726	254
Bank Al Habib	743	240
Ismail Industries	589	507
Kohinoor Maple Leaf	544	357
JS Group	493	282

In summary, Pakistan has come a long way in terms of its economic footprint and performance. There is a large public sector, and over the decades there has been heavy investment in various sorts of infrastructure. At the moment, SBP puts the size of the economy at around $452 billion. It has a significant resource base, led by 250 million population of which around 60% is below 30 years of age, thus primed for a 'demographic divided.

However, despite much promise, Pakistan's economy has had a topsy-turvy path to growth with significant ups and downs. The path to sustainable growth and continuous rise in per capita income remains elusive, with the economy beset with issues that have plagued its performance since long. The challenges come from almost all fronts, including public sector footprint, legal, regulatory and infrastructure related challenges, etc. The private sector has shown remarkable resilience and growth despite these odds but could have done substantially better if the conditions had been opportune and conducive.

This report brings to light the various challenges afflicting the economy in terms of specific, important sectors, and proposes solutions for setting Pakistan on a high growth trajectory and utilizing its potential.

[23] *'Pakistan's Top 40 Public and Private Conglomerates' (2025), EPBDT*

CHAPTER 3

Growth Strategy: Drivers, Projections, and the Export-Led Strategy

After years of stop-and-go growth constrained by structural imbalances; persistent fiscal deficits, a narrow export base, energy sector distortions, and chronic underinvestment in productive capacity, the macroeconomic conditions are painstakingly stabilized. However, stabilization alone is not a strategy. This chapter sets out the foundation for a hard-won economic recovery into durable, broad-based growth. EBPD has projected for the Pakistan's GDP growth to increase from over $452 billion to $688 billion by FY31, if its proposed reforms and sectoral interventions are implemented fully with favorable global environment.

The drivers of growth listed below are the denominators of sectoral analysis detailed in the subsequent section of this document. Moreover, this analysis keeps export-led growth as a centerpiece of this five-year development plan. The overarching objective is not merely to achieve a target growth rate, but to alter the quality and composition of growth — so that it generates employment, strengthens the balance of payments, deepens industrial capability, and raises living standards in a manner that is fiscally sustainable and resilient to external shocks.

The drivers that underpin the reform strategy include:

1. **Well-functioning Market Economy:** An economy where resources are channeled toward sectors and businesses that generate the largest economic returns. The government's role in business is minimal, limited to regulation and the provision of an enabling environment for doing business. Excessive presence of the state in business affairs stifles private investment, enterprise and innovation.
2. **Investment:** Investment is the engine of economic growth. Without sustained capital formation — public and private — productivity stagnates, industries fail to scale, and job creation falls short of the economy's needs. Pakistan's current investment-to-GDP rate stands at 14 percent, significantly low to facilitate growth. As per EPBD's estimations, it should be around 25 percent of GDP to attain 8.5% growth in the next five years. Investment therefore sits at the center of the sectoral analysis and policy priorities set out in this plan. Notably, the investment estimates, valued at PKR 18.5 trillion, are aimed at providing level playing field to domestic businesses for each sector.
3. **Competitive Business Environment:** High energy costs, heavy and cumbersome taxation, regulatory overload, high policy rate, and inconsistent policies are crippling business activity and stifling growth. Cutting energy costs to 7 cents/kwh via eliminating price distortions, revising expensive IPP contracts, sub-localizing and liberalizing the sector for private sector participation on market-based principles is one of the proposed interventions. Similarly, tax rationalization and simplification, alongside the elimination of regulatory sludge, form a core pillar of this plan's competitiveness agenda. In the same vein, improving access to finance, particularly for key productive sectors, is identified as a critical enabler of growth.
4. **Technology and Innovation:** Technology and innovation are increasingly the defining determinants of long-run economic growth.

For Pakistan, the imperative is clear: a labor-abundant economy can only sustain rising wages and living standards if productivity is driven by technological upgrading rather than the mere expansion of inputs. This plan therefore treats technology not as a concern confined to the IT industry, but as a horizontal driver that must permeate every pillar of the growth strategy — from modernizing industrial processes and digitizing financial services to deploying precision agriculture. Expanding digital infrastructure, investing in technical skills, and fostering public-private collaboration in innovation are among the key interventions elaborated in the chapters that follow.

5. **Exports:** Exports remain one of the most reliable drivers of sustained economic growth, enabling economies to expand beyond the limits of domestic demand, earn foreign exchange, create productive employment, and raise competitiveness through integration with global markets. For Pakistan, a durable growth strategy requires effective trade diplomacy (specifically targeting high-deficit countries), improving human capital, rationalizing energy costs (specified earlier), rationalizing taxation, and reconsidering Export Facilitation Scheme (EFS) to ensure domestic raw materials industry is not being punished
6. **Human Capital:** Human capital is a core driver of sustainable growth, shaping workforce productivity, incomes, and competitiveness. For Pakistan, long-term progress requires a healthier, better educated, and more skilled population able to meet the demands of a modern economy. This development plan therefore places job creation, training, and skills development at the center of each sector strategy, recognizing that growth must translate into employment opportunities and stronger labor capabilities across the economy.

Export-Led Growth Strategy

Pakistan’s economic trajectory has been characterized by persistent current account deficits, a narrow export base, and recurring balance of payments crises requiring repeated IMF interventions (~25 as of 2026). Pakistan possesses the foundational prerequisites to pursue a similar trajectory: a large labor force, significant agricultural output, and a growing services sector.

Exports address several of Pakistan's most chronic structural weaknesses simultaneously. Foreign exchange earnings relieve persistent current account pressure, participation in global markets compels productivity upgrades, export-oriented industries carry significant employment generation potential, and a broader export base improves fiscal sustainability by widening the tax base. These dynamics are mutually reinforcing export growth supports macroeconomic stability, which in turn attracts investment and further expands productive capacity.

Key Structural Impediments

Pakistan's export performance has been constrained by a well-documented set of structural barriers:

- High energy costs (power at 12cents/kwh and gas at $12/MMBtu), high interest rate, distortionary taxation and policy inconsistency
- Low skilled workers and low technology adoption
- Expensive machinery with limited access and costly raw materials
- Limited access to affordable credit for export-oriented businesses
- Inadequate trade infrastructure, logistics, and port capacity
- Insufficiently strategic engagement with FTAs and PTAs, which have not been regularly reviewed or renegotiated

With an investment-to-GDP ratio of just 14 % and FDI ranging between $2 and $3 billion annually, domestic export finance assumes critical importance. Pakistan’s export finance architecture is constrained by structural distortions that limit its role in driving export expansion and diversification. The Export Finance Scheme (EFS), administered since 1973, remains limited in scope and heavily skewed toward large, incumbent exporters, particularly in low value-added textile segments. It restricts access for new exporters and inhibits the scaling up of existing ones. As a result, credit transmission to higher value-added and non-traditional sectors remains weak.

Projections: Three Scenarios

To develop the export-led growth strategy, it is required to estimate the trends in trade performance over the last decades. To this end, major trade fundamentals are estimated under the National Income Account (NIA) methodology and an alternative way using averages over the long term for calculating future trade related projections. In the case of exports, there are three scenarios that are based on averages derived over the longer term, i.e., FY 1971-72 and FY 2024-25. There are three possibilities in this case-

a. **Worst-case scenario -** These are based on negative export growth rates that usually occur during times of crisis, like Current Account (CA) crisis that are quite frequent, external shocks like oil price jumps and wars, internal shocks like floods or droughts that affect exports (since agricultural produce is a major input in exports). The average comes out to be -6.39 percent. Importantly, though, the decline is rarely continuous, usually lasting a single fiscal year, followed by reasonable recovery rates. To be on the safer side, the average of these recovery rates is taken as +5%.
b. **Best-case scenario -** These take into account highest (positive) percentage changes in exports over the specified period (above 15% year on year), which can be due to different reasons (an external favor like GSP plus or support in War on Terror, government schemes like TERF, etc.). The average is taken in the range of 19-21 percent.
c. **Middle case scenario -** It can be either an average of worst-case and best-case percentages, or we can use decade-wise averages. In this case, the latter is preferred since a decade usually covers the kinds of negative or positive shocks mentioned above, aside from changes at domestic industrial level (like industrial organization). Moreover, since the problems afflicting Pakistan's exports sector have more or less remained the same over the decades, therefore it is logical (and safe) to keep decade-wise averages in perspective. The aggregate average growth over the decades under study comes out to be 8.2 percent.

Historically, both imports and exports tend to move in similar directions, although the exact percentage change is not the same and the effective implementation lag for both tends to differ.

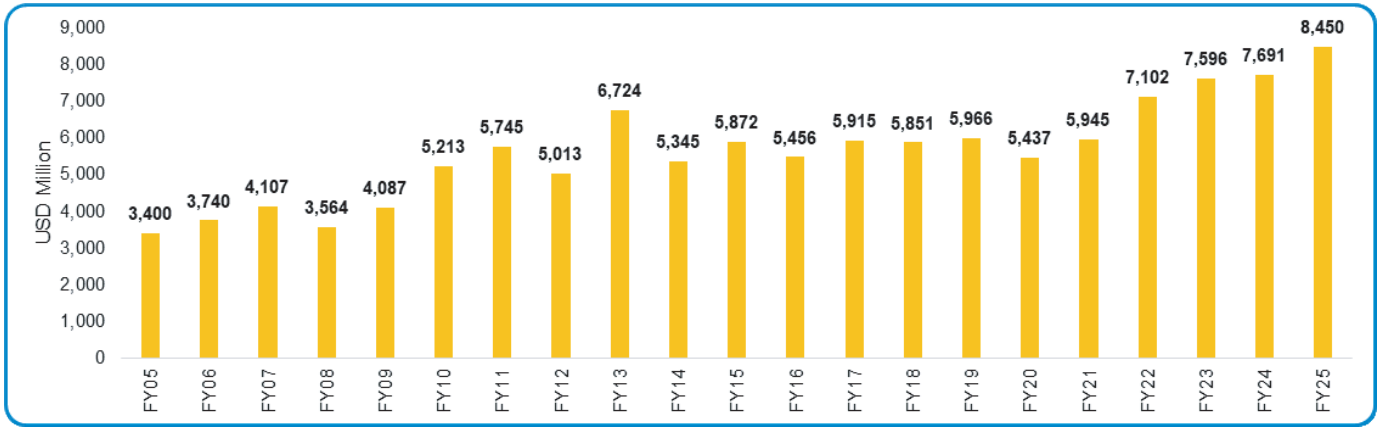
Figure 11: Percentage Change in Exports and Imports, FY94 to FY25

The lower average percentage change in imports over the period in study basically reflects the inelastic nature of imports in comparison to GDP growth rates, i.e., they tend to be less sensitive to changes in GDP growth rates, and their departures from trend is usually not as pronounced as exports (in the long run). For those who have knowledge of Pakistan's economy, this would not come as a surprise, given domestic economy's dependence upon imports (like Industry's dependence upon imported raw material, which does not decline precipitously even when growth rates decline). This is the main reason why higher GDP growth rates tend to lead to higher imports.

An important trend with regards to Imports and Exports is the notable rise in Pakistan's Services exports over the last two decades. Along with the growth in remittances, this has been a welcome addition to Pakistan's trade fortunes as they cover for an increasing portion of imports and have contributed tremendously in staving off CA pressures over the years. In fact, aside from the high tariffs that discourage imports, both of these have helped Pakistan achieve several CA surpluses since last two years.[24]

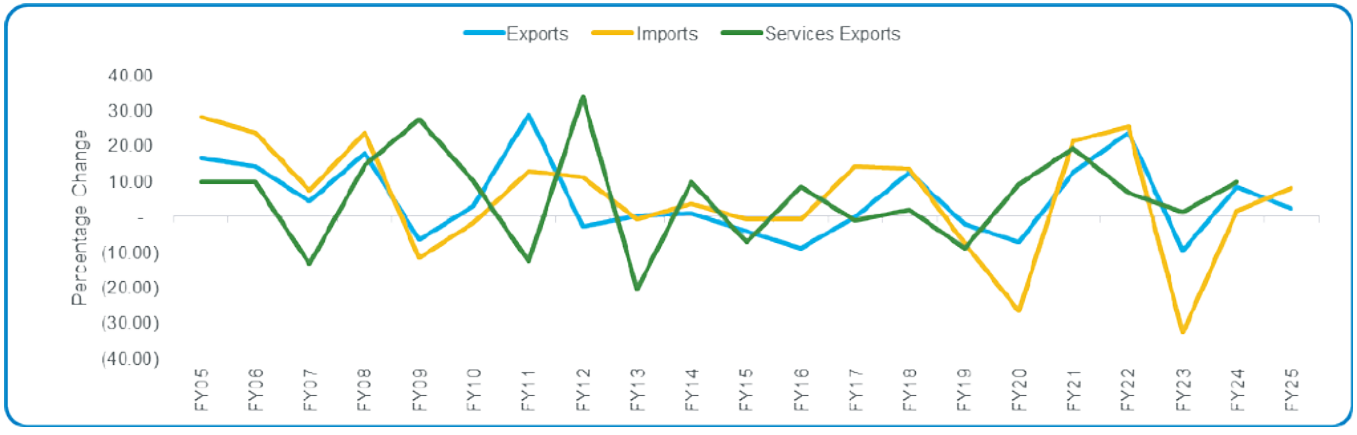
Both of these facts (the significant rise in Services exports and these covering an increasing portion of trade deficits) are reflected in the following figures.

Figure 12: Growth of Pakistan's Services Exports, FY05 to FY25



[24] More critical in this regard is the observation that services exports tend to substitute for Services imports, in contrast to goods exports that tend to propel more goods exports (mainly due to increase in raw material imports). In other words, the relation between goods exports and imports tends to be relatively inelastic, while the relation between services exports and imports tends to exhibit high degree of elasticity, implying high probability of substitution

Figure 13: Percentage Change in Imports, Exports and Services Exports, FY05 to FY25



Keeping the above stated in perspective, the argument made in this 5-Year Plan is that there is good possibility of Pakistan moving towards wiping out trade deficit over the next five years, mainly via the growth in Services exports which offer the highest growth potential.[25]

In a scenario where proposed reforms are implemented in a short time, we argue that a target of zero trade deficit (or a number near to zero) is a real possibility. The most critical components would be incremental growth in services exports and remittances (aside from expected growth in goods exports due to reforms, also under incremental growth prospect). The incremental growth leading to zero or near zero trade deficit is based upon the following:

- Services exports have exhibited the potential to grow even above 30 percent year-on-year basis, like in FY 12-13. Similarly, in FY 09-10, services goods recorded a growth of approximately 28 percent (in contrast, the declines have been less severe, and average growth over the decades remains positive). The argument in this Plan is that if proposed reforms like sorting out lop-sided taxation issues related to IT firms and freelancers are resolved, which would incentivize related businesses to relocate to Pakistan (for example), the growth in services exports could surpass its former highs. This incremental increase per year is used in calculations below.
- The growth in services exports, as argued above, act as substitute to services imports, thus lessening the payment pressures, which then reflect in overall trade balance.

There are two ways of gauging the possible outcomes in terms of exports and imports in the coming five fiscal years under various growth rate scenarios. One is the National Income Account (NIA) methodology that uses the IMF approved BPM6 formulation for projected macro figures like fiscal deficits, exports, remittances, imports, etc.

An alternate method, used in the following lines, is based on the use of averages conveyed to us by analyzing long-term trends in the relevant data. In this regard, the trend in goods exports and imports from FY 70-71 to FY 24-25 is used here to extract relevant projections for next five fiscals[26]. Few major trends from this analysis are as follow:

[24] *Although the Remittances are expected to continue its rise, they alone have not been enough to persistently cover Pakistan's trade deficits*

[26] *The 'services' category is discarded here for analysis purposes since similar long-term data is either unavailable or unreliable. Moreover, services only started to become a prominent feature of exports only in the last decade or soto exhibit high degree of elasticity, implying high probability of substitution*

a. Average percentage change in imports (1971-2025) = 5.89 percent
b. Average percentage change in imports (1971-2025) = 8.18 percent
c. Average GDP growth rate (1971-2025) = 4.78
d. Average export earnings as coverage of import expense= 62 percent
e. Average Import to Export ratio= 1.7
f. The lower average percentage change in imports over the period in study basically reflects the inelastic nature of imports in comparison to GDP growth rates, i.e., they tend to be less sensitive to changes in GDP growth rates, and their departures from trend is usually not as pronounced as exports (in the long run). For those who have knowledge of Pakistan's economy, this would not come as a given domestic economy's dependence upon imports (like Industry's dependence upon imported raw material, which does not decline precipitously even when growth rates decline). This is the main reason why higher GDP growth rates tend to lead to higher imports.
g. Turning to projections, taking cue from the long-term data where relative changes in exports and imports are matched against various GDP growth rates, the following lines accordingly compute projections based on average changes under various growth rates and uses these to project growth of exports and exports[27]. The results are then used to compute Import-Export ratio. The results are provided in the tables available in Annex – B.

Plugging in the numbers to Income account methodology for estimating and aggregating various trade indicators (low and high), we get the following numbers presented in table 6.

Table 6: Projections of Trade Related Indicators, *USD Billion*

Indicator	FY26 (Base)	FY27		FY28		FY29		FY30		FY31	
		Low	High	Low	High	Low	High	Low	High	Low	High
Exports (Goods)	30	35	39	41	46	46	55	53	65	60	78
Services Exports	10	12.5	13.7	16	17	20	23	25	29	29	33
Merchandise Imports	63	63	67	68	73	73	79	80	84	85	88
Services Imports	12	13	14	14	15	15	18	17	21	20	23
Trade Balance(G&S)	-30	-28.5	-28.3	-25	-25	-22	-19	-19	-11	-16	0
Workers' Remittances	40	43	44	46	48	49	52	52	56	55	60
Current Account / GDP %	-1	0.2	0.1	0.5	2.0	0.8	3.0	1.5	3.3	3.0	5

Resulting estimates suggest that in this case, we will end up with a zero or positive trade deficit as percent of GDP after 5 years.

[27] *For example, at GDP growth rates between 4-5%, the average export growth rate is 4.83 percent while imports average 6.9 percent at this growth rate*

Key Reform Levers

Achieving the export targets of this Plan requires a multi-pronged strategy anchored in aggressive trade diplomacy and enhanced domestic competitiveness. On the external front, Pakistan will leverage bilateral and multilateral trade frameworks including Free Trade Agreements and Preferential Trade Agreements to open new markets and secure favourable terms of trade. This effort will be operationalised through sector-specific trade delegations targeting 25 countries with high trade deficits, the details of which are provided in Annex-C. Simultaneously, the Plan addresses the structural cost disadvantages that have long undermined export competitiveness, including reducing energy costs to 6–7 cents per kWh, rationalising and simplifying the tax regime, revising the imbalanced Export Financing Scheme, reducing regulatory burden through Ease of Doing Business reforms, maintaining the policy rate at levels conducive to investment, and ensuring a rational exchange rate. The provision of cost-effective raw materials will further strengthen the competitiveness of export-oriented industries, while safeguarding the domestic raw materials sector from undue harm.

On the domestic side, the strategy focuses on reducing the trade deficit through targeted import substitution alongside accelerated export growth across both goods and services. Institutional support will be deepened through special credit arrangements including a dedicated discount window for exporters as well as subsidies for research and development in agriculture and industry, and targeted tax reductions for export-oriented enterprises, particularly those operating within Special Economic Zones and Export Processing Zones. Human resource development remains an equally essential pillar of this strategy, as a skilled and productive workforce is the foundation upon which sustained export competitiveness must ultimately rest.

To sustain export momentum and deepen access to housing finance, two targeted fiscal measures are proposed for the Plan period. First, the mortgage finance limit will be raised to PKR 30 million from PKR 10 million, expanding the reach of formal housing credit to a broader segment of the population. Second, a Drawback of Local Taxes and Levies (DLTL) Scheme of 10 percent will be introduced on incremental export growth, effective from FY 2026-27, for a period of five years, subject to a minimum year-on-year export growth threshold of 10 percent annually, ensuring that the incentive is performance-linked and fiscally disciplined. Together, these two initiatives will require a dedicated budgetary allocation of PKR 300 billion per year, commencing FY 2027-28, with PKR 150 billion earmarked annually for each measure. This sustained fiscal commitment signals the resolve to incentivise export diversification and drive domestic growth while simultaneously strengthening the financial sector's capacity to support long-term productive investment.

[28] *Interventions detailed in Chapter 4.*

CHAPTER 4

PART A

HIGH IMPACT SECTORS

High Impact Sectors: Twenty-one of the economy's most critical sectors have been identified and rigorously analyzed for their strategic importance in both domestic and international contexts. Of these, six emerge as the highest-priority drivers of Pakistan's economic transformation: Agriculture, Energy, Housing and Construction, Textiles, Digital Economy, and Pharmaceuticals. Agriculture remains the backbone of rural livelihoods and food security, employing nearly 37% of the workforce while anchoring upstream and downstream value chains across the economy. Energy is the enabling infrastructure upon which every other sector's productivity depends – persistent deficits in affordable, reliable power continue to suppress industrial output, deter investment, and inflate the cost of doing business at a structural level. Housing and Construction functions as a broad-based demand multiplier, generating employment across low- and semi-skilled labor markets while stimulating activity in steel, cement, and allied industries. Textiles, Pakistan's largest export earner, holds irreplaceable foreign exchange significance but requires urgent modernization to remain competitive against regional peers in a rapidly evolving global trade environment. Digital Economy represents the economy's highest-potential growth frontier – with a young, increasingly digitally literate population, the sector offers scalable, low-capital pathways to export diversification and high-value employment creation. Pharmaceuticals, though historically undercapitalized, carries significant potential for import substitution and regional export expansion, particularly as global supply chains reconfigure in the post-pandemic era. Collectively, these six sectors span the full breadth of Pakistan's economic architecture — from agriculture to advanced industry – and their coordinated development over the next five years will determine whether Pakistan's growth trajectory is incremental or transformational.

ENERGY: Electricity Sector (A)

Key Statistics

Current Performance (FY25):

- **Total Installed Capacity:** 46,605 MW (1.6% increase from 45,888 MW in FY24)
- **Electricity Generation:** 90,145 GWh (53.7% from hydel, nuclear, and renewable sources)
- **Energy Mix (by installed capacity):** Thermal 55.65%, Hydel 24.39%, Renewable 12.18%, Nuclear 7.77%
- **Electricity Consumption:** 80,111 GWh (3.6% decline from 83,109 GWh in FY24)
- **Circular Debt:** Rs. 1.8 trillion as of February 2026.
- **Private Sector Participation:** 88 operational IPPs with 20,726 MW capacity through PPIB

Global Context & Rankings:

- **Per capita consumption:** Low by global standards, hardly 7% of the per capita average of industrialized nations. It stood at 492 kWh in 2023, dropping from 560 kWh in 2021[27]
- **Electricity affordability:** Most expensive in the region, at 12 cents/k-Wh — India 7–12, Bangladesh 6–10, Vietnam 8–9, China 7–11.
- **Industrial Consumption:** Around 27% of total electricity consumption in Pakistan, Global average of 40% +
- **Taxation:** Globally, only sales tax and a small portion of capacity payments. In Pakistan, plethora of taxes and charges

[27] *Source: Ener Data, 'Pakistan Energy Information'*

Strategic Importance

Electricity consumption is closely tied to economic growth, making the power sector central to Pakistan's industrial productivity and development. At the same time, it poses a major fiscal challenge due to heavy subsidies, contingent liabilities, and capacity payments. The sector underpins domestic economic activity and growth, yet industrial consumption stands at only around 27% of total electricity consumption, well below the global average of 40%. This reflects suppressed productivity due to high energy costs for business operations. Electricity affordability in Pakistan is among the lowest in South Asia and in the world, deterring consumption at household and industrial level. Per capita consumption stands at a mere 492 kWh — hardly 7% of the per capita average of industrialized nations — signaling a significant competitiveness gap and 'energy poverty'.

Key Challenges

- **Installed Capacity and Generation:** Total installed capacity reached 46,605 MW in FY25 (now ~43,000 MW), with electricity generation at 90,145 GWh, 53.7% from hydel, nuclear, and renewable sources.
- **High Electricity Cost:** Electricity cost for industry stands at 12 cents/kWh, the highest in the region.
- **Circular Debt:** Circular debt stands at Rs. 1.8 trillion as of February 2026. Most of the debt is passed on to the consumers, both industrial and domestic.
- **Declining Consumption:** Electricity consumption fell 3.6% to 80,111 GWh from 83,109 GWh in FY24, largely due to high electricity costs. This also shows structural imbalance against 43,000 MW of installed capacity.
- **Lucrative-to-a-fault IPP Contracts:** Extractive and overgenerous IPP contracts have been taking toll on public exchequer, with billions drained in terms of capacity payments.
- **Transmission & Distribution Losses:** Dilapidated T&D infrastructure causes high losses and limits sector performance. The sector incurred Rs. 265 billion to the national exchequer in FY2024-25 for not meeting NEPRA's T&D loss targets.
- **Regulatory Weakness:** NEPRA suffers politicization and low independence, leading to delayed decisions and lengthy litigation.
- **Fragmented Governance:** 26 public sector entities operate across generation, transmission, and distribution; private sector presence is limited mainly to production (except KE).
- **Transmission Challenges:** Old, dilapidated transmission lines cause line losses and North-South supply issues.
- **DISCOs Inefficiency:** DISCOs face electricity theft, free units, dilapidated infrastructure, political interference, and politically appointed boards.
- **Generation Constraints:** Plants rely on imported fuels and machinery, operate under generous terms, show low utilization, and have faulty demand projections.
- **Policy and Financing Gaps:** Donor loans favor generation over T&D, while solar adoption without domestic production increases foreign exchange dependence.
- **Fiscal Burden:** The sector drains public finances with Rs. 7 trillion in subsidies, more than Rs. 11 trillion in capacity payments since FY97-98, and Rs. 1.5 trillion+ in contingent liabilities.
- **Excess Capacity:** Faulty demand projections and lop-sided incentives create low productivity, particularly in generation.
- **Technical Limitations:** Grid integration of variable renewable energy is restricted by infrastructure and lack of skilled expertise.
- **Rural Energy Deficit:** Off-grid shortages affect over 15,000 villages, causing GDP losses of 0.8–1%.
- **Market and Policy Gaps:** Absence of competitive electricity markets, carbon pricing, and excessive taxation limits efficiency and affordability.

Reform Proposals

Long Term

- **Fix Circular Debt Structurally:** PKR 1.6T decline from one-off measures is temporary; governance reforms, loss reduction, and cost recovery must solve circular debt permanently.
- **Fix Energy Mix:** Induct renewables after upgrading infrastructure accordingly.
- **Rationalize Generation Capacity:** Wind up costly, underutilized plants and renegotiate IPP contracts to reduce capacity charges.
- **Create Energy Markets:** Develop energy markets for transparent, rigorous energy operations.
- **Privatize and Decentralize Power Sector:** Sub-localize grid and transmission. Privatize transmission and distribution sector and devolve it to provincial level.
- **Integrate Power and Gas Planning:** Coordinate renewable integration and gas-power reforms to avoid distortions like captive gas levies forcing inefficient grid shifts.
- **Simplify Regulations:** Implement time-bound litigation, enforce NEPRA decisions promptly, standardize Merit Order dispatch, and clarify solar and grid tariffs.

Short Term

- **Pause New Capacity Additions:** No new generation capacity unless it improves efficiency and lowers electricity costs.
- **Upgrade Transmission and Distribution:** Attract investment to modernize T&D infrastructure and reduce system losses.
- **Promote Domestic Energy Inputs:** Encourage Thar coal use and incentivize local solar panel production.
- **Achieve Sustainable Grid Consumption:** Limit federal footprint, reduce contingent liabilities, and ensure efficient, grid-based electricity use.
- **Strengthen Regulatory Authority:** Ensure NEPRA's independence, enforce accountability, define consumer categories, and revise appointment rules.
- **Privatize DISCOs:** Switch to prepaid meters, install professional boards, and reduce political interference.
- **Streamline Institutional Roles:** Limit Ministry of Energy (Power Division) to coordination, replace politically connected staff with technical experts, and curtail redundant PSEs.
- **Redirect Donor Funding:** Focus donor loans on T&D projects and renewable energy credit facilities.

Infrastructure & Major Issues/Impediments

- High Installed Capacity, falling consumption: 46,605 MW installed capacity while average consumption is hardly 19,000 MW
- Power Governance: Sector dominated by public entities with poor outcomes and non-resolution of pressing issues like Circular Debt (CD)
- Huge drain upon public finances: Tax-financed support/subsidies, Contingent Liabilities, Capacity Payments, etc.
- Dilapidated Infrastructure: Overall, infrastructure is of low quality, especially T&D infrastructure which results in huge losses during transmission. Productivity and capacity utilization of power plants, especially in public sector, is low. DISCOs performance highly inefficient
- Cross subsidies: The loss of one sector or subsidy to a specific sector/region falls upon other sectors. Industry, for example, has been at the receiving end of this inefficient, unjust mechanism
- Poor regulation: The regulatory system, led by NEPRA, is highly politicized and non-independent, working under the Cabinet. Delayed decisions as well as lengthy court cases

Analytical Framework

Pakistan's power sector (electricity) encompasses three major areas: Production, Distribution and Transmission. Around 26 public sector entities are active participants in all three sectors, with private sector's presence only in production (except for KE). The sector survives on significant liquidity input (taxpayer money) of public funds. All three sub-sectors suffer from major deficiencies.

#	Issues	Cost To Economy	Reform Proposals	Investment Cost[28]	Expected Outcome	Measurable KPIs	Action By
Policy & Regulatory Issues							
1.1	**Heft capacity payments to IPPs and GENCOs drain upon public finances, burdening fiscal resources with taxpayer ultimately bearing the brunt**	• Rs. 7 trillion in subsidies + Rs. 11 trillion in capacity payments from FY 97-98, just to keep the system afloat.[29] • Rs 1.5 trillion+ in contingent liabilities • Other costs	• Around 30-35% of capacity payments go to public sector production plants, a modus operandi which needs to be revisited • Lessening of federal fiscal support through devolving power related matters and strategizing every sub-sector (Production, Transmission, Distribution) paying for its own inefficiencies and risks • End dependence on loans as a panacea of Circular Debt (CD) since it's a governance issue	• This is a legislative matter and as such does not entail any cost but change in basic functioning of the power sector	• Devolution of power affairs from federal to provincial and lower levels • Every province, district and locality pay for its own power and related issues • Working CTBCM • Transparent agreement, with no ToP agreements • Distribution completely privatized • Federal government only acting as regulator	• Devolved decision-making related to power sector • Significant reduction leading to end of cross-subsidies • Gradually, lesser quantum of contingent liabilities, CD, Capacity Payments and other liabilities. Capacity payment going to public sector electricity generation plants	• MoP, Finance Division, Federal Cabinet (for devolution related decision), Provincial governments, SIFC, Law Division

[28] *Investment Costs are just estimates and can vary depending upon the feasibility studies*

[29] *Mehmood, Shahid (2025), 'The transition that (almost) bankrupted a nation', SSRN*

#	Issues	Cost To Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action By
Policy & Regulatory Issues							
			• No more Take or Pay (ToP) contracts that create Capacity Payments • Every district/locality resort to bulk-buying from competitive bidders under CTBCM and pay from its fiscal resources (allotted or collected) • End to bureaucratic meddling via Power Ministry, letting relevant people run the system. Devolution to provinces • End to centrally determined pricing, with every locality/province taking advantage				

#	Issues	Cost To Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action By
Policy & Regulatory Issues							
			of its comparative advantage				
1.2	**IPP contracts on extremely generous terms, reliance on imported fossil fuels + imported machinery, low utilization + low productivity plants, persistently faulty demand projections**	• Lop-sided incentives (like guaranteed RoI without much risk exposure) leading to major portion of investment in generation only, giving rise to excess capacity and buildup of capacity payments • Underutilized plants due to low demand • Demand estimates built upon faulty basis (like 6% annual GDP growth rate) • Huge import bill in lieu of input and machinery imports • Capacity payment burden due to Take or Pay contracts	• Concentration upon domestic inputs like Thar coal rather than imported coal and RLNG to lessen the foreign exchange burden • Assiduously follow 'Merit Order', whereby the cheapest source of production is given priority in terms of production • No more capacity addition and revisit the estimated electricity demand model which till now has done a very poor job • Create space for lowering prices as	• Policy changes required instead of additional investment.	• Lower capacity payments • Higher consumption via central grid • Limited or no violation of Merit Order • No more ToP contracts, only Take and Pay (T&P) contracts • End to new capacity addition • Lower capacity payments	• Quarterly growth of capacity payments • Merit Order decisions • Nature of contracts (not TP but T&P) • Productivity growth in electronic goods and services	• MoP, Finance Division, Federal Cabinet (for devolution related decision), Provincial governments, SIFC, Law Division

#	Issues	Cost To Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action By
Policy & Regulatory Issues							
			lower prices can spur demand, via renegotiating capacity payments, spreading them over a longer period • Enforcing productivity standards in terms of electrical appliances				
1.3	**Electricity Transmission-Poor quality transmission lines and equipment, Land Use Framework Gaps, poor management and poor-quality infrastructure, low investment, duality of**	• Lines for transmission are mostly poor quality, which means billions of rupees of electricity wasted during transmission • NTDC Land Acquisition Framework is very old (1894 Act) which creates significant problems	• Change in incentive structure so that investment (domestic and foreign) flows towards transmission rather than concentrated in production • Both provinces and the federal government should eke out a	• $500 million at least for upgrading transmission lines. $330 million already earmarked by ADB as a loan for this purpose[30]	• Significant upgrade of transmission network, lessening transmission losses by 75 percent at least • Quick resolution of cases • Return of more customers to upgrade national	• % of network upgraded • Amount of electricity evacuated via Lahore-Matiari line • Implementation of new Land Acquisition rules • % of power sector investment directed towards transmission	MoP, Federal Government, Provincial governments, Privatization Commission, Law Division

[30] *'ADB approves $330 million loan for 290 km high-voltage transmission project', DAWN 21st November 2025*

#	Issues	Cost To Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action By
Policy & Regulatory Issues							
	mandate between the center and provinces, lengthy litigation	in expanding the network • Poor management by NTDC of the Matiari-Lahore HV transmission line, meaning its way behind schedule, and Government has to pay considerable capacity payment in its lieu. Moreover, cheap electricity from South cannot be evacuated due to non-completion of this line • Persistent failures have led to provinces setting up their own transmission companies, as in Sindh's case • Low investment in Transmission mainly due to	solution in terms of transmission companies and set aside public funds for its upgrade, before privatizing it • Simplification of procedure regarding litigation, with cases being time-bound • Implementation of the new Land Acquisition framework that has been lurking for approval since 2019 • Immediate completion of Lahore-Matiari HV transmission line for evacuation of cheaper electricity from south		grid, especially industry • New framework for land acquisition implemented • Completion of Lahore-Matiari line • Resolution of issues related to transmission and transmission companies between federal and provincial governments	• % decline in litigation and time for legal decisions	

#	Issues	Cost To Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action By
Policy & Regulatory Issues							
		generous terms offered in terms of production • Long-duration litigation battles increase a project's cost	• Independence to NTDC in its decision without bureaucratic interventions				
1.4	**Electricity Distribution- Inefficient DISCOs, large-scale electricity theft, free electricity units, running DISCOs on non-corporate basis with bureaucratic and political meddling common, Boards filled with politically connected people rather than professionals,**	• Non-recoveries amounting to Rs. 2 trillion or more[31] that results in high CD and increasing taxpayer financed subsidies. Problems is especially acute in terms of government institutions • Huge theft of electricity in DISCOs like QESCO, HESCO, PESCO, etc., which then has to be subsidized • Running DISCOs on non-commercial, non-professional	• Switch to pre-paid meters • Federal and provincial governments should ensure payment of dues that are due to their departments • Strict action against theft, with jail terms and property confiscation • Professional Boards comprising of professionals within their fields • Over-billing or faulty billing be	• Privatization of DISCOs does not entail any cost except for the ones already inherent in their working • For pre-paid meters, the usual modus operandi is that cost can be deducted in bills, spread over many years • An estimated Rs. 450-500 billion required for installing pre-paid meters.[32]	• Privatized DISCOs working on commercial lines, with strict performance evaluation criteria for employees • Pre-paid meters installed, leading to lower incidence of theft • Recoveries of bills on time, especially from public sector organizations • Updated, improved infrastructure in every DISCO area	• DISCO Privatization and decentralization • % of prepaid meters installed • Instances of electricity theft • Quantum of investment in updating the structure • Cross-subsidies	• MoP, Federal Government, Provincial governments, Law Division, Privatization Commission

[31] *'Source: NEPRA*

[32] *'Source: estimates based on consideration of 35 million plus consumers, and the cost of prepaid meters, stated in 'Smart meter prices have been reduced by 40 percent, resulting in nationwide savings of Rs. 150 billion', available at https://power.gov.pk/NewsDetail/NGQ*

#	Issues	Cost To Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action By
Policy & Regulatory Issues							
	fake or inflated billing, poor recoveries, dilapidated infrastructure	basis, with little in terms of performance evaluation of employees • DISCO Boards are filled with politically appointed people who then favor persons rather than the institution	strictly penalized and penalties should be levied on DISCOs by the regulator • Privatization of DISCOs via the Stock Market as there would be more buyers • DISCOs should be able to buy electricity competitively from various providers under CTBCM rather than being directed in this matter from above	this, ADB has already loaned approximately Rs. 94 billion ($330 million) for installing pre-paid meters. However, ADB has lent for 'smart meters', not 'pre-paid meters', which will have to be borne by Power Div before recouping the amount from consumers over time. Setting aside consumers who would get smart meters, expense for consumers with pre-paid meters would come be around 250-300 billion PKR approximately	No cross-subsidizing of one DISCO for another with another DISCO area absorbing losses on their own	• DISCO Privatization and decentralization • % of prepaid meters installed • Instances of electricity theft • Quantum of investment in updating the structure • Cross-subsidies	
1.5	**Huge public sector footprint**	• More than 26 public sector entities deal	• Ministry of Energy (Power Division)	• Only legal steps for devolution	• Limited public sector footprint	• Quantum of liabilities	Federal Government,

#	Issues	Cost To Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action By
Policy & Regulatory Issues							
	leading to adverse outcomes	with power sector. Yet, in purely financial 'net' terms (income –expenses), they contribute little (if anything) in terms of betterment of this sector • Their shortcomings result in subsidies and other issues like CD and present + future liabilities like free electricity and pensions • Power sector bureaucracy, post-retirement, settle within these organizations or on Boards	role should be limited to that of a coordinating platform between the Centre and the provinces, with main functions of the power sector devolved to provinces • Technical experts, rather than bureaucrats, should run the Power Division • Majority of these 26 entities are not needed for functioning of energy related issues. They mostly serve as parking areas for retired civil servants and politically favored people rather than qualified experts. These should be significantly curtailed	and curtailing the number of 26 PSEs would be needed	and limited liabilities • Significant reduction in the number of federally operated PSEs in power sector • Technical experts and professionals replacing bureaucracy (serving and retired) as well as politically connected persons	• Quantum of current expenses associated with 26 PSEs • Number of technical experts and professionals working on Boards and PSEs	Provincial governments, Law Division

#	Issues	Cost To Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action By
Policy & Regulatory Issues							
1.6	**Shortcomings of the regulator**	• NEPRAs decisions are rarely implemented and usually behind schedule (like quarterly fuel adjustments) • NEPRA has historically served as parking place for retired bureaucrats and politically well-connected persons • Its advice, recommendations and limits set by it are rarely followed (like 11% allowed in terms of T&D losses, while the real number is in excess of 18%) • NEPRAs independence in various matters (like Tariff determination) compromised by placing it under government supervision	• Modify Section 3 of the Act to ensure independence of NEPRA • Specify 'Conduct of Business' regulations as required under Section 5(1) of the NEPRA Act • Modify Section 3(2)(a)(b)(c)(d) and Section 3(5) in terms of appointment of Members and Chairman of NEPRA, ensuring that the appointees have at least 10 years of exclusive experience of the power sector (aside from the overall experience required). Importantly, there should be no extensions or re-appointments	• Would require changes to the legal framework of the organization	• Better regulation leading to improvement in overall outcomes in this sector • NEPRAs independence in decision making ensured • NEPRAs accountability mechanism instituted • Professional and competent persons staffed in NEPRA and its Appellate tribunal, with the requisite experience in power sector • Time-bound decisions of its Appellate tribunal • Nominations through competition rather than direct recommendations by provinces and	• Changes in NEPRA regulations • Independence of NEPRA in its decisions • Timely implementation of decisions (like QFA) • Accountability framework of NEPRA and regular financial statements	Federal Government, Provincial governments, Law Division

#	Issues	Cost To Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action By
Policy & Regulatory Issues							
		(nowadays it's under the Cabinet Division) • No regular financial audits of NEPRA have been carried out • Since its establishment in 1998, NEPRA has been working without 'Conduct of Business Rules' • Head of NEPRAs Appellate tribunal restricted to retired HC judges, impeding competition and giving rise to conflict of interest • Lengthy legal procedures as the decisions of Appellate Tribunal can be challenged before HC and the SC • Till now, consumer 'categories' have not been clearly outlined by the Authority,	• Provincial nominations should be on competitive basis rather than being chosen directly by its political leadership • Amend various provisions of Section 12 to bring in competition for post of Tribunal head, with experienced lawyers also in the run • Unless some severe lacunae in orders of the NEPRA Appellate Tribunal can be established, its decisions should not be challengeable in upper courts. Moreover, the process should be time bound • Clearly define consumer categories under Section		federal government		

#	Issues	Cost To Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action By
Policy & Regulatory Issues							
		which leads to misdirected subsidies. As per NEPRA's determination, there are 18 million consumers who qualify for subsidies. However, poverty survey by BISP puts the number at half (9 million), meaning double the estimates of required subsidy • No proper accountability mechanism of the body in case of poor performance	2(iv)(a) of NEPRA Act • Implement accountability mechanism of the Authority, as enshrined in National Electricity Policy (NEP) & NEPL ('Contours of Regulatory assessment provided in Article 5.9.5 of NEP & Section 112 of NEPL, Annexure-4). The Chairman or Member may be removed by the Federal Govt. if, on an inquiry ordered by the CCI, Prime Minister, Parliament, Parliamentary Committee on electricity or an independent Commission (to be prescribed by the federal government through rules), he/she is found guilty				

#	Issues	Cost To Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action By
Policy & Regulatory Issues							
			of corruption, financial irregularities, misuse of regulatory powers for personal or political gain, or fails to disclose Conflict of Interest as provided in Section 8(2)and 8(3) of 1997 Act, 8(A) of amended Act of 2018 and 2021				
1.7	**The donor footprint in the power sector**	• Piling up huge amounts of foreign loans without much improvements • Opaque operations of donors' and they being unaccountable under Pakistani laws • Their advice leading to creation of a plethora of PSEs in power sector, thus increasing public sector footprint (SAP, PEPCO,	• The decision to acquire a foreign loan should only be made after going through proper procedure, and made by a Committee of Economists and financial experts after reviewing the need • No more PSE establishments under advice of	None	• Lower quantum of foreign loans for power sector • No more PSEs under donor advice • Loans only after proper scrutiny and analysis of need for loans	• Flow of foreign loans to power sector, bifurcated by Generation, Transmission and Distribution • Number of PSEs established on donor advice • Procedure for coming up with demand	Federal Government, EAD, Finance Division

#	Issues	Cost To Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action By
Policy & Regulatory Issues							
		NEPRA, LNG, PSEDF, etc.) • Majority of their loans are directed towards production rather than transmission and distribution where they are needed the most (WB and ADB have loaned $15 billion since IPP Policy in 1994, with more than 70% going to electricity generation, resulting in significant excess capacity)[33]	donors. Any such step should be thoroughly reviewed within the country's laws and the requirements that justify any new entity • Foreign loans, if required, should be directed towards Transmission and Distribution rather than production			for foreign loans	
1.8	**The solar electricity challenge**	• With fixed costs (like capacity payments) in power sector already locked in, the significant movement away from main grid would only increase the quantum of fixed costs	• Steps towards upgrading the main grid and reducing electricity tariffs in order to spur increased consumption from main grid • In lieu of the tremendous	• The present incentives for SEZs can be made use of in terms of solar panel production in Pakistan • Modification of tariffs as per consumption patterns	• Higher consumption through the main grid • Higher production of electricity panels within the country	• Grid consumption • Production (not merely assembling) of electricity panels in Pakistan	Engineering Development Board (EDB), MoIP, Federal government

[33] *'Mehmood, Shahid (2025), 'The transition that (almost) bankrupted a nation', SSRN*

#	Issues	Cost To Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action By
Policy & Regulatory Issues							
		• There is no production facility of solar panels in Pakistan, and all of the panels are imported. This would see Pakistan's import bill jump up substantially, resulting in foreign exchange crisis as in the case of imported inputs like coal, LNG, machinery, etc.,	increase in solar usage, the pricing should be upon the 'marginal' principle, i.e., when solar production is at its highest (during noon, for e.g.), usage rates should be lowered so as to incentivize consumption through main grid • Incentives for industry and investors (foreign and domestic) to produce solar panels at home, spurring job creation and technology transfer		• Tariff modification in lieu of consumption patterns to encourage more uptake		
Access to Finance							
2.1	**High Cost of Capital**	• RE projects facing 18-20% financing costs vs global 5-7% making projects unviable	• $15-20B annual financing gap constraining energy infrastructure development	• RE Green Fund: Establish dedicated $1B blended finance facility (RE Development Fund +credit guarantees)	• $1B total: $500M (blended finance) + $300M (Credit Guarantee Fund) + $100M	• Cost Reduction: Financing costs reduced from 18-20% to 10-12% • RE Financing	State Bank of Pakistan (SBP), Ministry of Finance, RE Development Fund

#	Issues	Cost To Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action By
Access to Finance							
					(SBP Refinance Facility)	cost reduced to 10-12%	
Technology Adoption							
3.1	**Overall infrastructure of the power sector in dilapidated condition, with low levels of technology use and upgrades (especially in Transmission and Distribution sector), leading to huge losses**	• Absence of forensic audit instruments led to high-capacity payments to producers • Detection of theft or tinkering with electricity lines not possible without manual inspections, that increase surveillance costs and risks to livelihoods of workforce • Only 10 GW of variable RE can be added to the grid due to technical limitations • Failure to optimize upon technical aid for better outcomes (like SCADA	• Priority should be given to investment in T&D where majority of losses occur, updating its infrastructure with modern technology • Facilitate forensic audit of producers to gauge the real levels of production	• Existing funding (donor) can be directed to this.	• Improved infrastructure	Reduced T&D Losses	National Grid Company, DISCOs

#	Issues	Cost To Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action By
Technology Adoption							
		system, in operation since the early 1980s)					
Human Resource Issues							
4.1	**Skills and Training Deficit**	• Shortage of technical expertise leads to Import dependence, especially in terms of mega projects like Diamir Bhasha • Reliance on foreign experts adding significant project costs • Competitiveness Loss: Skills gap reducing Pakistan's attractiveness for various types of manufacturing investments (like RE)	• Analyze why Pakistan's earlier advantage of WAPDA years wilted away? It used to produce top-of-the-line human capital that was famous for their skills • Rejuvenate training institutes in this sector to bring them in line with international standards • National RE Skills Certification: Establish international standard training programs in partnership with NAVTTC and TVET	• 100 million (PKR) for updating curriculum and advanced training such as at WAPDAs institutes	• Lesser dependence on foreign experts for completion of projects, especially mega level projects • Lower project costs • The curriculum and methodology of training institutes in line with international standards	• Number of foreign experts used in Power sector projects • Cost of hiring foreign experts (as % total costs) • Curriculum quality at training institutes	WAPDA, NAVTTC, TVET Institutes, Federal government

#	Issues	Cost To Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action By
Market Access and Development							
5.1	**Off-grid rural energy deficit, leading to loss of an estimated 0.8-1% of GDP**	• >15,000 villages non-electrified, limiting rural economic productivity, market development and consumption from the main grid • Lower levels of income (compared to potential) from operating the main grid • Rural areas increasingly taking recourse to solar panels for off-grid solutions • Estimated GDP loss of 0.8-1% due to low rural productivity from energy deficit	• Comprehensive program for electrification of remaining rural areas through main grid • Competitive rates for incentivizing electricity consumption • Extension of main grid to these areas on financial cost-benefit analysis rather than political basis (for e.g, whether a mini-grid running on RE would suffice rather than extending fossil fuel-based electricity)	• Costs differ by locality. A basic solar-based grid solution costs around 40 thousand (PKR) for a single home, fulfilling demand for lights, small fan and battery chargers[34] • A 2024 study by the WB on universal electricity access estimated the capital costs of this project to be $13.3 billion[35] However, this estimate does not take into account increased pace off-grid solar adoption in rural areas and is likely an exaggerated estimate. Basic connectivity of these areas with the main grid would require PKR 150 billion or more.[36]	• Substantially higher uptake from national grid • Increased quantum of economic activity in newly electrified areas	• Movement towards universal electricity access • Number of villages electrified	MoE, federal and provincial governments, Private sector

[34] *'Solar power in rural Pakistan', Bin Fazal Electric. Available at https://binfazalsolar.com/off-grid-solar-solutions-for-remote-areas/*
[35] *'Pakistan least-cost electrification study' (2024), p.XI, Pakistan Sustainable Energy Series*
[36] *Discussion with NTDC official*

#	Issues	Cost To Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action By
Market Access and Development							
5.2	**Failure to create competitive provider market via CTBCM and carbon pricing**	• In the absence of competing electricity providers, consumers have to pay excessively high rates, determined by Government rather than competitive forces • In lieu of public sector monopoly and built-up liabilities, no investor willing to take such risks • Absence of carbon credit market that could lessen the incidence of pollution in the country	• CTBCM framework has been approved in 2015. Needs to be implemented immediately • Facilitate founding and working of a carbon credits market between producers	• None	• A properly working of CTBCM with limited government intervention • Initiation and workings of a carbon credits market	• CTBCM application • Carbon credits market	ME, Finance Division, Federal and provincial governments
Tax Structure							
6.1	**Excessive and Extractive taxation**	• Electricity becomes unaffordable as a result of excessive taxation	• Stop the extraction of revenue in electricity bills under various pretexts (income tax, charges, various taxes, etc.). Only sales tax on services, and any other unavoidable tax related to electricity provision should be implemented	• Changes in taxation rules	• Lower % of taxes in whole electricity bill • Lower electricity tariffs • Taxation removal advantage pass-on to cons-umers & industry	• % of taxes in electricity bill • Consumption of electricity from main grid after removal of taxes	FBR, Power Division, Finance Division

Investment Summary

The total stock of public sector investments in Power sector stood at Rs. 104 billion by end of last fiscal. The average credit flow to this sector exceeded Rs. 516 billion in the last 5 years, reflecting a healthy flow of credit.

Year-wise Investment Summary *(PKR Billion)*

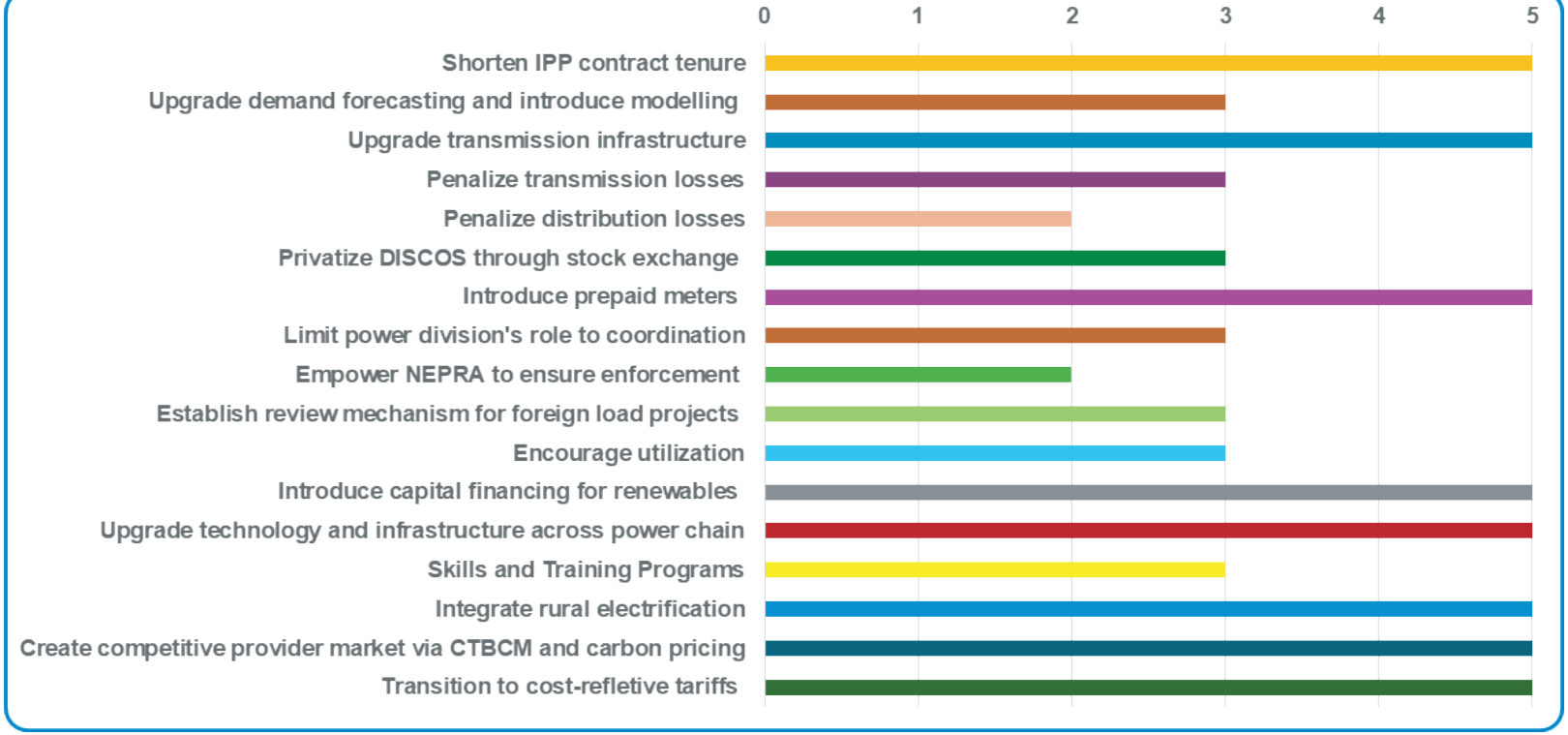
Category	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Policy & Regulatory Issues						**340**
1.3 Filling Transmission Gaps	28	28	42	42	-	140
1.4 Pre-paid Meters	25	25	50	50	50	200
Access to Finance						**279**
2.1 Capital Finance (Green Fund)		93	93	70	23	279
Technology Adoption						**-**
Human Resource Issues						**-**
Market Access & Development						**150**
5.1 Integrating Rural Solar Electrification	20	20	30	50	30	150
Tax Structure						**-**
Total	**73**	**259**	**308**	**281**	**127**	**1,048**

**Proposed interventions based investment estimates*

Investment Multiplier

The multiplier impact of investment in Pakistan differs by different studies. Majority of studies have been done in context of PSDPs impact since it tends to be the largest portion of investment on aggregate (there is little in terms of estimates of private investment multiplier). However, there is no unanimity in terms of the size of multiplier. Almost all studies put it below 1, between 0.5 and 1. We will use 0.6 as the multiplier of investment based on these studies. The investment multiplier value for the power sector is Rs.629 billion, spanned over 5 years.

Year-wise Interventions in Power Sector



Conclusion

The electricity sector is critical to Pakistan's economic growth, industrial productivity, and fiscal stability, yet it faces structural inefficiencies, low consumption, and a heavy public sector footprint that undermine its potential. High transmission and distribution losses, regulatory weaknesses, and an unsustainable energy mix contribute to low affordability and limited industrial uptake. Comprehensive reforms—including privatization of DISCOs, regulatory strengthening, infrastructure upgrades, and rationalization of generation capacity—are essential to improve efficiency, ensure financial sustainability, expand access, and enable the sector to support economic competitiveness and long-term growth.

ENERGY: GAS & PETROLEUM SECTOR (B)

Key Statistics

Current Performance (FY25):

- **Petroleum Consumption:** 13.17 million metric tonnes (7.04% increase from 12.30 MMT in FY24)
- **Natural Gas Consumption:** 3,143 MMCFD (including 798 MMCFD RLNG - 25.4% import dependency)
- **Oil Import Bill:** US$ 8.40 for 12.53 MMT imports
- **Sectoral Distribution:** Transport 80%, Overseas 11.3%, Industry 5.7%, Others 3%
- **Power Sector Shift:** 77.68% decline in petroleum usage (116.21 thousand MT)

Global Context & Rankings:

- **RLNG Import Dependency:** 25.4% of total gas consumption
- **Regional Gas Position:** Pakistan ranks among top 5 gas consumers in South Asia
- **Import Vulnerability:** 95%+ petroleum product import dependency
- **Energy Security Index:** Below regional average due to import reliance

Infrastructure & Connectivity:

- **Gas Pipeline Network:** 14,276 km transmission, 162,031 km mains, 41,577 km service pipelines
- **Consumer Base:** 10.7+ million gas consumers across Pakistan
- **RLNG Terminals:** 2 operational terminals with 1,200 MMCFD capacity
- **LPG Infrastructure:** 11 producers, 351 marketing companies, ~6,000 distributors
- **Refining Capacity:** Suboptimal utilization with continued import dependency

Innovation & Research Infrastructure:

- **Exploration Activity:** Declining domestic discovery rates
- **Technology Adoption:** Heavy reliance on foreign technology and expertise
- **R&D Investment:** Minimal investment in indigenous energy solutions
- **Enhanced Recovery:** Limited implementation of advanced extraction techniques

Strategic Importance

The gas and petroleum sector is critical for Pakistan's energy security and economic stability, as demonstrated amply by the recent events in the form of Iran-Israel and USA war. Petroleum consumption reached 13.17 million metric tonnes[37] in FY25, with natural gas consumption at 3,143 MMCFD, including 798 MMCFD of RLNG, reflecting a 25.4% import dependency. Pakistan ranks among the top 5 gas consumers in South Asia, while its petroleum product import dependency exceeds 95%, underlining the sector's regional relevance and strategic importance in global energy markets. The indigenous energy production was 53 million tonnes of oil equivalent (MTOE) and energy imports remained 30 MTOE in FY2023-24[38]. The commercial energy supply during the year was 81 MTOE.

Suboptimal refining capacity, minimal R&D investment, and heavy reliance on foreign technology indicate both the need and potential for enhancing domestic capabilities and competitiveness in global energy value chains.

Key Challenges

- **Limited Infrastructure and Connectivity:** 14,276 km of transmission pipelines, 162,031 km of mains, 41,577 km of service pipelines, serving over 10.7 million consumers.
- **Insufficient RLNG and LPG Capacity:** Two RLNG terminals provide 1,200 MMCFD; 11 LPG producers, 351 marketing companies, and ~6,000 distributors support distribution.
- **Declining Domestic Exploration:** Domestic gas exploration is decreasing, raising reliance on imported gas.
- **Minimal Enhanced Recovery Adoption:** Advanced recovery techniques are scarcely used, limiting sector efficiency.
- **High Dependence on Imported Technology:** Low investment in indigenous energy solutions constrains productivity.
- **Severe Structural Bottlenecks:** Gas distribution, LPG marketing, petroleum refining, strategic reserves, and cross-border trade face governance and operational inefficiencies.
- **Distorted Gas Pricing:** Non-market pricing creates cross-subsidies, deters private investment, and imposes Rs. 150B annual subsidies.
- **Absence of Strategic Petroleum Reserves:** Lack of formal reserves policy drives an $8.4B import bill and $1B risk from supply disruptions.
- **Aging Pipeline Infrastructure:** Outdated pipelines incur $800M in annual maintenance and $200M in leakage losses.
- **Weak Federal-Provincial Coordination:** Poor coordination in gas allocation and pricing reduces investment incentives and efficiency.
- **Complex Fiscal and Tax Burdens:** Petroleum levy and complicated taxes add $800M annual costs and hinder infrastructure development.
- **Declining Domestic Production:** Inadequate depletion allowances and high taxes contribute to $1B annual decline in exploration and output.

[37] *https://www.finance.gov.pk/survey/chapter_25/14_Energy.pdf*
[38] *NEPRA State of Industry Report 2025*

Reform Proposals

Long Term

- **Domestic Refining Expansion:** Encourage establishment of export-oriented refinery capacity with strategic international partnerships.
- **Enhance E&P:** Issue more exploration and production licenses to enhance local production.
- **Pipeline Modernization:** Upgrade and modernize pipeline network.
- **LPG Infrastructure Development:** Expand storage and distribution networks via dedicated LPG Infrastructure Fund and subsidized Rural LPG Program.
- **Energy R&D Enhancement:** Establish specialized petroleum and gas research centers supported by R&D tax credits and innovation grants.
- **Enhanced Oil Recovery Deployment:** Promote advanced recovery technologies alongside digital and infrastructure upgrades to increase domestic production.
- **Cross-Border Energy Framework:** Streamline TAPI, IP pipeline completion, LNG cooperation, and establish a Regional Energy Corridor.
- **Cross-Border Energy Framework:** Streamline TAPI, IP pipeline completion, LNG cooperation, and establish a Regional Energy Corridor.

Short Term

- **Market-Based Pricing:** Gradually shift to market-determined gas prices with targeted social protection and transparent inter-provincial gas sharing framework.
- **Petroleum Tax Rationalization:** Optimize levy structure to balance revenue generation and sector competitiveness.
- **Gas Development Incentives:** Introduce enhanced depletion allowances, exploration incentives, and accelerated depreciation for pipelines and processing facilities.
- **Regulatory Reforms:** Reform OGRA's role in gas pricing and environmental compliance, and standardize emission monitoring systems.
- **Digital Governance:** Implement SCADA, IoT monitoring, and automated operations across gas distribution networks.

Analytical Framework

The Gas & Petroleum sector encompasses sub-sectors such as Natural Gas distribution, LPG marketing, Petroleum refining, Strategic reserves, and Cross-border energy trade, all addressed within this unified framework.

#	Issues	Cause	Cost to Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action By
Policy & Regulatory Issues								
1.1	**Gas Pricing Policy Distortions**	• Non-market based pricing creating cross-subsidies • Federal-provincial coordination gaps in gas allocation • Regulated pricing discouraging investment and conservation	• **Market Distortion:** $1.5B annual subsidy burden distorting price signals • **Investment Deterrent:** Delayed private sector participation worth $2B annually	• **Market-Based Pricing Transition:** Gradual shift to market-determined gas prices with targeted social protection • Gas Allocation Formula: Transparent, constitutional framework for inter-provincial gas sharing	• Mainly legislative changes to decision-making required	• **Price Efficiency:** Market-responsive gas pricing encouraging conservation • **Investment Climate:** Enhanced private sector confidence in gas sector investments	• Gas prices reflect supply-demand fundamentals • Zero inter-provincial gas allocation disputes • Private investment in gas sector increased by 200%	• OGRA • Ministry of Energy • Federal/ Provincial Governments

#	Issues	Cause	Cost to Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action By
Policy & Regulatory Issues								
1.2	**Petroleum Policy Uncertainty**	• Inconsistent refinery policies affecting investment • Lack of strategic petroleum reserves policy framework • Import duty structures not supporting domestic refining	• **Import Dependency:** $8.40B annual import bill with • **Energy Security Risk:** $1B potential economic impact from supply disruptions	• **National Refinery Policy:** Comprehensive framework encouraging domestic refining capacity expansion • **Strategic Reserves Policy:** 90-day petroleum product reserve requirements with phased implementation	• Change in legal framework required	• **Import Substitution:** 40% reduction in refined product imports through domestic capacity • **Energy Security:** 90-day strategic petroleum reserves operational • Potential $2B savings from local refining	• Domestic refining capacity increased to 400,000 bpd • Strategic reserves of 15 million barrels established • Refinery investment increased by $4B	• Ministry of Energy • Petroleum Division • Oil Companies
1.3	**Cross-Border Energy Framework**	• Limited regional energy cooperation agreements • Insufficient pipeline connectivity with neighboring countries • Regulatory barriers in cross-border energy trade	• **Regional Trade Loss:** $1B potential regional energy trade not materialized • **Energy Security Gap:** Over-reliance on seaborne imports increasing vulnerability	• **Regional Energy Corridor:** TAPI + IP pipeline completion + regional LNG cooperation • **Cross-Border Trade Framework:** Streamlined regulatory processes for energy trade	• PKR 840B (Cross-border Infrastructure & Trade Framework)	• **Regional Integration:** Pakistan positioned as regional energy hub • **Import Diversification:** Multiple supply sources reducing import vulnerability	• 2,000 MMCFD cross-border pipeline capacity operational • $2B annual regional energy trade volume • 30% reduction in import dependency	• Ministry of Energy • Ministry of Foreign Affairs • Regional Energy Bodies

#	Issues	Cause	Cost to Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action By
Policy & Regulatory Issues								
1.4	**Environmental Compliance Framework**	• Limited environmental monitoring in gas/petroleum operations • Weak emission standards and enforcement • Inadequate environmental impact assessment processes	• **Environmental Cost:** $200M annual environmental damage from poor standards • **International Compliance:** Risk of trade barriers due to environmental non-compliance	• **Environmental Standards Enhancement:** Comprehensive monitoring + emission control systems • **Green Energy Transition:** Carbon pricing mechanism for fossil fuel operations	• PKR 420B (Environmental Monitoring & Compliance Infrastructure)	• **Environmental Protection:** 90% compliance with international environmental standards • **Green Transition:** Carbon management integrated in sector operations	• •Emissions reduced by 30% across sector • 5 million tonnes CO2 captured annually • 100% environmental compliance certification	• Ministry of Climate Change • Environmental Protection Agency • OGRA
Access to Finance								
2.1	**Exploration & Production Financing Gap**	• High-risk perception deterring commercial lenders • Limited specialized E&P financing institutions • Complex regulatory approval processes affecting investor confidence	• **Production Decline:** $3B annual economic impact from declining domestic production • **Import Escalation:** Additional $1B annually in import costs due to insufficient domestic exploration	• **E&P Development Fund:** Specialized financing facility for oil & gas exploration with risk-sharing mechanisms • **Exploration Incentive Package:** Enhanced fiscal incentives for domestic and foreign E&P companies	• If the legal and administrative structure can be changed in a manner so as to incentivize E&P activities, private companies would pour in their equity and credit without public sector funds	• **Production Enhancement:** 30% increase in domestic oil & gas production • **Exploration Revival:** 50+ new exploration wells annually	• Indigenous oil production increased by 20,000 bpd • Gas production increased by 500 MMCFD • $2B annual FDI in E&P sector	• Ministry of Energy • E&P Companies • Development Finance Institutions

#	Issues	Cause	Cost to Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action By
Access to Finance								
2.2	**Infrastructure Investment Deficit**	• Aging pipeline infrastructure requiring massive replacement • Limited access to long-term infrastructure financing • High maintenance costs due to outdated systems	• **Infrastructure Cost:** $800M annually in maintenance + $200M losses from leakages • **Economic Inefficiency:** $500M annual loss due to distribution inefficiencies	• **Infrastructure Modernization Fund:** Dedicated financing for pipeline replacement and smart monitoring systems • **Public-Private Partnership Framework:** Structured financing for gas distribution network upgrades	• PKR 1,400B (Infrastructure Replacement & Smart Systems)	• **Infrastructure Reliability:** 50% reduction in pipeline failures and gas losses • **Operational Efficiency:** 30% improvement in distribution efficiency	• Pipeline efficiency improved to 95% • Gas losses reduced to <2% • $1B private investment in infrastructure annually	• SNGPL • SSGCL • Infrastructure Development Finance
2.3	**LPG Sector Development Financing**	• Limited access to capital for LPG infrastructure expansion • High collateral requirements for LPG marketing companies • Insufficient financing for rural LPG	• **Market Limitation:** $300M potential market not served due to infrastructure gaps • **Rural Energy Deficit:** Limited clean cooking fuel access in rural areas	• **LPG Infrastructure Fund:** Specialized financing for storage and distribution network expansion • **Rural LPG Program:** Subsidized financing for rural LPG	• None	• **Market Expansion:** LPG available in 90% of districts nationwide • **Rural Access:** Clean cooking fuel access in remote areas	• LPG consumption increased by 50% • 2,000 new LPG retail outlets established • Rural LPG penetration increased to 40%	• LPG Companies • Rural Development Banks • OGRA

#	Issues	Cause	Cost to Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action By
Access to Finance								
		distribution networks		distribution infrastructure				
Technology Adoption								
3.1	**Enhanced Oil Recovery Technology**	• Limited implementation of advanced extraction techniques • Conventional extraction methods resulting in low recovery rates • Lack of technical expertise in EOR technologies	• **Production Loss:** $1B potential additional production from enhanced recovery techniques • **Resource Wastage:** Low recovery rates from existing oil fields	• **EOR Technology Program:** Implementation of advanced extraction technologies in existing fields • Technical Partnership: Collaboration with international EOR specialists for knowledge transfer	• PKR 560B (EOR Technology Implementation)	• **Production Enhancement:** 30% increase in recovery rates from existing oil fields • **Resource Optimization:** Maximum extraction from proven reserves	• Oil production increased by 20,000 bpd • Recovery rates improved from 25% to 40% • 10 EOR projects operational	• E&P Companies • International Technology Partners • Ministry of Energy
3.2	**Digital Infrastructure & Automation**	• Manual processes in gas distribution and monitoring • Lack of SCADA systems for pipeline monitoring • Limited use of IoT and smart	• **Operational Losses:** $400M annually from manual operations and inefficiencies • **Safety Risks:** Higher incident rates due to inadequate	• Digital Transformation Program: Implementation of SCADA systems, IoT monitoring, and automated operations	• PKR 280B (Digital Infrastructure & Automation Systems)	• **Operational Efficiency:** 30% improvement in operational efficiency and safety • **Real-time Monitoring:** 24/7 automated monitoring of	• 90% of gas network digitally monitored • Operational incidents reduced by 50% • $200M annual savings from automation	• SNGPL • SSGCL • Technology Providers

#	Issues	Cause	Cost to Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action By
Technology Adoption								
		technologies in operations	monitoring systems	• **Smart Grid Integration:** Digital integration of gas distribution networks		gas infrastructure		
Human Resource Issues								
4.1	**Technical Skills Gap in Energy Sector**	• Limited specialized training programs for oil & gas professionals• Insufficient technical expertise in modern petroleum technologies • Weak linkages between academia and industry for skill development	• **Productivity Loss:** $800M annually due to inadequate technical expertise • **Technology Dependence:** Heavy reliance on foreign experts increasing operational costs	• **Energy Skills Development Program:** Comprehensive training for oil & gas professionals in partnership with international institutions • Joint certification programs and research initiatives	• PKR 75-100 Bil (Skills Development & Training Infrastructure)	• **Local Expertise:** 80% reduction in foreign expert dependence • **Productivity Enhancement:** Improved operational efficiency through skilled workforce	• 10,000 certified energy professionals annually • 50 industry-academia partnership programs • Technical training completion rate >85%	• Ministry of Energy • Technical Training Institutes • Universities • International Partners
4.2	**Research & Development Capacity**	• Limited R&D investment in energy sector • Weak research institutions focusing on petroleum and	• **Innovation Deficit:** $200M annual loss from lack of indigenous technology solutions	• Energy R&D Enhancement: Establishment of specialized research centers for petroleum and	• PKR 140B (R&D Infrastructure & Innovation Programs)	• **Innovation Capacity:** Indigenous development of energy sector solutions	• 5 specialized energy research centers operational • 50 patents filed annually	• Universities • Research Institutions • Energy Companies • Ministry of Science & Technology

#	Issues	Cause	Cost to Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action By
Human Resource Issues								
		gas technologies • Insufficient indigenous technology development capabilities	• **Technology Dependence:** Complete reliance on imported technology and expertise	gas technologies • **Innovation Incentives:** R&D tax credits and grants for energy sector innovation		• **Technology Transfer:** Reduced dependence on foreign technology	in energy technologies • $100M private sector R&D investment	
Market Access & Development								
5.1	**Petroleum Product Export Development**	• Limited export-oriented refining capacity • Lack of export infrastructure and market linkages • Focus primarily on domestic market rather than export potential	• **Export Opportunity Loss:** $2B potential petroleum product exports not realized • **Value Addition Gap:** Missing opportunities in high-value petroleum products	• Export Hub Development: Export-oriented refinery capacity and infrastructure • International Market Access: Strategic partnerships for petroleum product exports	None	• **Export Growth:** $2B annual petroleum product exports • **Value Addition:** High-value petroleum product manufacturing	• 20% of refinery output exported • $2B annual petroleum product exports • Export infrastructure in 3 major ports	• Oil Refining Companies • Export Development Fund • Trade Bodies
Tax Structure								
6.1	**Petroleum Levy & Tax Optimization**	• High petroleum levy affecting fuel affordability and competitiveness	• Competitiveness Loss: $800M annual impact on industrial and transport costs	• **Petroleum Tax Rationalization** Optimized levy structure balancing revenue and	• Would need a change to taxation measures via legal and administrative changes	• **Cost Competitiveness:** Reduced fuel costs improving industrial and transport	• 15% reduction in fuel costs • $2B additional refinery investment • Refining capacity	• Federal Board of Revenue • Ministry of Finance • Petroleum Companies

#	Issues	Cause	Cost to Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action By
Tax Structure								
6.1	**Petroleum Levy & Tax Optimization**	• Complex tax structure discouraging investment in downstream sector	• **Investment Deterrent:** Reduced incentive for domestic refining investment	competitiveness • **Refining Incentives:** Tax breaks for domestic refinery capacity expansion		competitiveness • **Investment Attraction:** Enhanced domestic refining investment	increased by 200,000 bpd	
6.2	**Gas Sector Tax Incentives**	• Limited tax incentives for gas exploration and development • High tax burden on gas infrastructure development • Inadequate depletion allowances for E&P companies	• **Exploration Decline:** $1B annual impact from reduced exploration activity • **Production Loss:** Declining domestic gas production due to investment constraints	• **Gas Development Tax Package:** Enhanced depletion allowances and exploration incentives • **Infrastructure Tax Relief:** Accelerated depreciation for gas pipeline and processing facilities	• PKR 168B (Gas Sector Tax Incentives)	• **Exploration Revival:** Increased domestic gas exploration and development activity • **Production Enhancement:** Higher domestic gas production reducing import dependency	• 50% increase in exploration wells • Gas production increased by 500 MMCFD • $1B annual E&P investment	• Federal Board of Revenue • E&P Companies • Gas Infrastructure Companies

Investment Summary

There is, as such, no stock of public sector investment in O&G in Annual Plan 2025-26. The average credit flow to this sector is around Rs. 516 billion yearly over the last 5 years.

Year-wise Investment Summary *(PKR Billion)*

Category	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Policy & Regulatory Issues						**1,260**
1.3 Cross-Border Energy Framework	40	100	200	250	250	840
1.4 Environmental Compliance Framework	45	50	75	125	125	420
Access to Finance						**1,400**
2.2 Infrastructure Investment	100	200	300	400	400	1,400
Technology Adoption						840
3.1 Enhanced Oil Recovery Technology	20	40	100	200	200	560
3.2 Digital Infrastructure & Automation	30	50	50	75	75	**280**
Human Resource Issues						240
4.1 Skills Development and Training	10	20	30	20	20	100
4.2 R&D Infrastructure & Innovation Programs	20	25	25	35	35	140
Market Access & Development						**-**
Tax Structure						**135**
Gas Sector Tax Incentives	20	25	25	30	35	135
Total	**335**	**600**	**955**	**1,410**	**1,415**	**4,715**

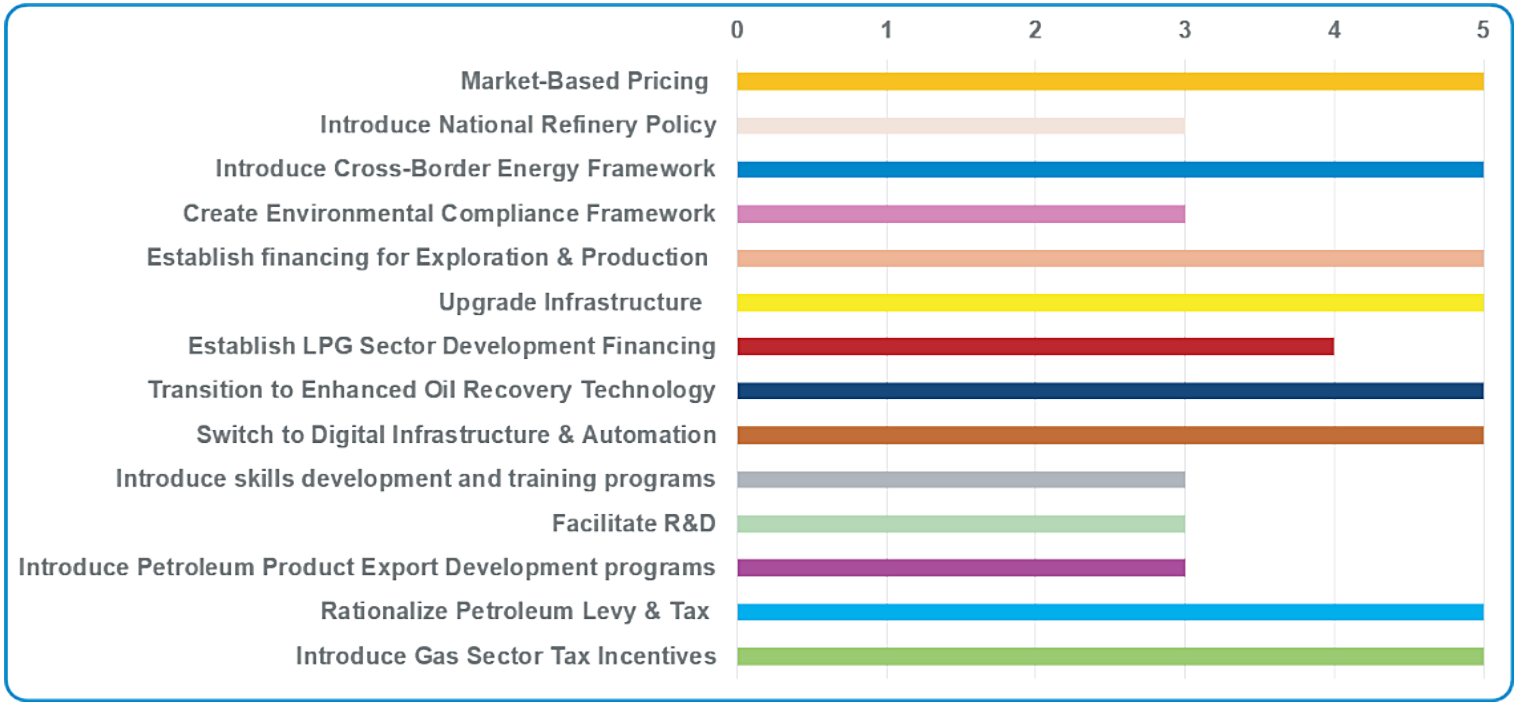
**Proposed interventions based investment estimates*

Investment Multiplier

The multiplier impact of investment in Pakistan differs by different studies. Majority of studies have been done in context of PSDPs impact since it tends to be the largest portion of investment on aggregate (there is little in terms of estimates of private investment multiplier). However, there is no unanimity in terms of the size of multiplier. Almost all studies put it below 1, between 0.5 and 1. We will use 0.6 as the multiplier of investment based on these studies.

The investment multiplier value for the power sector is Rs.2,829 billion spanned over 5 years.

Year-wise Interventions in Energy (Gas) Sector



Conclusion

Pakistan's gas and petroleum sector remains a cornerstone of national energy security but is increasingly constrained by structural inefficiencies, import dependence, and declining domestic production. Addressing these challenges requires a balanced approach that combines immediate regulatory and pricing reforms with long-term investments in infrastructure, exploration, and technological innovation. Strengthening domestic capabilities, modernizing pipelines, and fostering regional energy cooperation can significantly enhance resilience and competitiveness. Ultimately, sustained policy commitment and coordinated governance will be essential to ensure a secure, efficient, and self-reliant energy future for Pakistan.

DIGITAL ECONOMY

Key Statistics

Current Performance (FY25):

- **IT Exports:** $3.8 billion[39] (18 % increase in FY25)
- **IT exports by Freelancers and remote workers:** $793.5 million in FY25
- **Total IT & ITES Companies:** 30,000+ (registered with SECP as of March 2025)
- **Market Growth Rate:** 18% annually (FY25 performance)
- **Domestic IT Market Size:** Estimated $2.8 billion (2025)

Global Context & Rankings:

- **Kearney 2023:** World's most attractive position in IT outsourcing
- **ILO Recognition:** Second-largest provider of digital labor globally

Innovation & Research Infrastructure:

- **Startup Investment:** Rs 30.8 billion total funding
- **Jobs Created:** 185,000+ jobs through startup ecosystem
- **Women in IT:** Only 18% of overall IT workforce
- **Revenue Generated:** Rs 27.3 billion combined from innovation programs
- **Patent Activity:** Limited innovation focus, heavy reliance on technology adaptation

Infrastructure & Connectivity:

- **Broadband Subscribers:** 147.2 million (March 2025)
- **Broadband Penetration:** 59.8%
- **Total Telecom Subscribers:** 199.99 million (Mobile and Fixed)
- **Telecom Revenues:** Rs 803 billion (FY25, July-March)
- **Data Consumption:** 27,897 petabytes (FY25 estimated)

Human Resource & Training:

- **Professionals Trained:** 6,400 in advanced technologies (FY25)
- **Interns Placed:** 2,700+ with 70% retention rate
- **DigiSkills.pk:** 4.55 million total trainees (28% female, 50,000+ overseas Pakistanis)
- **IGNITE Performance:** 1,900+ startups incubated, 960+ graduated successfully
- **Unfilled Positions:** 88,000+ job openings across IT industry

[39] *FY25 IT exports reach $3.8bn, June posts record $338m*

Strategic Importance

As of early 2026, Pakistan's digital economy has emerged as a high-velocity strategic necessity, serving as a reliable earner of foreign exchange and economic modernization. The sector's importance is underscored by its ability to bypass traditional industrial bottlenecks, achieving a record $3.8 billion in IT exports in FY25. By anchoring the "Digital Nation Pakistan" initiative, the sector is not only stabilizing the current account through consistent remittances but is also driving systemic productivity across agriculture, finance, and governance, positioning Pakistan as a competitive innovation hub in the regional tech value chain.

Digital Economy sector has shown remarkable growth over the past two decades. From a modest volume of approximately $100 million in 2000, it expanded to $1–2 billion by 2010 and reached an estimated $12–15 billion in 2023. In the early 2000s, the digital economy contributed 0.1 percent to GDP which was negligible. By 2010, this share grew to 0.5 percent, and by 2020, it had reached 1–1.5 percent. Today, Pakistan's digital sector directly contributes 1.5 percent to Pakistan's nominal GDP. Looking ahead, this share is expected to climb to 5–7 percent by 2030 and could potentially reach 15–25 percent of GDP by 2035.[40]

Key Challenges

- **Digital Infrastructure Fragility:** Frequent internet shutdowns, network disruptions, and firewall-induced slowdowns impose a direct and quantifiable cost on Pakistan's digital economy.
- **Tax Regime Distortions Affecting the IT Workforce:** The absence of precise legal definitions distinguishing remote workers from freelancers has created a structural tax arbitrage that distorts Pakistan's IT labor market.
- **Chronic Skills Gap:** An outdated academic curriculum fails to produce industry-ready graduates, forcing elite talent to operate as "digital exiles" seeking foreign employment.
- **Weak Domestic Foundation:** Unlike regional peers, Pakistan bypassed cultivating a robust internal digital market, missing the chance to develop high-end intellectual property and quality benchmarks.
- **Low-Value Positioning:** A premature focus on exports has inadvertently positioned the country as a low-cost, labor-intensive outsourcing destination rather than a provider of high-value scalable products.
- **Financing & Liquidity Barriers:** Significant gaps in startup and SME financing persist, compounded by historical difficulties in profit repatriation for foreign investors.
- **Innovation Bottlenecks:** A lack of consistent R&D tax incentives and a shortage of specialized professional certifications prevent the sector from expanding its global market share.

[40] *https://file.pide.org.pk/pdfpideinpress/pip-pakistans-digital-leap-trillion-dollar-opportunity.pdf*

Reform Proposals

Long Term

- **Policy Institutionalization:** Enact a National Integrated Digital Economy Policy to move toward a stable, pro-growth regulatory environment.
- **Governance Overhaul:** Establish a Representative Digital Economy Coordination Commission comprising industry leaders, academia, and state officials to ensure policy consistency across different government tenures.
- **Scaling Digital Public Infrastructure (DPI):** Expand national Digital Public Infrastructure to streamline e-payments, digital identity, and data sharing.
- **Domestic Market Cultivation:** Shift the industry focus from labor-intensive outsourcing by building a robust internal digital ecosystem that serves as a testing ground for global products.

Short Term

- **Enhancing Remittance Limits:** Raise the monthly freelancer remittance limit from $25,000 to $100,000 to align with 2026 global market rates and discourage the use of informal channels.
- **Fiscal Continuity & Incentives:** Abolish the 0.25% final withholding tax for PSEB-registered exporters to provide long-term tax visibility and encourage formal corporate registration.
- **Foreign Currency Retention:** Enhance the Exporter's Special Foreign Currency Accounts (ESFCA) framework by maintaining retention at 50% or $5,000/month or ideally doubling these thresholds to facilitate international software subscriptions and marketing costs.
- **Investment Safeguards:** Establish a Foreign Exchange Liquidity Support Window and a transparent Repatriation Policy Framework to guarantee that foreign investors can exit or move profits without bureaucratic friction.

Analytical Framework

The Digital Economy sector encompasses sub-sectors such as Artificial Intelligence and emerging technologies, Digital Public Infrastructure (DPI), Digital Payments, Software Development, and IT-enabled services, all addressed within this unified framework.

#	Issues	Cause	Cost to Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action By
Policy & Regulatory Issues								
1.1	**Digital Infrastructure, Regulatory Framework**	• Although 5G has been rolled out, it's highly unlikely to be effective outside of main cities, and quality of services (speed, signals, etc.) still remain a huge concern. • National Fiberization Plan still under development with World Bank • Digital payment infrastructure seriously lacking - only 6% retail transactions digital	• Competitive Disadvantage: Falling behind regional competitors in 5G deployment • Business Impact: Limited ability to offer advanced digital services • FDI Impact: Reduced foreign investment attractiveness • Poor quality internet and cell coverage outside of main cities, with frequent outages	• Accelerate National Fiberization Plan implementation • Complete 5G infrastructure development for launch • Expand Digital Public Infrastructure (DPI) nationwide • Ensure quality IT services nationwide, especially outside main cities • Penalties for failure to maintain minimum service and quality standards	• No investment required	• **5G Services:** Commercial launch enabling Industry 4.0 applications • **Infrastructure Capacity:** Support growing data consumption needs • **Digital Payment Growth:** Substantial increase from current 6% digital transactions • Improved quality of internet and cell services across the nation	• 5G network coverage percentage • Fiber optic network expansion (km deployed) • Digital payment transaction volume • Rural area connectivity coverage	• Pakistan Telecommunication Authority (PTA) • Universal Service Fund (USF) • National Telecommunication Corporation (NTC) • Ministry of IT & Telecom

#	Issues	Cause	Cost to Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action By
Policy & Regulatory Issues								
1.2	**Export Facilitation & Trade Policy**	• Despite holding one of world's most attractive IT outsourcing position (Kearney 2023), Pakistan has limited international marketing presence • Only 256 companies participated in 15 international events generating merely $48 million business • Insufficient participation in high-value international trade events	• **Export Potential Unrealized:** Current $3.8 billion exports far below potential given Pakistan's global ranking • **Contract Access:** Limited access to high-value international contracts and partnerships • **Business Generation:** Low ROI from current international marketing efforts	• Scale up Tech Destination Pakistan campaign nationally and internationally • Facilitate IT firm participation in premium international trade events • Academia and entrepreneurial links for growth of domestic firms and access to international markets • Launch comprehensive digital marketing and podcasting initiatives	• No investment required	• **Export Growth:** Progression toward $10 billion annual export target • **International Recognition:** Enhanced global brand positioning for Pakistan IT • **Market Access:** Better access to high-value international contracts	• Annual export growth rate • Number of international event participation • Business deals value generated from marketing • International market share expansion • Global brand recognition and awareness metrics • Increased coordination between academia and firms like those in Silicon Valley, bringing in more business and ideas	• Pakistan Software Export Board (PSEB) • Trade Development Authority of Pakistan (TDAP) • Ministry of Commerce • P@SHA • IT Companies • Pakistani diplomatic missions abroad
1.3	**Difficulty in Profit Repatriation**	• Persistent current account deficits and declining dollar reserves compel SBP	• Freelancers and companies retain their earnings abroad rather	• Raise the monthly freelancer remittance limit from $25,000 to $100,000 to	• No investment required	• Reduced Processing Time for profit repatriation approvals • Strict supervision	• Reduced repatriation time • Smoother repatriation flow even	• State Bank of Pakistan (SBP), • Board of Investment (BOI),

#	Issues	Cause	Cost to Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action By
Policy & Regulatory Issues								
		to implement informal repatriation controls, making it difficult to take out dollars from Pakistan • Lack of transparent approval criteria and discretionary decision-making hinder both capital inflows and outflows	than bringing those home • Persistent issues in repatriating profits are a major hindrance to probable investors, and many MNCs have cited this issue as one primary reason for leaving Pakistan, which deter possible FDI and accompanying job creation	align with 2026 global market rates and discourage the use of informal channels. • Introduce a clear Repatriation Policy Framework • Codify timelines and approval procedures under SBP/BOI coordination, ensuring transparency. • Establish a Foreign Exchange Liquidity Support Window to facilitate smoother fund repatriation		and penalties by SBP over commercial banks indulging in delaying tactics vis a vis repatriation, which occurs frequently • Improved Investor Confidence, leading to higher net FDI inflows	during times of CA distress • Annual FDI Inflows (USD) increase within two years of reforms. • Number of approved repatriation requests	• Federal Board of Revenue (FBR)
1.4	**Adverse outcomes due to differential**	• Tax rate upon firm workers that categorize themselves as 'freelancer' is almost non-	• Makes hiring local talent less competitive compared to	• Close this differential taxation loophole and implement a uniform tax to	• No investment required	• Enhanced tax collection • Local companies hiring more	• Number of employees hired by local firms • Tax revenue generated	• FBR • MoITT • Finance Division

#	Issues	Cause	Cost to Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action By
Policy & Regulatory Issues								
1.4	**Adverse outcomes due to differential tax treatment of IT workers**	existent, while domestic salaried employees in the sector face tax rates of up to 35% on their income	international firms • Leads to domestic firms preferring registration abroad (like Dubai) so that employees can be easily declared freelancers, thus obviating domestic tax obligation • Loss of potential jobs and services generated at home • Reports of companies from other fields taking advantage of this loophole, like real estate companies registering as IT companies and declaring workers as freelancers to avoid paying taxes	discourage adverse/ fraudulent behavior • The taxation methodology should be simple, total final earnings to be taxed regardless of employee categorization • Any strategy should clearly differentiate between true freelancers, who bring remittances to the country and is a booming sector, and the workers of a registered firm who guise themselves as 'freelancers' to avoid taxes		domestic talent • Higher number of IT companies registering within the country	from the IT sector • Total number of domestically registered IT companies	

#	Issues	Cause	Cost to Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action By
Policy & Regulatory Issues								
			• Leads to loss of potential tax revenue and limits the growth and scalability of local businesses	•				
Access to Finance								
2.1	**Startup & SME Financing Gap**	• IGNITE has incubated 1,900+ startups but only 960+ graduated successfully • Despite 185,000+ jobs created by startups, scaling remains problematic • Limited venture capital and angel investment infrastructure	• **Scaling Challenge:** Despite significant job creation, startup scaling success rate needs improvement • **Funding Gap:** Insufficient growth-stage financing for IT startups • **Market Position:** Limited access to international venture capital	• Scale successful IGNITE model with enhanced funding • Strengthen venture capital ecosystem • Create technology commercialization centers • Establish IT-focused investment funds	• No investment required	• **Ecosystem Strengthening:** Improved startup success rates • Global Recognition: Pakistan as inclusive IT destination • **Economic Empowerment:** Increased contribution to IT exports	• Startup scaling success rate • Venture capital investment volume • Technology commercialization rate • International recognition metrics	• IGNITE-National Technology Fund • PSEB • Venture capital firms • Commercial banks • State Bank of Pakistan
2.2	**Technology Upgrade & R&D Financing**	• Limited R&D investment in IT sector • Academic research not oriented towards	• **Innovation Deficit:** Missing opportunities in emerging technology markets	• Create joint ventures between academia and industry	• No investment required	• **Research Commercialization:** University research converted to	• University-industry collaboration projects • Patents converted to	• IGNITE-National Technology Fund • Higher Education

#	Issues	Cause	Cost to Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action By
Access to Finance								
		commercialization • Weak linkages between research institutions and commercial applications	• Limited Indigenous Technology Solutions: Heavy dependence on technology imports • **Commercialization Gap:** University research not converted to marketable products	• Establish technology transfer funds • Implement R&D tax credits and grants • Launch technology commercialization financing schemes		marketable products • **Technology Transfer:** Enhanced academia-industry collaboration • **Innovation Improvement :** More diverse and inclusive technology solutions	commercial products • R&D investment levels • Technology transfer success rate	Commission (HEC) • Universities • Research institutions • IT Companies
Technology Adoption								
3.1	**AI & Emerging Technology Integration**	• Only 6,400 professionals trained in advanced technologies during FY 2025 - far below industry needs • Limited access to cutting-edge technology training programs • Outdated curricula not aligned with global tech trends	• **Missing Opportunities :** Limited penetration in high-value emerging technology markets • **Skills Gap:** Insufficient expertise in AI, blockchain, quantum computing • **Reduced Competitiveness:** Falling behind in global IT outsourcing	• Introduce specialized advanced technology certification programs • Partner with global tech companies and leading Universities, AI platforms/departments for training • Create AI and emerging technology centers of excellence	• No investment required	• Quantity of trained professionals as per industry demand, as well as those with high-quality, globally competitive AI skills • Enhanced global competitiveness in emerging tech • Enhanced domestic technology development	• Number of individuals trained in advanced technologies • Global and local placement rate of Pakistani IT and AI individuals in high-value tech roles • Export growth in emerging technology services	• MoITT • IGNITE-National Technology Fund • Private Training Partners • Universities • Global tech companies • PSEB

#	Issues	Cause	Cost to Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action By
Technology Adoption								
			advanced services	• Scale up e-Rozgar centers to 250 by FY2027			• AI/ML project implementations	
3.2	**E-Government & Digital Services Platform**	• Limited digitization of government services • Poor integration between government departments • Inadequate digital service delivery to citizens and businesses	• **Administrative Inefficiency:** Manual processes increasing business costs • Service Delivery Gap: Poor citizen experience with government services • Competitive Disadvantage: Regional competitors offering better digital government services	• Implement comprehensive e-government platform • Create single digital window for all government services	• No investment required	• **Digital Government Services:** Limited need for physical presence or travel to offices to avail government services • **Business Facilitation:** Reduced compliance time and costs • **Citizen Experience:** Enhanced service delivery efficiency	• Percentage of services digitized • Average service delivery time reduction • Citizen satisfaction scores • Business registration time reduction	• Ministry of IT & Telecom • Federal and Provincial Governments • National Database and Registration Authority (NADRA) • PSEB • IT Companies

#	Issues	Cause	Cost to Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action By
Human Resource Issues								
4.1	**Professional Certification & Standards**	• Limited international certification programs • Lack of standardized professional development frameworks • Insufficient continuing education infrastructure • International, high caliber certifications are expensive	• **Global Competitiveness:** Pakistani professionals lacking internationally recognized certifications • Quality Standards: Inconsistent skill levels affecting service quality • Career Development: Limited professional advancement opportunities due to small domestic market and difficulties in accessing international opportunities	• Establish international certification partnership programs • Create continuing professional development frameworks • Launch industry-standard certification programs • Implement professional competency assessment systems	• No investment required	• **International Recognition:** Pakistani IT professionals with global certifications • **Quality Improvement :** Standardized skill levels across industry • Career Advancement: Enhanced professional development opportunities	• Number of internationally certified professionals • Professional certification completion rates; Industry skill assessment scores • Career advancement metrics	• PSEB • P@SHA • International certification bodies • Training institutes • IT Companies

#	Issues	Cause	Cost to Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action By
Market Access & Development								
5.1	**High-Value Service Export Development**	• Pakistan's IT sector heavily relies on adapting existing technologies rather than innovation • Limited value addition keeping Pakistan in lower-tier of global IT supply chain • Heavy reliance on generic services rather than specialized high-value offerings	• **Value Chain Position:** Limited presence in high-value IT services markets • **Competitive Gap:** Reduced ability to compete in premium service segments • **Innovation Deficit:** Missing opportunities in emerging technologies (AI, blockchain, quantum computing)	• Create specialized high-value service development programs • Establish centers of excellence for emerging technologies • Launch innovation-driven service development initiatives • Implement premium service quality certification programs	• No investment required	• Value Addition: Higher-value IT services and products • **Premium Market Access:** Entry into high-value international markets • **Innovation Capacity:** Enhanced domestic technology development	• High-value service export percentage • Premium market penetration metrics • Innovation-driven service revenue • International quality certifications achieved	• MoITT • IGNITE-National Technology Fund • PSEB • P@SHA • IT Companies • International quality certification bodies
Tax Structure								
6.1	**R&D & Innovation Tax Incentives**	• Limited tax incentives for IT R&D investment discouraging innovation • Tax structure not supporting transition from generic to	• **Innovation Deterrent**: Tax structure not supporting R&D investment • **Competitive Gap:** Limited incentives for transitioning to high-value	• Make use of Universal Service Fund (USF) for R&D and innovation in AI • Create Innovation Tax Credits for patent applications	• No investment required	• Increased private sector R&D investment in IT • **Innovation Capacity:** Enhanced domestic technology development	• Private sector R&D expenditure • Tax incentive utilization rates • Patent applications and grants	• Ministry of Finance • Pakistan Council for Science & Technology • Federal Board of Revenue • IT Companies • Research institutions

#	Issues	Cause	Cost to Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action By
Tax Structure								
		innovative IT services • Lack of comprehensive innovation tax credit system	innovative services • **Investment Barrier:** Poor tax support for technology development	• Initiate competitive monetary rewards for the best AI related ideas coming from domestic universities		• **Patent Activity:** Increased intellectual property development	• Innovation investment levels	
6.2	**Import Duty & Technology Equipment**	• High import duties on IT equipment and software increasing operational costs • Complex customs procedures for technology imports • Inadequate duty exemptions for export-oriented IT companies	• **Cost Disadvantage:** Import duties making Pakistani IT services less competitive • **Operational Burden:** Complex import procedures increasing business costs • **Technology Access:** • High duties limiting access to latest technological equipment	• Rationalize Import Duties on IT Equipment and Software • Create Duty-Free Import Facility for export-oriented IT companies • Implement digital customs procedures for technology imports • Establish technology equipment financing schemes	• No investment required	• Reduced IT operational costs • **Enhanced Technology Access:** Better access to latest equipment and software • Export Competitiveness: Improved cost structure for IT exports	• Technology import cost reduction • Import procedure efficiency • Export-oriented company registrations • Technology equipment adoption rates	• Federal Board of Revenue • Ministry of Commerce • Pakistan Customs • IT Companies

Investment Summary

The total stock of PSDP investment earmarked for this sector since 2019 is Rs. 87 billion, 782 million, of which only Rs. 19.5 billion has been spent, leaving Rs. 66 billion yet to be spent (with a further proposition of Rs. 1 billion, 664 million). Any program/initiative stated above needing public sector investment can be sourced from the stock of earmarked investment in PSDP.

Year-wise Investment Summary *(PKR Billion)*

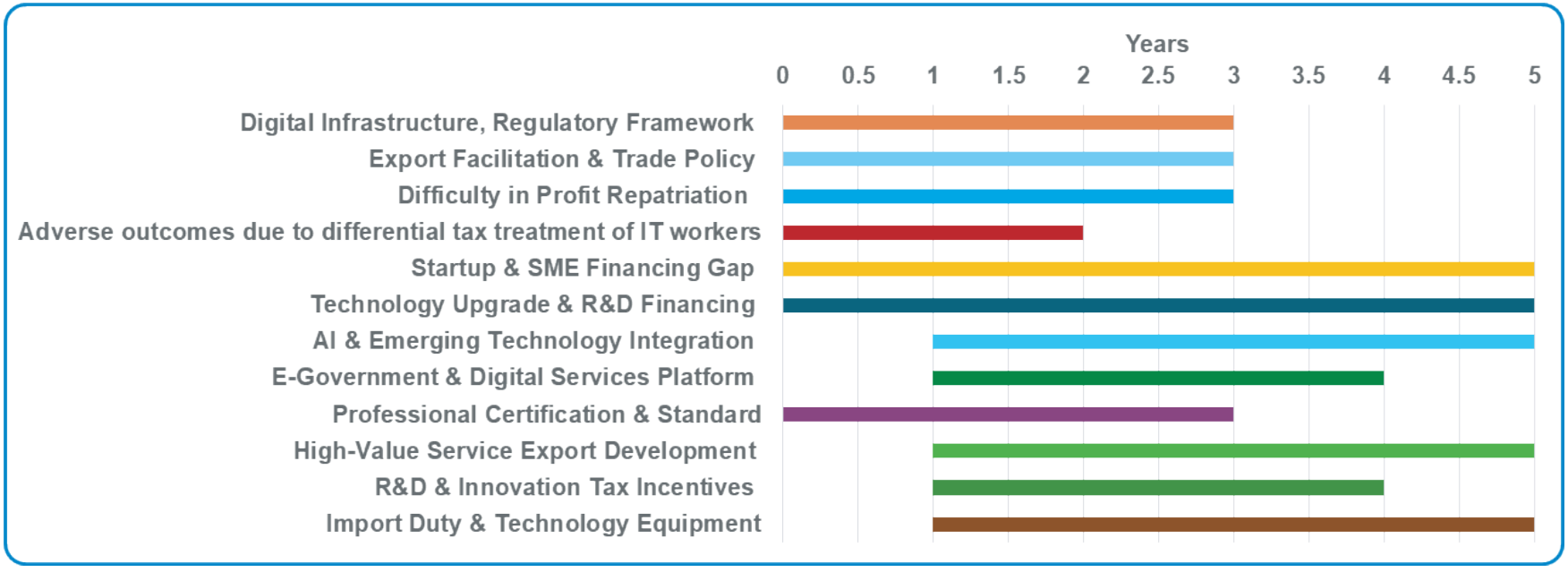
	Year 1	Year 2	Year 3	Year 4	Year 5	Total
PSDP Stock yet to be spent	6	10	15	15	20	66

**Proposed interventions based investment estimates*

Investment Multiplier

The multiplier impact of investment in Pakistan differs by different studies. Majority of studies have been done in context of PSDP's impact since it tends to be the largest portion of investment on aggregate (there is little in terms of estimates of private investment multiplier). However, there is no unanimity in terms of the size of the multiplier. Almost all studies put it below 1, between 0.5 and 1. We will use 0.6 as the multiplier of investment based on these studies. Therefore, the investment multiplier for this sector, Digital Economy, is PKR 39.6 billion

Year-wise Interventions in Digital Economy Sector



Conclusion

In conclusion, Pakistan’s digital economy stands at a crossroads where its globally integrated talent is increasingly hindered by an unstable domestic policy and infrastructure landscape. Realizing the sector's multi-billion-dollar potential requires a decisive shift from a low-cost outsourcing model toward a high-value, IP-driven ecosystem supported by consistent fiscal incentives and secure digital rights. By institutionalizing these reforms, Pakistan can stop the flight of "digital exiles" and finally bridge the gap between its raw human capital and sustainable, institutionalized economic growth.

HOUSING & CONSTRUCTION

Key Statistics

Current Performance (FY25):

- **Housing Deficit:** 10 million units and growing
- **Real Growth:** -1.5% (vs nominal 14.5% in FY24)
- **Sector Contribution:** 2.2% of GDP
- **Annual Demand-Supply Gap:** 250,000-450,000 units (demand 700,000 vs supply 350,000)

Global Market Position:

- **Global Real Estate Market:** $7.84 trillion by 2033
- **Mortgage-to-GDP Ratio:** 0.3% (vs India 11%, Bangladesh 3%)
- **Regional Comparison:** Transaction costs 8-11% (vs India 5-7%, Bangladesh 6-7%)

Budget FY26 Achievements:

- **FED Abolished:** 7% FED on commercial property transfers eliminated
- **Section 236C Reduced:** 4%→2.5%, 3.5%→2%, 3%→1.5% (partial relief)
- **Stamp Duty:** Reduced from 4% to 1% in Islamabad
- **Tax Credit:** Available for houses ≤2,500 sq ft, flats ≤2,000 sq ft (max PKR 2M)
- **MPMG Revival:** Government committed, SBP may provide concessional financing

Industry Performance

- **Allied Industries:** 72 operating at 30-40% capacity
- **Employment:** 7.61% of labor force
- **Bank Credit Allocation:** 1.6% to construction (vs 5% benchmark)
- **Capital Outflow:** $10-12 billion annually to Middle East

Strategic Importance

The Housing & Construction sector contributes 2.2% of GDP, employs 7.61% of the labor force, and sustains 72 allied industries, making it one of Pakistan's most economically interconnected sectors. Yet it operates far below potential. Pakistan's mortgage-to-GDP ratio stands at just 0.3%, against 11% in India and 3% in Bangladesh, while transaction costs of 8–11% exceed regional benchmarks of 5–7%. Against a global real estate market projected at $7.84 trillion by 2033, these gaps represent a significant unrealized opportunity. Meanwhile, $10–12 billion exits Pakistan annually in capital outflows to destinations like Dubai, a direct consequence of an inhospitable domestic investment climate.

A housing deficit of 10 million units, widening by 250,000–450,000 units annually against demand of 700,000 units and supply of only 350,000, reflects both a social imperative and an untapped economic driver. A robust construction sector stimulates activity across 72 allied industries, expands employment, and raises the sector's contribution to both GDP and foreign exchange stability.

Key Challenges

- **Tax Asymmetry:** Seller advance tax was simultaneously raised to 4.5–5.5%, offsetting buyer-side relief. Section 236K and Section 7E remain unaddressed. Stamp duty reform covers only Islamabad; other provinces remain at 4%, distorting capital flows regionally.
- **Regulatory Burden:** Complex approvals impose costs exceeding 1% of GDP. Absent land development frameworks fuel horizontal sprawl, agricultural land loss, and recurring housing society fraud.
- **Finance Access:** Public housing schemes stall repeatedly due to financing discontinuity. Mortgage penetration at 0.3% of GDP is critically low against a 2–3% target.
- **Digitalization Gap:** Cash-based, file-driven property transactions dominate. Digital land registries exist but are underutilized, leaving courts flooded with ownership disputes and enabling capital flight.
- **Workforce Deficits:** Shortage of modern construction skills creates a 20–30% cost premium versus regional competitors. Female workforce participation remains negligible.

Reform Proposals

Long Term

- **Expand mortgage financing and Ensure SBP scheme disbursement** financing continuity must be insulated from government changes.
- **Set mandatory time-bound building approval timelines;** incentivize vertical expansion; ringfence locality boundaries to curtail horizontal sprawl.
- **Raise bank credit to construction from 1.6% to 5%,** unlock through credit guarantees and collateral reform to retain domestic capital.
- **Mandate full digitalization of housing transactions;** ban file-based property transfers; integrate land registries across all federal and provincial departments.
- **Rationalize energy tariffs** for industrial and construction users, stabilizing energy costs will directly compress input prices across materials, logistics, and on-site operations.
- **Expand NAVTTC and TEVTA construction trades programs** while embedding gender-inclusive enrollment targets to close the skills gap and erode the 20–30% cost premium against regional competitors.

Short Term

- **Tax Amnesty Scheme:** Short term time-bound amnesty to repatriate overseas Pakistani capital and attract Middle Eastern funds displaced by conflict, construction sector as the designated safe haven for incoming foreign investment
- **Revival of Housing & Construction will activate 72 allied industries,** currently operating at 30–40% capacity, their revival will generate mass employment and stimulate economic activity across the value chain.
- **Critical Tax Reforms:** Rationalize 236K (buyer tax 1.5% → 0.5%), 7E & 236C (seller tax 4.5% → 0.5%), asymmetric treatment is actively deterring capital deployment
- **Standardize stamp duty across all provinces —** Islamabad at **1%** vs. rest at **4%** is distorting investment flows nationally.

Analytical Framework

The Housing & Construction sector encompasses sub-sectors such as affordable housing, urban development, industrial parks, green building, and real estate finance, all addressed within this unified framework.

#	Issues	Sub-issues	Cause	Cost to Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action By
Policy & Regulatory Issues									
1.1	**Policy and Regulatory burden due to asymmetry in policies**	Seller Tax & Buyer Tax	Advance tax on sale increased significantly (3-4% → 4.5-5.5%) creating seller disincentive	**Seller Market Exit:** Higher seller taxes deterring property owners from selling	Reduce seller and buyer tax to flat 0.5% for market balance	None. Only Cabinet approval for lowering taxes	**Market Liquidity Restoration:** Balanced tax treatment increasing transaction volumes	Property transaction volume growth	Federal Board of Revenue (FBR)
		Provincial Tax Disparities	Only Islamabad stamp duty reduced to 1%, other provinces remain at 4%	• Capital moving to Islamabad due to lower stamp duty, distorting regional development • Moreover, loss of revenue as people transfer property under other methods (like Power of Attorney) that does not have any tax liability	Nationwide stamp duty standardization across all provinces and the Capital	None. Only Cabinet approval for lowering taxes	Picking up construction and real estate activity across the country, especially in regions hit hardest by increased duties on transfers (like KP)	• Provincial stamp duty harmonization • Pace of real estate and construction activity	Taxation department of Federal and Provincial Governments

#	Issues	Sub-issues	Cause	Cost to Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action By
Policy & Regulatory Issues									
				Increased flow of ill-begotten/ corruption mon ey to low tax/low duty destinations like Islamabad	Nationwide stamp duty standardization across all provinces and the Capital				
		Withholding Tax Issues	Buyer withholding tax (Section 236K) and deemed rental income tax (Section 7E) remain unaddressed	**Market Asymmetry:** Different tax treatment for buyers vs sellers creating transaction imbalances	Address Section 236K (buyer WHT) and Section 7E (deemed rental tax)	None. Only Cabinet approval for lowering taxes	Symmetric taxation restoring balance between sellers and buyers	The amount of taxation burden bore by sellers and buyers	Federal Board of Revenue (FBR)
1.2	**Regulatory Framework Gaps**	Building Approval Processes	Complex approval processes increasing project costs due to longer durations	• Regulatory 'sludge' costing builders and economy more than 1 percent of GDP[41] • High input prices drive up construction project costs significantly	Set a minimum timeline for approvals in accordance with set international standards of building	Would only need a change in relevant regulations, like in case of CDA	Streamlined, time-bound approvals reducing delays	Approval processing time	Federal and Provincial Governments

[41] *PIDE 'Sludge' audit series*

#	Issues	Sub-issues	Cause	Cost to Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action By
Policy & Regulatory Issues									
		Land Development Framework	• Absence of systematic land development framework, often leading to housing society type frauds • Continued horizontal expansion eating up valuable agricultural land • Illogical vertical expansion restrictions	• Frequent frauds in land development schemes, depriving people of their savings • Continued horizontal expansion lowers agricultural output and makes administering a locality difficult • Absence of high rises, which are a good investment attraction around the globe	• Ring fence locality's boundaries and allow/incentivize increased vertical expansion to discourage horizontal expansion • Limited role of public sector led land/ sectoral development that is biased towards horizontal expansion • Regulations aiming to incentivize quality in land development through competition among private sector builders	Would only need a change in relevant regulations, especially those concerning vertical expansion	• Increased number of high rises • Lesser horizontal expansion • Improved quality and maintenance of services	• Number of high rises (vertical) • Rate of horizontal expansion	Federal and Provincial Land Development Authorities

#	Issues	Sub-issues	Cause	Cost to Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action By
Policy & Regulatory Issues									
		Dispute Resolution Mechanisms	Lack of expedited dispute resolution for construction projects	**Regional Competitiveness Loss:** Higher construction costs vs regional competitors	Implement expedited dispute resolution mechanisms for construction projects	None	**Improved Project Timelines:** Streamlined approvals reducing delays	Land development projects: Number of systematic developments	Land development authorities at provincial and federal level
Access to Finance									
2.1	**Inadequate Financing for commercial construction and housing**	• Bank credit allocation • Difficulty in accessing credit for public sector schemes • Limited mortgage financing and one of the lowest mortgage to GDP ratio at 0.3%	• Only 1.6% to construction vs 5% global benchmark • Public sector construction, like housing schemes, once started, tend to fizzle out quickly, especially with change in government	• **Underutilization:** Construction sector at 30-40% capacity, meaning not only underutilization of existing resources but also lost opportunities in the sub-sectors upstream and downstream • Taxpayer expenditure on schemes that	• Analyze why banks are reluctant to finance construction activities (especially lack of rights of ownership and lack of collateral as an issue) • At government level, ensure continuity of financing for construction schemes over the	• Around 5-10 billion PKR for public housing schemes across the country, some of them stalled due to paucity of funds[42] • Diversion of PSDP funds from building public sector accommodations to public schemes for low-cost housing	• **Mortgage-to-GDP Growth:** Target 2-3% from current 0.3% • More PSDP towards completion of housing schemes for low-income strata who face the biggest hurdles in owning their own house	• Mortgage-to-GDP ratio: 2-3% • More individuals getting access to formal credit for housing construction • Completion of public sector housing schemes, especially those reserved for the poor • Improved credit scores	State Bank of Pakistan, Commercial banks, PACRA, Federal and Provincial governments

[42] *Estimates based on requirements for various schemes (stalled and in pipeline) to be completed, keeping in view the allocations made in PSDP*

#	Issues	Sub-issues	Cause	Cost to Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action By
Access to Finance									
				remain incomplete in the end, thus constituting a waste • Due to frequent issues in continuity of financing of public sector schemes, private sector becomes reluctant to partner in the schemes or take up construction projects • Flight of capital to destinations like Dubai	long run. Allocation mechanism should be such that change in government does not affect allocation • A strategy to improve credit scores of those who do not or have low collateral, in order for them to have a better chance at accessing formal credit	housing schemes for the poor and middle class	• Higher percentage of commercial bank credit going to housing and construction		

#	Issues	Sub-issues	Cause	Cost to Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action By
Technology Adoption									
3.1	**Technology & Digitalization Lag**	• Overall, digital Infrastructure absence in the property/real estate sector, where manual procedures still dominate, and making fraudulent transactions easier to conduct • A substantial electronic, online registry record system does exist at federal and provincial levels (barring Baluchistan).	• Opaque processes of giving approval to Housing schemes with no follow-up • Selling of 'files' as proof of property ownership, despite no allotment number, which makes tracking transactions difficult as files change hands frequently and mostly involve cash-based transactions	• Huge informal economy in housing and real estate sector • Loss of revenue due to cash-based transactions • Continuous cases of housing society frauds due to lack of technology application and tracking • Courts inundated with property related disputes that remain unresolved for long time, costing the investors a fortune	• Digitalizati-on of all processes related to housing and all transactions related to it • Ban on real estate related transactions through files to limit cash-based transactions and ameliorate unnecessary speculation	• Change in regulations related to nature of transactions in housing and real estate, which would not need any cost • A project of a few million rupees for bringing together related government institutions in terms of access to land records, preventing informal transactions and their enforcement.	• Digitalizati-on of transactions, with at least 75 percent transactions in informal sector covered in formal sector • Easily accessible and enforceable digital land registries • Resolution of cases related to land disputes and drop in percentage of land related disputes entering courts	• Extent of digitalization of real estate and housing transactions • Percentage of transactions in informal sectors • Accessibility, clarity and enforceability of land rights using digital records	FBR, Federal and Provincial housing plus revenue authorities

#	Issues	Sub-issues	Cause	Cost to Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action By
Technology Adoption									
		However, its benefits have not been realized as courts are still filled with legal disputes over ownership and forceful confiscations of land are still common	• Silo mentality working of various departments entrusted with looking after real estate and housing, with no combined access to electronic land registry record and no oversight in enforcing the rights	• Non-application of property rights and weak regulations incentivize outflow of capital to external destinations		Can easily be financed by PSDP outlays already earmarked for Housing & Works sector			
Human Resource Issues									
4.1	**Critical Skills & Workforce Deficits**	Modern Technique Gaps	Critical shortage in contemporary construction methods	**Regional Cost Disadvantage :** 20-30% premium vs competitors	Comprehensive vocational training through NAVTTC and TEVTA partnerships	Make use of the already existing technical training facilities	Higher quality, skilled workforce with globally acceptable certification	Better certified workforce, with skills and certifications comparable at global level	NAVTTC, TEVTA

#	Issues	Sub-issues	Cause	Cost to Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action By
Human Resource Issues									
4.2	**Workforce Inclusion & Safety**	Gender Workforce Exclusion	Minimal female participation in construction	**Talent Underutilization:** Missing significant workforce potential	Gender-inclusive workforce initiatives and flexible work arrangements	None	**Female Workforce Participation**	Female workforce participation	Construction Industry Associations
Market Access & Development									
5.1	**International Market Presence Deficit**	Limited Global Marketing and presence that could help the sector size expand domestically	Skill differentials via a large, untrained workforce	**High-Value Contract Exclusion and export revenue loss:** Missing premium international project opportunities and limited international construction service revenues	Strategic international trade event participation for construction sector	Optimize upon the already existing training facilities and international trade fairs facilitated by Commerce Ministry	**Construction Service Export Growth** to international markets	Annual construction export growth rate	Trade Development Authority (TDAP), Commerce Ministry, TEVTA/NAVTCC

#	Issues	Sub-issues	Cause	Cost to Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action By
Tax Structure									
6.1	**Tax Optimization Framework**	Housing Subsidy Utilization	Rs5 billion allocation requires optimization for maximum impact	**Inefficient Resource Allocation:** Suboptimal utilization limiting sector impact	Housing Subsidy Utilization: Optimize Rs5 billion allocation for maximum impact	None	**Market Efficiency:** Symmetric taxation eliminating artificial distortions	Housing subsidy utilization rate: Optimize Rs5B allocation	Federal Board of Revenue (FBR)
		Tax Credit Coverage	Limited scope of existing tax credits for affordable housing and vertical expansion	Lower than expected/potential investment in the sector despite factors like 250 million population and high demand	Expand implementation of existing tax credits for houses ≤2,500 sq ft, flats ≤2,000 sq ft, and tax credits/incentives for vertical expansion	Would need changes in tax regulations, which do not need much cost (if any)	Improved affordability through optimized tax structure, more vertical expansion to allow meeting housing demand	Incentive structure aimed at affordability, spurring investment and construction, and extent of vertical expansion in construction	Federal Board of Revenue (FBR), Housing ministries at federal and provincial levels

Investment Summary

The total stock of PSDP investment earmarked for Housing and Construction sector since 2019 is 79 billion, 995 million, of which only Rs. 43 billion has been spent, leaving Rs. 36.7 billion yet to be spent (with a further proposition of Rs. 768 million)[43]. Any program/initiative stated above needing public sector investment can be sourced from the stock of earmarked investment in PSDP. Moreover, the average take-up of credit for this sector in the last 5 years is around Rs. 210 billion, a number that would need to be kept in perspective so as to not let it fall below that.

[43] *PSDP 2025-26*

Year-wise Investment Summary

Inadequate Financing for commercial construction and housing- Around 5-10 billion PKR for public housing schemes across the country, some of them stalled due to paucity of funds.

Year-wise Investment Summary *(PKR Billion)*

Category	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Policy & Regulatory Issues						**10**
2.1 Inadequate Financing for commercial construction and housing	1	2	3	2	2	10
Access to Finance						**-**
Technology Adoption						**-**
Human Resource Issues						**-**
Market Access & Development						**-**
Tax Structure						**-**
Total	1	2	3	2	2	**10**

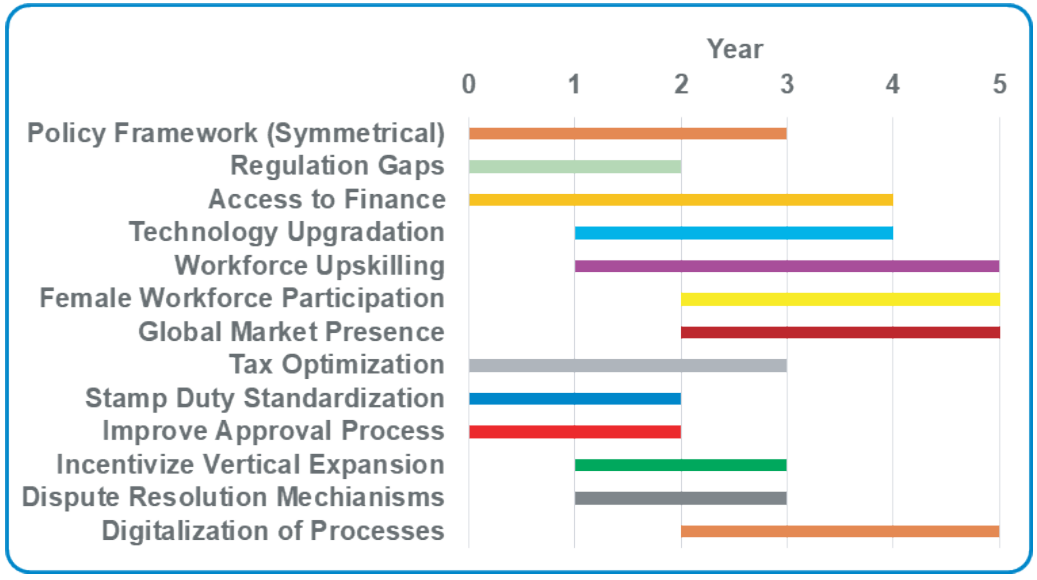
**Proposed interventions based investment estimates*

Investment Multiplier

The multiplier impact of investment in Pakistan varies across studies. Most research has focused on the Public Sector Development Programme (PSDP), as it constitutes the largest share of aggregate investment; there is limited evidence on private investment multipliers. However, there is no consensus on the precise size of the multiplier. Nearly all studies estimate it to be below 1, typically ranging between 0.5 and 1. For this analysis, we adopt a multiplier of 0.6, consistent with the prevailing findings in the literature.

The required investment is PKR 10 billion, which—when multiplied by the investment multiplier of 0.6—yields an impact of PKR 6 billion.

Year-wise Interventions in Housing & Construction Sector



Conclusion

Pakistan's housing crisis is structural, not cyclical, and the distance between a 0.3% mortgage-to-GDP ratio and the sector's true potential is, again, a policy gap. Short-term interventions — tax rationalization on 236K and 7E, a time-bound amnesty to repatriate overseas capital, and stamp duty standardization across provinces — can unlock immediate capital deployment and arrest the $10–12 billion in annual outflows. The longer-term reforms in mortgage financing, digital land registries, vertical development incentives, and skills development are what will determine whether the sector can sustainably close a 10-million-unit deficit and activate the 72 allied industries currently operating at 30–40% capacity. The binding constraint is policy consistency, not fiscal capacity, and continued asymmetric, fragmented regulation will only deepen the crisis.

TEXTILES & APPAREL

Key Statistics

Current Performance (FY25):

- **Textile Exports:** $17.88 billion (7.22% growth in Fy25)
- **Export Share:** 55.2% of Pakistan's total exports
- **Manufacturing Growth:** 2.2% (July-March FY25) vs -8.8% contraction in same period FY24
- **Raw Material Imports:** Jumped from $2.1B to $3.6B (FY24 vs FY25)
- **Mill Closures:** 120+ spinning mills shut down since Budget 2024
- **Capacity Utilization:** Below 50% in many units despite export growth
- **Employed labor:** Approximately 40% of the total industrial labor force

Global Position & Market Potential:

- **Current Export Capacity:** $25 billion annually
- **Achievable Target:** As per industry sources, $40-50 billion with comprehensive reforms and right incentives
- **Global Market Size:** $3.6 trillion by 2033
- **Value Chain Position:** Potential for complete vertical integration within domestic establishments. Weak global integration

Infrastructure & Capacity Status:

- **Spinning Capacity:** 13.409 million spindles installed (9.5 million operational - 70.8% utilization)
- **Rotors:** 198,800 installed (126,583 operational - 63.7% utilization)
- **Textile Units:** 408 total (40 Composite, 368 Spinning units)
- **Looms:** 9,084 installed (6,384 operational)
- **TERF Investment:** $5 billion in recent expansion (underutilized due to policy issues)

Export Performance by Subsector:

- **Cotton Yarn:** 8.37% growth (1,987,851 tonnes)
- **Cotton Cloth:** 0.78% growth (657,853 thousand sq. meters)
- **Readymade Garments:** 19.05% value growth, 7.84% quantity growth
- **Hosiery/Knitwear:** 16.82% value growth, 9.20% quantity growth
- **Towels:** 4.46% value growth, 4.02% quantity growth

Strategic Importance

The Textiles and Apparel sector is Pakistan's largest manufacturing export sector, accounting for 60% of total exports and employing approximately 40% of the total industrial labor force. In FY25, textile exports reached $17.88 billion, recording 7.22% growth and reversing -8.8% manufacturing contraction in the same period of FY24. Against a global textile market projected at $3.6 trillion by 2033, Pakistan's current export capacity stands at $25 billion annually, with industry sources estimating an achievable target of $40–50 billion under comprehensive reforms and the right incentives.

The sector's strategic importance extends beyond export revenue. With potential for complete vertical integration — from cotton farming through spinning, weaving, dyeing, and garments — textiles can serve as a multiplier across allied agricultural and industrial sectors. High-value sub-sectors are already showing momentum: readymade garments grew 19.05% in value and hosiery/knitwear 16.82% in FY25. However, a $5 billion TERF investment in recent capacity expansion remains underutilized due to policy inconsistencies, and 120+ spinning mills have shut down since Budget 2024, signaling that export growth coexists with deep structural stress that threatens the sector's long-term competitiveness.

Key Challenges

- **Energy costs:** Captive gas at $15.38/MMBtu and grid electricity at 13–15 cents/kWh — two to three times the regional average — are the primary driver of mill closures and idle capacity.
- **Taxation:** Working capital stuck in frozen refunds, and a defunct FASTER system have created a severe working capital crisis across the value chain.
- **Policy inconsistency:** The absence of a stable, long-term textile policy and continued protection of favored firms over competitive upgrading has suppressed investment and value-added transition.
- **Logistics:** Freight costs of 15–20% of export value versus 8–10% in competing countries, compounded by slow port clearance, are eroding order competitiveness.
- **Cotton production:** Output has fallen 30.7% to 7.08 million bales. Yield decline, seed failure, and outdated ginning are adding $3–5 billion in avoidable import costs annually.

Reform Proposals

Long Term

- **Fix energy costs:** End cross-subsidies, remove grid transition levy, allow Third Party Access for gas/LNG, operationalize CTBCM for competitive supplier choice.
- **Cotton:** Certified seed system, cluster farming, modernized ginning, cost as low as Rs. 200–300M in a JV model.
- **Logistics:** PKR 2,232.5B investment over 5 years (including $6.5–7B ML-I Railway) for upgradation and address logistics costs running at 15–20% of export value
- **Align incentive system and policies:** Develop a long-term policy in conjunction with industry, stop protecting favored firms, favor Man-made fibers (MMF) and micro-fiber technology for value addition, conduct a sub-sector diagnostic of weaving and spinning, and protect TERF investments from becoming sunk costs
- **Global market penetration:** Scale up participation in EU, USA, and UK trade events via existing TDAP and embassy infrastructure.

Short Term

- **Immediately release DLTL arrears and Sales Tax refunds** to avoid liquidity crunch of exporters like it was done during COVID days.
- **Taxation:** Abolish advance tax on export proceeds, simplify the value chain tax structure, and implement a permanent time-bound refund solution, fix FASTER system
- **Digital Product Passport:** Vertically integrate all sub-sectors for EU traceability compliance; non-compliance risks $8B in EU export losses.

Analytical Framework

The Textiles and Apparel sector encompasses spinning, weaving, dyeing, finishing, made-ups, and garments, representing Pakistan's largest manufacturing export sector with complete value chain integration potential.

#	Issues	Cause	Cost To Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action By
Policy & Regulatory Issues								
1.1	**Energy costs making the sector non-competitive**	• Highest energy rate in the region. Captive gas at Rs. 4,906/MMBtu ($15.38) vs regional $6-9; Grid electricity 13-15 cents/kWh vs regional 5-9 cents; Grid Transition Levy Rs 1,406/MMBtu penalty, etc.	• Loss of potential investment, loss of jobs and loss of exports. For e.g., 150 mills closed recently due to production becoming unfeasible due to high energy costs, leading to thousands of job losses[44] • 50%+ capacity idle due to high costs	• End to power sector cross-subsidies • Allow Third Party Access for gas/LNG • Freedom to buy from multiple, competing suppliers under CTBCM, including Captive Power Plants • Policies to induce efficiency in machinery	• No cost at public sector end as reforms and good incentive would merely require tinkering with existing laws in unison with Textile industry, like end to cross-subsidies and level playing field in taxes on domestic and imported cotton	• Significant reduction in energy costs, making it regionally and globally competitive • 75-80%+ capacity utilization • Mill re-openings and job recovery • Investment in textiles recovering to previous peak levels	• Higher quantity of textile exports • Export destination diversificatio n • Required raw material availability • Value-added exports • Lower energy cost as % of production	• Ministry of Energy • NEPRA • Power Division • Ministry of Finance • Provincial governments

[44] *https://profit.pakistantoday.com.pk/2025/01/24/187-mills-stop-operation-across-country-textile-sector-in-crisis/*

#	Issues	Cause	Cost To Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action By
Policy & Regulatory Issues								
		• Industry has to bear burden of household and agricultural power use in the form of Cross-subsidies	• Deindustrialization • Regional+ international competitive disadvantage	• Provision of power at 7-9 cents/kWh and gas at $9/MMBtu				
1.2	**Regressive burdensome taxation**	• 1.25% turnover tax + 29% income tax + 10% super tax • 1.25% advance tax on export proceeds • 0.25% export development surcharge • Outstanding refunds stuck • FASTER system	• The decision to tax domestic supplies at 18% and let imports enter at no cost led to losses to the tune of Rs. 1 trillion[45] plus • Working capital difficulties • Export proceeds taxed before profit realization	• Abolish 1% advance tax on export proceeds • Simplify multitude of taxation along textile value chain • Ensure level playing field for domestic supplies against imports • A permanent, time-bound	• Main change needed at FBR, and would need changing regulations without much expense required	• Export proceeds free from advance tax • Enhanced investment appetite • Improved cash flows • Level playing field local vs imports	• Outstanding refund levels • Tax burden as % of turnover • EFS utilization rate • Working capital ratios • Investment in new capacity	• FBR • Ministry of Finance • Ministry of Commerce • SBP • Export companies

[45] *https://profit.pakistantoday.com.pk/2025/01/24/187-mills-stop-operation-across-country-textile-sector-in-crisis/*

#	Issues	Cause	Cost To Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action By
Policy & Regulatory Issues								
		completely defunct • Manual refunds stalled for 4+ years • 60-70% refund realization rate • 6+ months refund delays	• Cash flow problems • Investment deterrent effect	solution for refunds • Introduce e-invoicing and targeted audits to reduce GST frauds • Fix FASTER system permanently				
1.3	**Getting the Incentive System and Policies Right**	• Stop offering protection against competition to favored firms • Favor technological infusion and upgrades that lead to value addition and competitive advantage, like Man-made (MMF)	• Confusion regarding the consistency, applicability and effectiveness of government policies • Trade balance deterioration due to less exports • Domestic industrial base erosion	• A long-term policy in conjunction with the Textile industry, with in-built protection for continuity • Import of raw materials of textiles should be based upon what they add to value-added in	• Undetermined. All these mainly revolve around policymaking rather than monetary expenses. Only when a proper diagnostic of every sub-sector within textile chain becomes available, only then can the	• Increase in value-added exports • Lesser recourse to public institutions (like FBR) for problem solving by Textile industry • Domestic supply chain revival	• Higher capacity utilization in the industry • Improved ration of domestic vs imported yarn • An end to abuse of schemes like EFS by non-exporters and non-producers	• Ministry of Industries • Ministry of Commerce • APTMA • Spinning associations • Financial institutions

#	Issues	Cause	Cost To Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action By
Policy & Regulatory Issues								
		and micro-fibers • Account for the informal sector, especially in cotton, whose burden has to be picked by the formal sector • Strict implementation of regulations concerning standards, as in the case of Polythene bags contaminating domestic cotton • A system of traceability (Digital Passports) is required for future exports and better	• Use of machines with low productivity • Upstream sector collapse • Supply chain disruption	terms of exports • Make a diagnostic assessment of all components of textile industry (like weaving and spinning), gauge where the issue lies in terms of optimal performance and how policy can help ameliorate the problem • Encourage backward integration • Protect TERF investments lest they become sunk costs for	true cost be gauged	• Productive utilization of TERF investments • Higher quality output in terms of research, domestic innovation (seed variety, industrial innovation, etc.)	• Continuity of policy without reverting to SROs • Higher value addition levels	

#	Issues	Cause	Cost To Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action By
Policy & Regulatory Issues								
		domestic market functioning • All public sector institutions dealing with the industry should be on the same page rather than having separate procedures		costs for industry and exchequer				
1.4	**Textile Logistics & Infrastructure Bottlenecks**	• Poor transport connectivity from textile clusters to ports • Inefficient textile cargo clearance (days vs hours globally)	• Costs run ins per month, although exact figure is not available • Delayed textile shipments and order cancellation penalties	• Develop dedicated textile freight corridors from major clusters • Modernize port handling facilities for textile shipments • Implement digital textile	• An estimated $8-9 billion is required for upgrading major logistics and port facilities, including $6.5-7 billion ML-I Railway line under CPEC[46]	• Textile logistics costs reduced to 10% • Port dwell time for textile cargo under 24 hours • Improved textile	• Port dwell time for textile cargo • Textile logistics cost as % of exports • On-time textile delivery rates • Container turnaround	• Ministry of Maritime Affairs • Ministry of Communications • Port authorities • NLC/Railways • Textile logistics companies

[46] *https://profit.pakistantoday.com.pk/2025/01/24/187-mills-stop-operation-across-country-textile-sector-in-crisis/*

#	Issues	Cause	Cost To Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action By
Policy & Regulatory Issues								
		• Limited container availability for textile shipments • Weak cold chain for technical textiles and garments • High textile logistics costs (15-20% vs 8-10% in competing countries)	• Lost textile orders due to delivery issues • Higher textile inventory holding costs • Damage to Pakistan's textile reliability reputation, with buyers turning to alternative sources like Bangladesh and India	cargo tracking systems • Establish textile logistics parks near Faisalabad, Karachi clusters • Improve road/rail connectivity to textile hubs • Create textile-specific warehouse infrastructure		delivery schedules • Enhanced textile export competitiveness • Better textile inventory management • Improved Pakistan textile reliability rating	time for textiles • Textile freight corridor utilization	

#	Issues	Cause	Cost To Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action By
Access to Finance								
2.1	**Textile liquidity and working capital issues**	• Outstanding textile export refunds stuck • FASTER system completely defunct affecting textile exporters • Manual textile refunds stalled for 4+ years • 60-70% textile refund realization rate • 6+ months textile refund delays	• An estimated $1.2B textile working capital locked[47] • Textile production disruptions and mill closures • Cash flow crisis across textile value chain as banks refuse to let more due to mounting non-payments/delayed payments • Bank financing declined specifically for textiles	• Doing away with mechanisms whereby Govt. withholds industry's earnings • Linking textile sector with Pakistan Credit Rating Agency (PACRA) for better access to bank and non-bank finance	• Both PACRA and FBR are the concerned agencies in this case, and no expense is required for resolution of these issues	• Restored textile working capital flows • Normalized cotton supplier relationships • Enhanced textile production capacity • Improved bank lending to textile sector • Textile sector liquidity recovery	• Outstanding textile refund levels • Textile refund processing time • Textile working capital ratios • Cotton supplier payment terms • Bank credit growth to textile sector • Improved PACRA credit rating, making it easier to access capital	• Ministry of Finance • FBR • SBP • Commercial banks • Textile export companies

[47] *https://profit.pakistantoday.com.pk/2025/01/24/187-mills-stop-operation-across-country-textile-sector-in-crisis/*

#	Issues	Cause	Cost To Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action By
Access to Finance								
			Cotton supplier relationships strained					
Technology Adoption								
3.1	**Cotton production crisis**	• Production dropped 30.7% from 10.22M to 7.08M bales • Area declined 15.7% from 2.4M to 2.04M hectares • Yield decreased from 717 kg/ha to 590 kg/ha • Poor seed quality and fake seeds prevalence • Outdated ginning machinery • Climate chang e and pest attacks	• $3-5B additional import costs • Raw material price volatility • Supply chain vulnerability • Rural livelihood destruction • Quality inconsistency issues	• Establish centralized certified seed system • Implement cluster farming models • Modernize ginning infrastructure • Develop regenerative cotton initiatives • Enhanced extension services	• Main cost in the form of facility upgradation, like facilities for cotton research and agricultural institutes. Can be a JV between Govt and large firms like ENGRO for upgradation, whereby Govt costs would be limited to Rs. 200-300 million. If pursued only by the Govt, the cost could be Rs. 500 million & above[48]	• Domestic production recovery to 12M bales • Significant yield improvement per/hectare • Enhanced farmer incomes • Supply chain security	• Cotton production volume • Yield per hectare • Quality indices • Farmer income levels • Certified seed usage rate	• MNFSR • Provincial agriculture • PCCC • Ginning associations • Farmer organizations

[48] *APTMA Central cotton Institute PIDE*

#	Issues	Cause	Cost To Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action By
Human Resource Issues								
4.1	**Skills Gap & Workforce Development Crisis**	• Textile industry facing massive skilled worker shortage as 150+ mills closed • Training programs poorly implemented with insufficient focus on modern textile technology • Technical institutes lack modern textile machinery and industry exposure • Skilled workers emigrating to Bangladesh,	• Productivity decline due to extended on-job training periods • Loss of competitive advantage to regional competitors • Economic loss from missed export opportunities • Reduced manufacturing efficiency and quality issues	• Establish Demand-Based Textile Skills Development Program • Create industry-academia collaboration frameworks • Launch Train the Trainer programs for technical institutes • Integrate modern textile technology in curriculum • Skilled worker retention and repatriation programs	• Exact quantum of expenses for required skills upgradation is not known, although it is proposed that the existing, vast technical training infrastructure at public level can be used, thus obviating the need for any new institute	• Good quality Industry-ready textile professionals readily available on demand • Enhanced technical institute capabilities • Reduced dependency on foreign expertise • Skill retention metrics improvement	• Reduction in skilled worker shortage • Graduate employment rate in textile sector • Industry satisfaction with graduate skills • Technical institute modernization levels • Worker retention rates • Industry academia linkages and job placements	• Ministry of Education • Technical Education & Vocational Training Authority (TEVTA) • Textile institutes • Textile companies • Industry associations

#	Issues	Cause	Cost To Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action By
Human Resource Issues								
		Vietnam, and other competing countries • Mismatch between academic curricula and industry requirements						
Market Access & Development								
5.1	**International market penetration & brand recognition**	• Limited international marketing presence despite strong fundamentals • Insufficient participation in high-value international trade events • Lack of coordinated national branding strategy for textiles	• Export potential unrealized - current $17.88 billion exports far below potential • Business generation low despite strong fundamentals • FDI impact: Reduced foreign direct investment due to poor	• Scale up participation in premium international trade events • Develop tailored marketing strategies for key markets (EU, USA, UK) • Launch comprehensive digital marketing and	• Already existing facilities/setups at government level like TDAP, Trade Fairs, Trade Councilors/ Attaches' placed in foreign embassies can be used with minimal expense required	• Export growth progression toward $30 billion annual target • International recognition: Enhanced global brand positioning for Pakistan textiles • Market access: better access to	• Expansion and integration into Global Value Chains (GVC), in turn helping to increase value added exports	• Trade Development Authority of Pakistan (TDAP) • All Pakistan Textile Mills Association (APTMA) • Pakistan Readymade Garments Manufacturers and Exporters Association (PRGMEA) • Textile companies

#	Issues	Cause	Cost To Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action By
Market Access & Development								
5.1		• Poor ROI from current international marketing efforts	international visibility • Competitive disadvantage against regional competitors with better marketing	podcasting initiatives • Create comprehensive textile sector branding strategy		high-value international contracts • Enhanced business confidence and policy coherence scores • Increased FDI inflows in textile sector		• Pakistani diplomatic missions abroad
5.2	**Digital Product Passport**	• Absence of traceability measures • Requirement of EU for net-	• Probable loss of $8 billion in textile exports to	• Vertical integration of all sub-sectors of Industry in	• No investment required	• Compliance with EU standards	• Quantum of exports to EU after due compliance	• Trade Development Authority of Pakistan (TDAP)

#	Issues	Cause	Cost To Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action By
		zero supply chain (CBAM)	EU in case of non-compliance	order to ensure traceability and compliance as per the EU requirements				• All Pakistan Textile Mills Association (APTMA) • Pakistan Readymade Garments Manufacturers & Exporters Association (PRGMEA) • Textile companies • Pakistani diplomatic missions abroad
Tax Structure								
6.1	**R&D & innovation tax incentives**	• Limited tax incentives for textile R&D investment discouraging innovation • Tax structure not supporting transition from generic to high-value	• Innovation deterrent effect limiting textile sector R&D investment • Competitive gap in transitioning to high-value innovative services	• Create innovation tax credits for patent applications • Implement startup tax holiday programs for textile technology companies	• No investment required	• Increased private sector R&D investment in textiles • Innovation capacity: Enhanced domestic technology development	• Private sector R&D expenditure levels • Patent applications and grants • Innovation investment metrics	• Ministry of Finance • Pakistan Council for Science & Technology • Federal Board of Revenue • Textile companies

#	Issues	Cause	Cost To Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action By
Tax Structure								
		innovative textile services • Innovation deterrent: Tax structure not supporting R&D investment	• Investment barriers affecting technology development in textile sector • Patent activity and grants limitations • Innovation investment levels below potential	• Launch technology development tax incentive schemes • Establish R&D tax credit systems for textile innovations		• Patent activity: Increased intellectual property development • Innovation investment levels improvement • Technology commercialization success rates	• Technology commercialization rates • R&D tax credit utilization	• Research institutions

Investment Summary

The methodology is as follows:

For various reasons, it is not possible to estimate exactly how much investment (public or private) would be needed for a particular sector in the coming years. This is true of Pakistan as well as any other country in the globe. Economic and political circumstances can change quickly, turning the tide either in favor or against investments in an economy

Keeping this in view, we use the 'stock' and 'flow' estimates to get a fair idea of present and future investment requirements. The former relates to the stock of PSDP investments already earmarked, while the latter relates to average credit taken up by a particular sector, which is a reasonable proxy (although not perfect) for private sector investment requirements

There is nothing earmarked for this sector in PSDP, which may need a revision in the upcoming Annual Development Plan (ADP) for initiatives like green manufacturing and digital passports in order to meet EU market standards. Moreover, the average take-up of credit for this sector in the last 5 years is around Rs. 1 trillion, 650 billion, the heaviest uptake of credit from banks in terms of businesses/industry, and a number that would need to be kept in perspective so as to not let it fall below that

Year-wise Investment Summary *(PKR Billion)*

Category	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Policy & Regulatory Issues						**2,232**
1.4 Textile Logistics & Infrastructure Bottlenecks	279	279	837	558	279	2,232
Access to Finance						**-**
Technology Adoption						**0.5**
3.1 Cotton Production Crisis	0.05	0.1	0.15	0.1	0.1	0.5
Human Resource Issues						**-**
Market Access & Development						**-**
Tax Structure						**-**
Total	**279.05**	**279.1**	**837.15**	**558.1**	**279.1**	**2,232.5**

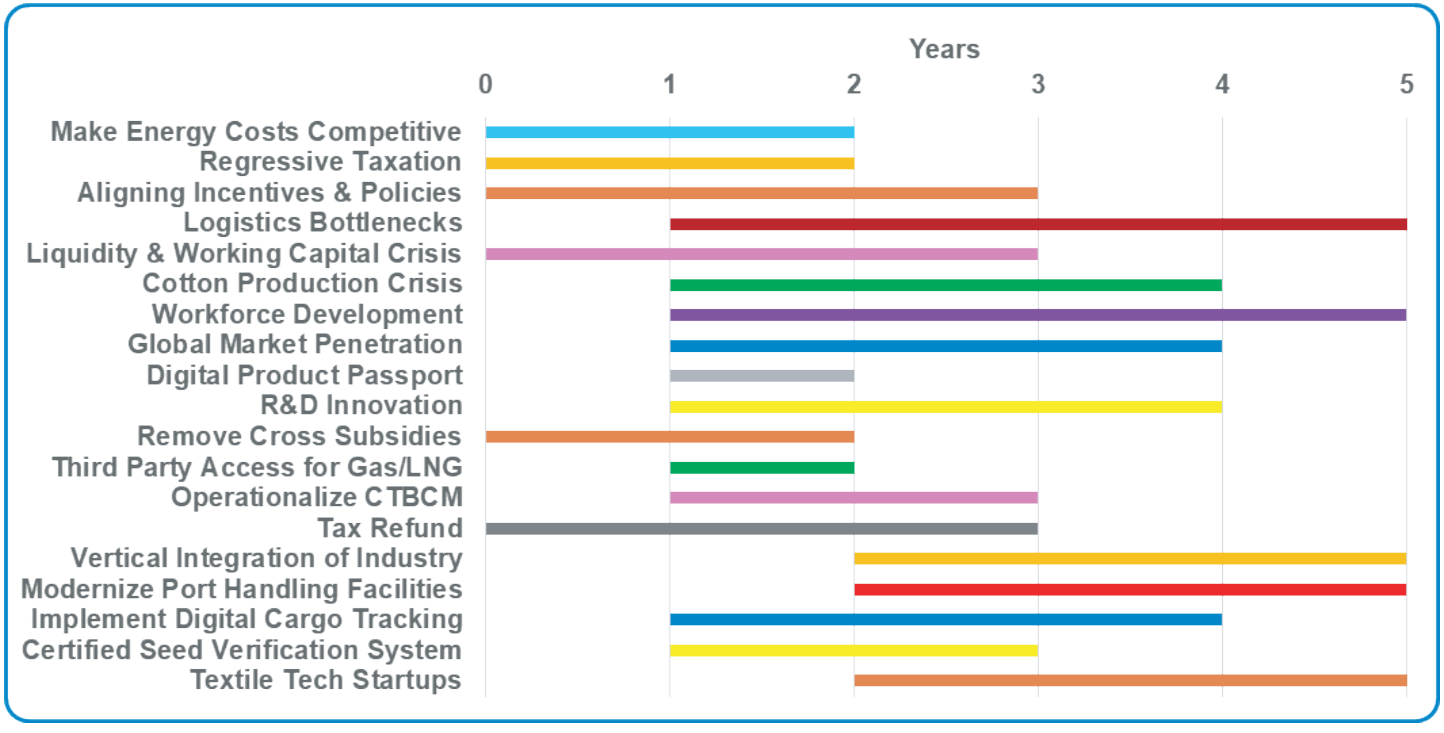
**Proposed interventions based investment estimates*

Investment Multiplier

The multiplier impact of investment in Pakistan varies across studies. Most research has focused on the Public Sector Development Programme (PSDP), as it constitutes the largest share of aggregate investment; there is limited evidence on private investment multipliers. However, there is no consensus on the precise size of the multiplier. Nearly all studies estimate it to be below 1, typically ranging between 0.5 and 1. For this analysis, we adopt a multiplier of 0.6, consistent with the prevailing findings in the literature.

The required investment is PKR 2,232.5 billion, which—when multiplied by the investment multiplier of 0.6—yields an impact of PKR 1339.5 billion.

Year-wise Interventions in Textile Sector



Conclusion

The gap between Pakistan's current $17.88 billion in textile exports and its $40–50 billion potential is a policy gap, not a capacity gap. Short-term interventions — releasing frozen refunds, fixing the FASTER system, and abolishing advance tax on export proceeds — can provide immediate liquidity relief and arrest the wave of mill closures before structural damage becomes irreversible. The longer-term reforms in energy pricing, cotton production, logistics, and policy alignment will determine whether the sector can credibly compete for its share of a $3.6 trillion global market. The reforms required are well-defined, largely low-cost, and actionable, continued inaction will only accelerate capital flight and cede further ground to Bangladesh, Vietnam, and India.

AGRICULTURE

Key Statistics

Current Performance (FY25):

- **GDP Contribution:** 23.5% to GDP while employing 37.4% of workforce
- **Water Efficiency Crisis:** 43.5% losses in lined water courses, 66% in unlined water courses
- **Farm Fragmentation:** Average farm size 2.6 hectares with 64% farms < 1 Hectare
- **Post-Harvest Losses:** $1.5B annual losses (25-50% in fruits and vegetables)
- **Credit Access:** Only 19% of farmers have formal credit access

Global Context & Rankings:

- **R&D Investment:** Only 0.12% of agricultural GDP (vs global benchmark 1-3%)
- **Mechanization Level:** 30% vs developed countries (70-90%)
- **Digital Adoption:** Only 12% of smallholders use digital tools
- **Gender Gap:** 56.7% gap despite women contributing 60-80% of agricultural labor
- **Climate Vulnerability:** $2B annual losses from extreme weather events

Infrastructure & Technology

- **Technology Gap:** Limited mechanization and precision agriculture adoption
- **Extension Services:** Weak farmer advisory and knowledge transfer systems
- **Seed Development:** Poor variety development and limited technology transfer
- **Digital Infrastructure:** Inadequate weather, pest, and market data systems
- **University-Industry Gap:** Limited collaboration in agricultural research

Infrastructure & Food Systems

- **Irrigation Inefficiency:** Massive water losses affecting 60% of agricultural land
- **Storage Deficiency:** Inadequate cold storage contributes to 25-50% crop losses
- **Market Connectivity:** Poor farm-to-market roads increasing logistics costs

Strategic Importance

Agriculture has remained backbone of Pakistan's economy since its inception. Currently, it contributes 24.5% to country's GDP[49] and employs **37.4% of the workforce[50].** This means a substantial decline in terms of contribution to GDP, when it was above 60 percent in the initial years of the country's founding. Nevertheless, it accounts for around 70% of the country's exports, directly or indirectly[51]. Given its contribution to the GDP and exports, it holds strategic importance in country's economy.

Despite its critical importance, R&D investment in this sector stands at just 0.12% of agricultural GDP[52], a stark contrast to the global benchmark of 1–3%. Mechanization levels tell a similar story, with very low coverage compared to 70–90% in developed countries. Digital adoption remains limited as well, with only 12% of smallholders currently using digital tools[53].

Export performance is constrained by weak certification and standardization systems, low technology adoption, and price volatility in domestic markets. Strengthening quality compliance, adopting modern farming techniques, and improving market connectivity can enhance Pakistan's global market access, reduce export rejections, and improve integration into regional and international food value chains.

Key Challenges

- **Inefficiency:** Water efficiency losses are 43.5% in lined and 66% in unlined watercourses; average farm size 2.6 ha, 64% below 1 ha; post-harvest losses $1.5B annually, 25–50% in fruits/vegetables; only 19% of farmers have formal credit access.
- **Fragmented Policies:** Fragmented land and tenure issues, small farm sizes (97% <5 ha) limit economies of scale, credit, and technology adoption; sector faces regulatory, policy, and taxation challenges.
- **Institutional Constraints:** Weak quality certification, limited credit, delayed seasonal disbursements; poor compliance with standards reduces exports; low adoption of advanced tech (drip, satellite, precision).

[49] *https://www.pbs.gov.pk/national-accounts-2/*
[50] *https://www.pbs.gov.pk/wp-content/uploads/2020/07/LFS-2024-25-Annual-Report.pdf*
[51] *Source: Food and Agricultural Organization (FAO), available at https://www.fao.org/pakistan/our-office/pakistan-at-a-glance*
[52] *https://www.thenews.com.pk/print/1227244-pakistan-s-agri-r-d-funding-lowest-in-south-asia*
[53] *https://www.agrieconomist.com/transforming-agriculture-in-pakistan-with-big-data*

Reform Proposals

Long Term

- **Undertake Land Reforms:** Implement land consolidation, cooperative farming, digital records, tenant protections, and promote contract farming.
- **Policy and Market Reforms:** Establish transparent long-term policies, open domestic markets to global competition, and end MSP distortions.
- **Institutional Coordination:** Strengthen collaboration among MNFSR, provincial departments, SBP, banks, PASSCO, PSQCA, SUPARCO, PITB, Women Development Departments, and insurers.
- **Regulatory Simplification:** Streamline land records, insurance, credit, certification, and tech adoption; harmonize standards and labs with international norms; digitalize loans, market info, and e-platforms.
- **Technology Adoption:** Expand use of drip irrigation, satellite imagery, and digital tools.
- **Market Linkages:** Strengthen farmer producer organizations, direct marketing, commodity exchanges, price support mechanisms, and digital platforms.

Short Term

- **Improve R&D:** Enhance seed quality and strengthen agricultural research accountability by assessing performance of existing research institutes.
- **Climate and Crop Resilience:** Introduce crop insurance, drought-resistant varieties, early warning systems, and climate-smart agriculture programs.
- **Credit Access:** Improve access via collateral-free schemes, warehouse receipt financing, and streamlined loans.
- **Quality and Compliance:** Strengthen labs, certification, traceability, and SPS compliance.

Analytical Framework

The agricultural sector issues encompass sub-sectors such as water scarcity & inefficient irrigation, food processing, poor quality control & standards, cold chain integration failure, and weak market linkages & price volatility, all addressed within this unified framework.

#	Issues	Cost To Economy	Reform Proposals	Investment Cost[54]	Expected Outcome	Measurable KPIs	Action by
Policy and Regulatory Issues							
1.1	**Fragmented Land Holdings & Tenure Issues**	• Average farm size 2.6 hectares limits economies of scale • 64% of farms < 1 hectares • Limited access to credit and technology	• Land consolidation programs • Cooperative farming models • Digital land records • Tenant farmer protection • Contract farming promotion	Mainly procedural, legal and administrative changes required as Cooperatives and digital land records are already available	• Increased farm efficiency • Better resource utilization • Enhanced credit access • Improved farmer bargaining power	• % of farms run via Cooperatives • Contract farming area • Aggregate productivity of the production process leading to higher yields	MoNFSR, Provincial Revenue Depts
1.2	**Low yield of crops and seed quality issues**	• Seed quality gaps limit yields • Crop losses (5-15% annual yield reduction), leading to lower availability of food staples • Higher food insecurity, requiring imports • Significant black market in seeds and other inputs	• Accountability of public sector agricultural research institutes in terms of their failure to come up with quality seed varieties • Hold agricultural cooperatives, research institutes and entities accountable for their performance against their budgets	• None	• Increase in crop yields • Increase in quality seed production in domestic institutes, leading to less demand for imported varieties • Higher, quality research output from domestic agricultural research institutes	• % increase in the yield	MoNFSR, Federal and provincial agricultural research institutes

[54] *Investment Costs are just estimates and can vary depending upon the feasibility studies*

#	Issues	Cost To Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action by
Policy and Regulatory Issues							
1.3	**Ad-hoc policies leading to uncertainty and loss for domestic farmers**	• Poorly thought-out, opaque and ad-hoc decisions hurt the local farmers, as in the recent case of importing low quality wheat from Ukraine that inflicted tremendous financial losses upon the domestic wheat farmers • Similar examples exist in the form of export/import permits	• The domestic market should be opened up for global market. It will lead to less volatility and provide more choice to Pakistani farmers to sell their products in new markets • Decision-making should be long-term, transparent and keep the interest of domestic agriculture and farmers at heart	• None. Only policy changes are required.	• Pakistani farmers getting access to new global markets • Long-term agricultural policies rather than ad-hocism • Research institute's collaborating with food giants like ENGRO for higher quality input	• New markets for Pakistani agricultural goods • Long-term agricultural policy that does not change in short-term	Commerce Ministry, federal and provincial agricultural departments
1.4	**Loss accruing to consumers due to closed market and distorted price signals via Minimum Support Price (MSP), and loss of agricultural produce in**	• The closed nature of domestic markets (in terms of limitations on imports) means that domestic consumers end up paying significantly higher prices for	• Open up agricultural market to global producers and sellers. In that way, both the consumer and producer would benefit (lower, competitive prices, more choice and opening up of	• None. Only legislative and administrative steps would be required	• Average prices of agricultural produce are going down compared to previous years, with low variation/volatility in prices • Privatized storage areas across the	• Average prices of agricultural produce • Number of public sector storages privatized • Quantum of agricultural exports	Commerce Ministry, PASSCO, federal and provincial agricultural departments

#	Issues	Cost To Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action by
Policy and Regulatory Issues							
	government godowns	agricultural produce • MSP distorts market signals, as it inches higher every year, often resulting in higher prices later on • A significant amount of agricultural produce is lost every year in government godowns as the staples becomes non-eatable	new markets for domestic producers) • End MSP and let market decide the production and consumption decisions • Privatize agricultural storages of PASSCO		country, leading to lesser losses • Higher exports by Pakistani farmers due to lesser export barriers		
1.5	**Unutilized agricultural land in millions of acres across Pakistan ('culturable waste')**	• Loss of significant amounts of potential produce due to non-utilization of agricultural land • Lesser food security	• Analyze the reasons why such large tracts of land remain uncultivated • Analyze why former schemes to lease out these lands for cultivation failed	• 11-15 billion PKR, based on average cost of cultivating a hectare at PKR 5 lakh and 22 million hectares of such land[55]	• Bringing these 'cultural waste' lands under utilization • More agricultural produce and lesser food insecurity	• Total percentage of formerly unutilized land brought under cultivation	Federal and provincial governments and their agricultural departments

[55] *Source: Price per hectare from 'What's all the fuss about corporate farming', 24th September 2023, PROFIT magazine*

#	Issues	Cost To Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action by
Policy and Regulatory Issues							
	Unutilized agricultural land in millions of acres across Pakistan ('culturable waste')		• Incentive scheme to bring these lands under cultivation, like awarding property rights, provision of inputs initially at a subsidized rate (later phased out)				
1.6	**Climate Vulnerability & Risk Management**	• Extreme weather events cause $2B annual losses[56] • Projected 8-10% yield decline due to climate change • Limited crop insurance coverage to counter such adverse circumstances • Frequent drought/flood cycles • Recurrent floods and drought	• National Crop Insurance Scheme • Drought-resistant crop varieties • Early warning systems • Disaster risk management • Climate-smart agriculture (CSA), resilient varieties, crop insurance • Crop losses, household food insecurity,	• Estimated to be $152 billion[57]	• Reduced climate- related losses • Farmer resilience • Stable food production • Risk mitigation • Reduced yield volatility, improved resilience • Increased resilience to shocks • Stabilized production; reduced	• % farmers with crop insurance • Area under climate smart practices • Yield stability index • Disaster response time • % area under CSA, insured farmers, yield stability index • Insured wheat area • yield stability under climate stress	MNFSR, NDMC, Insurance Companies, MoCC, Min Agri, Provincial Agri Depts

[56] *Pakistan faces $2bn losses in climate disasters', DAWN, 25th April 2025*
[57] *'Accelerating green and climate resilient financing in Pakistan', UK International Development https://assets.publishing.service.gov.uk/media/68e3c079ef1c2f72bc1e4e23/Accelerating-Green-and-Climate-Resilient-Finance-in-Pakistan.pdf*

#	Issues	Cost To Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action by
Policy and Regulatory Issues							
		• Recurrent floods and drought affect wheat planting, yields, and stocks • Rising temperatures, heatwaves, and erratic rains damage almost all agricultural commodities	increased volatility • Climate-smart agriculture programs; crop insurance		vulnerability to climate shocks		
Technology Adoption							
2.1	**Weak certification and standardization systems (quality, SPS compliance, phytosanitary measures)**	• Export rejection, low global market access, reputational risk	• Strengthening labs/testing facilities, align with Codex/ISO; national traceability & certification programs	• The cost a single phytosanitary lab is around $250,000 minimum.[58]It depends upon how many of these labs are required	• Higher compliance, fewer rejections, premium prices	• % exports with certification, rejection rates, $/ton value addition	PSQCA in coordination with Federal and provincial departments

[58] *"How to start a laboratory testing business', available at https://www.serif.ai/start-a-business/how-to-start-a-laboratory-testing-business-2025-guide-10-steps-free-business-plan*

#	Issues	Cost To Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action by
Policy and Regulatory Issues							
2.2	**Low usage of advanced technology like drip farming and satellite imagery of cultivation, precipitation and other related factors**	• Low yields • Waste of precious resources like water • Low technology use limiting export potential	• SUPARCO is already using satellite imagery for agricultural purposes. This needs to be extended to maximum • Market pricing of water use that would lead to water conservation via drip irrigation type technologies	• 200,000 to 300,000 per hectare for setting up drip irrigation systems.[59] The total cost would be an estimated 15-20 billion PKR	• A large portion of agricultural land is covered through modern techniques like drip farming, especially in lower delta where water for agriculture is scarce • Higher percentage of water conservation	• Increased use of technology • Percentage of water used for agricultural purposes	Federal and provincial agricultural departments, SUPARCO
Access to Finance							
3.1	**Limited Access to Credit & Financial Services and delayed credit disbursement**	• Only 19% of farmers have formal credit access • High interest rates (26- 27%) • Informal lending at high interest rates • Farmers face delayed/partial payments, increasing their debt burden. • Seasonal credit delays – often	• Strategies for extending formal agricultural credit (like using microfinance banks or loaning despite low or poor collateral, with return in easily manageable installations • Collateral-free lending schemes	• The already existing forums like PACRA and ZTBL can be used to extend credit to informal loan takers at competitive rates	• Increased formal credit uptake • Reduced borrowing costs • Enhanced productivity investments • Financial inclusion • Relatively stable farmer incomes and lesser debt burden • Timely loan access; improved	• % farmers with formal credit • Average interest rates • Credit-to-agriculture ratio • Default rates • % of timely farmer payments • Average loan disbursement time. • % loans before sowing.	SBP, ZTBL, Provincial Agri Credit Boards and commercial banks

59 *'Saving water, one drip at a time', 26th December 2022, DAWN*

#	Issues	Cost To Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action by
Access to Finance							
		due to banking bureaucracy and late approval cause many farmers to miss sowing windows, undermining crop planning and reducing yield potential	• Warehouse receipt financing • Enforce timely farmer payments; cap retail markups. • Streamline seasonal loan processing through digital platforms (Kissan Card)		productivity through better crop planning	• seasonal credit coverage	
Market Access and Development							
4.1	**Weak Market Linkages & Price Volatility**	• Crop prices in Pakistan exhibit severe volatility • Farmers typically receive less than 50% of the retail price consumers pay • Limited direct market access • Middlemen capture most value addition • Annual farmer income loss ~$2B • Middlemen capture 30–40% of value chain	• Farmer producer organizations • Direct marketing platforms • Commodity exchanges • Price support mechanisms • Market information systems • E-platforms (apps), digital payment, traceability • Farmer producer organizations (FPOs), co-ops, contract farming	• Basically, a coordination effort would be required to lessen the involvement of middlemen and farmers getting fair prices as well as access to inputs	• Stable farm gate prices • Better price realization for farmers • Reduced influence (and profits) of middlemen • Market transparency	• Price volatility reduction % • Farmer share in consumer price • # active FPOs • Market linkage coverage • # farmers on platforms, % transactions online • % sales via FPOs, farmer income growth	MNFSR, Provincial Marketing Depts, PITB, Min IT

#	Issues	Cost To Economy	Reform Proposals	Investment Cost[1]	Expected Outcome	Measurable KPIs	Action by
Market Access and Development							
		• Farmer profitability cut by 25–40%					
Human Resource Issue							
5.1	**Undertrained Extension Workforce as well as 'invisible' female labor force**	• Under-resourced agricultural extension services fail to reach most smallholder farmers, limiting technology adoption and maintaining yield gaps worth billions annually • Women contribute 60-80% of agricultural labor, especially in cotton. Yet their work is mostly informal, they are underpaid compared to market rates and are not imbursed for any catastrophe or injury during labor	• Capacity building programs; extension tools; performance-linked contracts • Gender-inclusive extension services • Women farmer producer organizations	• Legal coverage for female labor force rights and protection • Already existing training facilities for upgrading skills	• Improved farmer knowledge; adoption of modern practices • Enhanced women participation under formal sector • Equal access to resources • Improvement of income • Empowerment	• % women landowners • Women in agricultural credit • Gender wage gap reduction • Women-led enterprises #	MNFSR, Women Development Depts

Investment Summary

The total stock of public sector investment under MNFS&R stands at an estimated 24 billion PKR, while credit uptake averages around 12-13 billion PKR over the last 5 years.

Year-wise Investment Summary *(PKR Billion)*

Category	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Policy & Regulatory Issues						**16.9**
1.5 Cultivating unutilized agricultural land	0.5	1.65	2.5	3.3	4.1	12.05
1.6 Climate vulnerability & risk management	0.97	0.97	0.97	0.97	0.97	4.85
Technology Adoption						**18.08**
2.1 Upgradation and establishment of phytosanitary labs	0.014	0.014	0.0187	0.0187	0.0187	0.0841
2.2 Advanced technology application	5	4	3	3	3	18
Access to Finance						**-**
Human Resource Issues						**-**
Market Access & Development						**-**
Tax Structure						**-**
Total	**6.48**	**6.63**	**6.49**	**7.29**	**8.09**	**34.98**

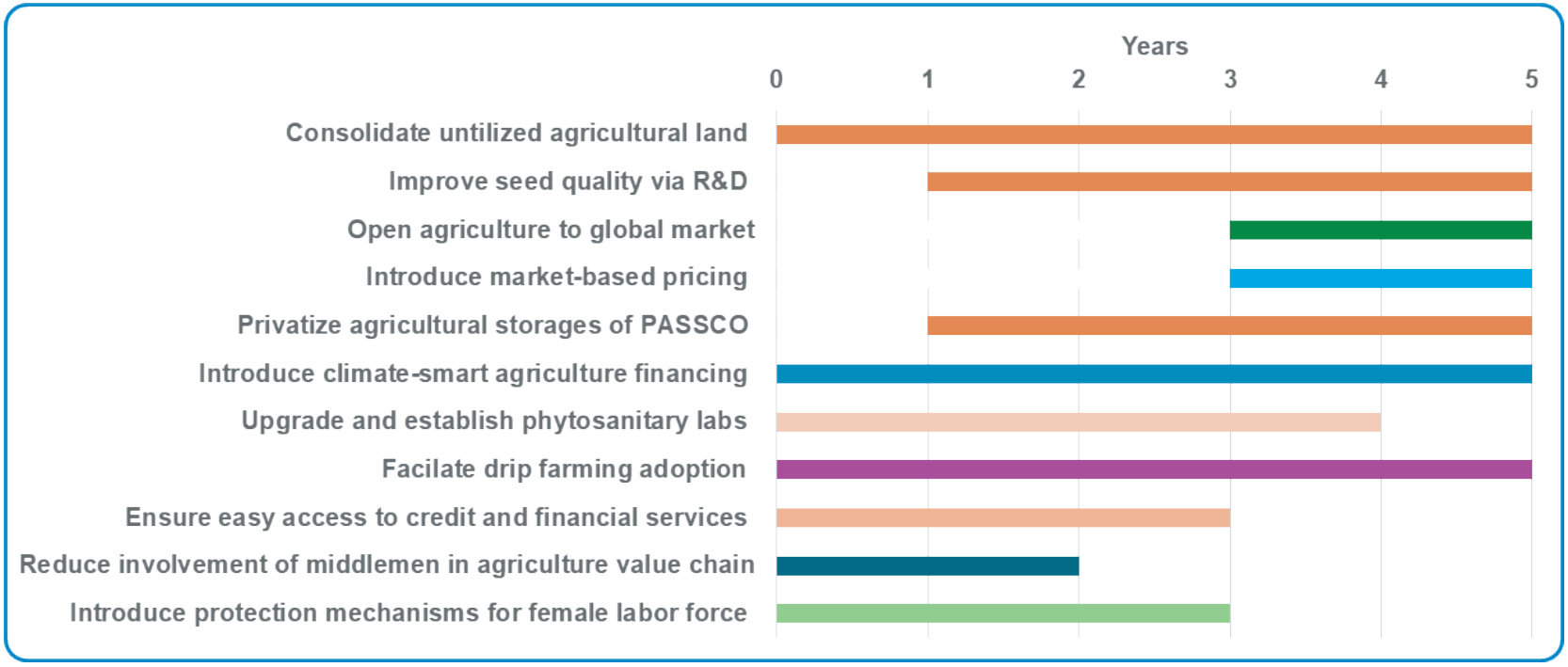
**Proposed interventions based investment estimates*

Investment Multiplier

The multiplier impact of investment in Pakistan differs by different studies. Majority of studies have been done in context of PSDPs impact since it tends to be the largest portion of investment on aggregate (there is little in terms of estimates of private investment multiplier). However, there is no unanimity in terms of the size of multiplier. Almost all studies put it below 1, between 0.5 and 1. We will use 0.6 as the multiplier of investment based on these studies.

The investment multiplier value for the agriculture sector is Rs.20.99 billion, spanning over 5 years.

Year-wise Interventions in Agriculture Sector



Conclusion

Agriculture remains central to Pakistan's economy and export base, yet its productivity and competitiveness are constrained by structural inefficiencies, low investment in R&D, and limited technology adoption. Fragmented landholdings, weak institutional coordination, and inadequate market systems continue to suppress scale and value addition. Targeted reforms—combining land and policy restructuring with improved credit access, technology adoption, and quality compliance—are critical. Effective implementation can enhance productivity, strengthen export performance, and reposition the sector as a modern, resilient driver of economic growth.

LIVESTOCK

Key Statistics

Current Performance (FY25):

- **Raw Milk Dominance:** 97% of milk sold raw with minimal processing - leading to 15-20% post-harvest losses
- **Disease Burden:** Foot-and-Mouth Disease alone causes $692M annual losses (70% of livestock disease losses)
- **Export Performance:** Processed dairy/meat exports 30%
- **AI Coverage:** Artificial Insemination coverage remains below 25% despite 799 new centers in KP
- **Veterinary Services:** Only 1 veterinarian per 100,000 animals (far below international standards)

Global Context & Rankings:

- **Processing Gap:** 97% raw milk vs global trend toward value-added dairy products
- **Productivity Gap:** Traditional grazing systems reduce milk/meat output significantly
- **Export Competitiveness:** Limited presence in premium halal meat and dairy markets globally
- **Technology Adoption:** Poor adoption of modern feeding, housing, and breeding technologies
- **Gender Exclusion:** Women perform most livestock activities but excluded from formal training

Infrastructure & System Gaps:

- **Cold Chain Deficiency:** Inadequate veterinary cold chain for vaccines and semen storage
- **Milk Collection:** Fragmented collection system leading to 15-20% spoilage losses
- **Processing Infrastructure:** Limited dairy processing facilities and value-addition capacity
- **Market Access:** Farmers receive

Innovation & Technology Infrastructure:

- **R&D Investment:** Low innovation in breed improvement, feed, and disease management
- **Digital Integration:** Poor adoption of herd management technologies and digital ID tagging
- **Extension Services:** Weak livestock extension and farmer training programs
- **Research Capacity:** Institutional capacity deficit in provincial livestock research stations

Strategic Importance

The livestock sector is critical for ensuring food security, supporting rural livelihoods, and strengthening value-added agro-based industries. It contributes 63.6 percent to agriculture and 14.97 percent to GDP, as of FY25[60]. However, the sector remains dominated by low-value activities, particularly the sale of raw milk, which accounts for 97% of total milk marketed and results in 15–20% post-harvest losses due to limited processing and storage capacity.

Addressing these structural inefficiencies is essential to unlock productivity and value addition in the sector. Pakistan's livestock sector has limited integration with global value chains due to low levels of value addition and weak export competitiveness. Processed dairy and meat exports remain limited at around 30%, reflecting underdeveloped processing infrastructure and limited participation in premium halal meat and dairy markets.

Key Challenges

- **Raw Milk and Losses:** 97% of milk is sold raw, causing 15–20% post-harvest losses due to fragmented collection & limited processing.
- **Disease Burden:** Foot-and-Mouth Disease alone causes ~$692M annual losses, 70% of total livestock disease losses.
- **Veterinary Services:** Only 1 veterinarian per 100,000 animals; artificial insemination coverage below 25% despite 799 new centers in Khyber Pakhtunkhwa.
- **Infrastructure Gaps:** Weak cold chain systems for vaccines and semen storage; low R&D investment in breed improvement, feed, and disease management.
- **Extension and Technology:** Weak extension services, limited digital tools (herd management, digital ID tagging), and institutional capacity deficits hinder adoption and productivity.
- **Structural and Governance Bottlenecks:** Border closures disrupt exports; price controls discourage investment; fragmented collection and cold chains increase spoilage; weak data and young/female livestock slaughter reduce supply.
- **Regulatory, Fiscal and Institutional Constraints:** Limited veterinary care, weak regulations, absent export policies, and price fixing reduce competitiveness; low adoption of modern feeding/housing and fodder shortages limit productivity; institutional gaps hinder research and breed improvement; women dominate livestock work but lack formal training and extension support.

[60] *https://www.pbs.gov.pk/national-accounts-2/*

Reform Proposals

Long Term

- **Investment in Animal Farming:** Target varieties/species with demand in high-end markets and increase livestock for exports.
- **Develop border markets and ease regulations:** Establish formal border markets and streamline policies to enhance ease of doing business and trade flows.
- **Build robust cold-chain infrastructure:** Develop end-to-end cold chains to reduce losses in milk and meat supply chains.

Short Term

- **Enforce mandatory vaccination and disease control:** Implement a unified livestock health system with compulsory vaccination and a robust disease reporting mechanism.
- **Strengthen service delivery and research:** Expand veterinary outreach (vet camps) and improve the quality and impact of public sector research.
- **Credit Access:** Introduce livestock-focused Kisan cards and herd-size-based credit scoring to expand formal finance.
- **Regulatory Simplification:** End public price fixing, enforce slaughter restrictions for young/female livestock, update livestock data collection, and implement third-party validation.
- **Training and Inclusion:** Utilize public universities and technical institutes to provide livestock training programs, including targeted programs for women.

Analytical Framework

The livestock sector encompasses sub-sectors such as livestock specific export policies, poor adoption of modern feeding & housing, institutional capacity deficit in research & extension bodies, all addressed within this unified framework.

#	Issues	Cost To Economy	Reform Proposals	Investment Cost[61]	Expected Outcome	Measurable KPIs	Action By
Policy & Regulatory Issues							
1.1	**Inadequate Animal Health Regulation and preventive medical care**	• Foot-and-Mouth Disease (FMD) alone is estimated to cause approximately USD 692 million in annual losses in Pakistan, accounting for about 70% of all livestock disease-related losses [62] indicating aggregated annual losses roughly near $800M	• National livestock health policy • Mandatory vaccination • Disease reporting system	• Effective vaccination coverage would require vaccination for Foot and Mouth Disease (FMD), Lumpy Skin Disease (LSD), Peste des Petits Ruminants (PPR) for small ruminants, Black Quarter (BQ), Haemorrhagic Septicaemia (HS). There are no estimates of costs of such vaccination, but based on vaccination prices and data, requirements would be for at least 2 million Livestock, costing around Rs 17 billion rupees[63]	• Reduced disease burden • Effective regulation in terms of ensuring healthy livestock	• Vaccination coverage % • Livestock mortality rate • Disease outbreak frequency	MNFSR, Provincial Livestock Depts, FAO, MNHSR (NIH for vaccination)

#	Issues	Cost To Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action By
Policy & Regulatory Issues							
1.2	**Absence of Livestock Specific Export Policies**	• Loss of potential exports • Loss of potential investment and jobs	• Establish and implement livestock export standards • Policies like development of halal meat branding	• No additional investment is needed; updating policy can be undertaken without it	• Changes to export policy • Increased export earnings	• Processed dairy/meat export value export rejection rate	MNFSR, TDAP, PSQCA
1.3	**Loss of earnings due to border closures and export restraints**	• Frequent border closures with Afghanistan causes export losses[64] • Government's attempts to keep Livestock prices-controlled leads to suspensions of exports to neighboring countries	• Federal and provincial governments need to review their price control policies against the estimated losses. A rise in prices and profits incentivizes expansion of supply and new investment which itself brings prices down • Creation of border markets for formal trade and Ease of	• There has already been considerable investment in border markets, and further investment is either being made or planned. For example, 3 border markets in Baluchistan were approved in 2021, with several inaugurated last year.[65]Similarly, WB had already earmarked $460 million for Pak-	• Lesser price interventions in market workings • Updated and functional border markets with neighboring countries	• Price interventions • Border market activity • Border markets investment	Planning Ministry, Interior Ministry, Commerce Ministry, Federal and Provincial governments

[61] *Investment Costs are just estimates and can vary depending upon the feasibility studies Investment Costs are just estimates and can vary depending upon the feasibility studies*
[62] *www.fao.org*
[63] *2 million Livestock* aggregate price of required vaccines*
[64] *'For example, just in the month of November 2025, the losses due to border closure with Afghanistan were estimated at $45 million, including that on account of Livestock*
[65] *ECC approves Rs. 300m allocation for three joint border markets in Balochistan', Zaheer Abbasi, BR, 24th June 2021. https://www.brecorder.com/news/40102633*

#	Issues	Cost To Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action By
Policy & Regulatory Issues							
			Doing Business	Afghan Road and trade development[66], aside from the considerable PSDP funding for upgrading border area infrastructure. These should be utilized.			
1.4	**Feed Quality, Public Sector Pricing policies and Policy Inconsistency**	• Price fixing (as in case of meat) introduces market distortions, whereby growers/suppliers cannot get a fair retail price, proving a disincentive for incentive (lost investment)	• End to public sector led price fixing of meat and other related markets. Prevalence of market pricing for development of markets	• Mainly legislative action and coordination required	• Minimum demand-supply gap in terms of fodder availability • Quality fodder leading to better fed and healthy Livestock • Market priced meat and other products	• Price interventions by federal and provincial authorities • Continuous availability of fodder • Meat exports • Investment in Livestock sector	MNFSR and provincial Livestock department

[66] *Tribune Express*

#	Issues	Cost To Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action By
Policy & Regulatory Issues							
		• There exists substantial gap in demand and supply of nutritious fodder for Livestock, which impacts its health. As per SBP report, the supply gap for dry fodder, protein and metabolizable energy was 19.4%, 37.2% and 38%.[67] • Policy has usually been focused on dairy only, and meat production has been relatively neglected, meaning Pakistan loses out on regional and international export potential	• Effective coordination between federal and provincial Livestock departments in terms of equilibrating the gap between fodder demand and supply				

[67] *'Analyzing Meat Export Potential of Pakistan' (2022), SBP Staff Notes, 3/22*

#	Issues	Cost To Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action By
Policy & Regulatory Issues							
1.5	**Unreliable statistics, masking/hiding reduction in Livestock**[68]	• Leads to unreliable estimates for various categories • Chances of FDI lessen due to unreliable data • Planning at government level becomes difficult • The killing of calves (even a day old) and female Livestock leads to reduction in Livestock, which leads to reduction in quantity and supply of meat, pushing up its prices and making meat unaffordable	• Analysis of PBS data methodology in terms of Livestock data collection, its extent and coverage • Third party validation of PBS results, based on provision of raw data • Ban and criminalize slaughtering of young calves, and only allow female buffalo slaughtering after their calf bearing age	• No additional investment is required; the system is already in place, needs only update.	• Reliable, validated statistics on Livestock • Higher quantity of Livestock over the coming years • Effective legislation against slaughtering calves and calve-bearing female Livestock	• Updated statistics • Percentage of calves and female Livestock in total • Quantity of Livestock	MNFSR and provincial Livestock department, Police, FIA

[68] *A recent survey by Dairy and Cattle Farmers Association of Pakistan exposed the government claim of more than 350,000 livestock in the area surveyed (Karachi Buffalo Colony). The total turned out to be 207,580, about 50 percent reduction from a few years ago. This exposes the unreliable nature of public sector statistics. It is noticeable due to claims of higher GDP growth rate rest to a substantial degree upon increase in Livestock. See https://x.com/DCFAPakistan/status/2010408834897199173*

#	Issues	Cost To Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action By
Access to Finance							
2.1	**Limited Formal Credit to Livestock Farmers**	• Less than 15% have formal access to credit • informal rates >30%[69]	• Livestock specific Kisan cards • credit scoring using herd size	• Agricultural insurance schemes are already being run/piloted at provincial level. These can be optimized upon/extended to Livestock	• Increased formal credit uptake • Increased Investment in Livestock quality and quantity	• Formal credit uptake rate • Livestock investment	SBP, ZTBL, MFIs, Banks
Technology Adoption							
3.1	**Poor Adoption of Modern Feeding & Housing**	• Traditional grazing areas are declining, leading to fodder and feed issues. This affects Livestock health. Fodder availability issue becomes especially critical in winter months	• Model dairy farms • Climate controlled housing	• It depends upon the target set by the government. As per SMED. As per a 2017 study, it costs Rs. 19.46 million for a farm of 50 cows.[70] By now, the cost for the same would be above Rs 40 million	• Increased milk/meat output	• Feed conversion ratio • milk per animal • % climate resilient sheds	MNFSR, Provincial Livestock Depts

[69] *Business Recorder*
[70] *commerce.gov.pk*

#	Issues	Cost To Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action By
Human Resource Issues							
4.1	**Lack of Trained Para-Vets**	• 1 vet per 100,000 animals	• Expand vet schools • certify community workers	• Public sector universities and technical training institutes can be utilized without any additional costs	• Better health & nutrition services	• Vet to animal ratio • Outreach %, • Satisfaction scores	MNFSR, Universities, NAVTTC
4.2	**Gender Gaps in Training**	• Women perform most livestock-related activities, including feeding, milking, and healthcare, yet remain excluded from formal training and extension services[71]	• Women-focused training • Mobile vet camps	• Public sector technical training institutions can be utilized without any additional costs	• Empowered women • Better care	• Female trainees % • women-led units	MNFSR, Universities, NAVTTC
4.3	**Institutional Capacity Deficit in Research & Extension Bodies**	• Low innovation and lack of quality research in breed, feed, and disease management	• Evaluate the research quality and output in public sector institutes	• Public sector technical training institutions can be utilized without any additional costs	• Better quality R&D • Research output leading to better breeds	• # R&D projects, extension coverage % • Livestock quality	MNFSR, PARC, Provincial R&D Units

[71] *sedc.lums.edu.pk*

#	Issues	Cost To Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action By
Market Access & Development							
5.1	**Fragmented Milk Collection & Cold Chain Gaps**	• 15–20% post-harvest losses	• Milk centers • Rural chilling infrastructure • Reefer vans		• Reduced spoilage • Higher prices	• Spoilage rate % • Chilling coverage • Income per liter	Dairy Boards, MNFSR, Private Sector
5.2	**Inadequate Export-Grade Infrastructure at Ports**	• Perishable losses; missed shipments	• Build live animal & chilled product zones at major ports (Karachi, Gwadar)	• Government should analyze the existing investment taking place and decide whether more is needed. In Gwadar, Chinese company Hangeng is already investing $50 million in building an international standard slaughterhouse	• Export readiness • Faster clearances	• Export time reduction • Rejection rate • Port storage capacity	MoP&S, TDAP, BOI

Investment Summary

The total stock of PSDP investment earmarked for Border Markets (including Livestock) since 2019-20 is 137.915 billion, of which only Rs. 53.32 billion has been spent, leaving Rs. 84.58 billion yet to be spent[72].

Year-wise Investment Summary *(PKR Billion)*

Category	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Policy & Regulatory Issues						72.8
1.1 Animal Health Regulation and Preventive Medical Care	1	2	4	5	5	17
1.3 Border Markets	11.16	11.16	11.16	11.16	11.16	55.8
Access to Finance						-
Technology Adoption	0.16	0.16	0.16	0.16	0.16	0.81
3.1 Modern Feeding & Housing	0.01	0.2	0.2	0.2	0.2	0.81
Human Resource Issues						-
Market Access & Development						-
Tax Structure						-
Total	**12.33**	**13.52**	**15.52**	**16.52**	**16.52**	**74.42**

**Proposed interventions based investment estimates*

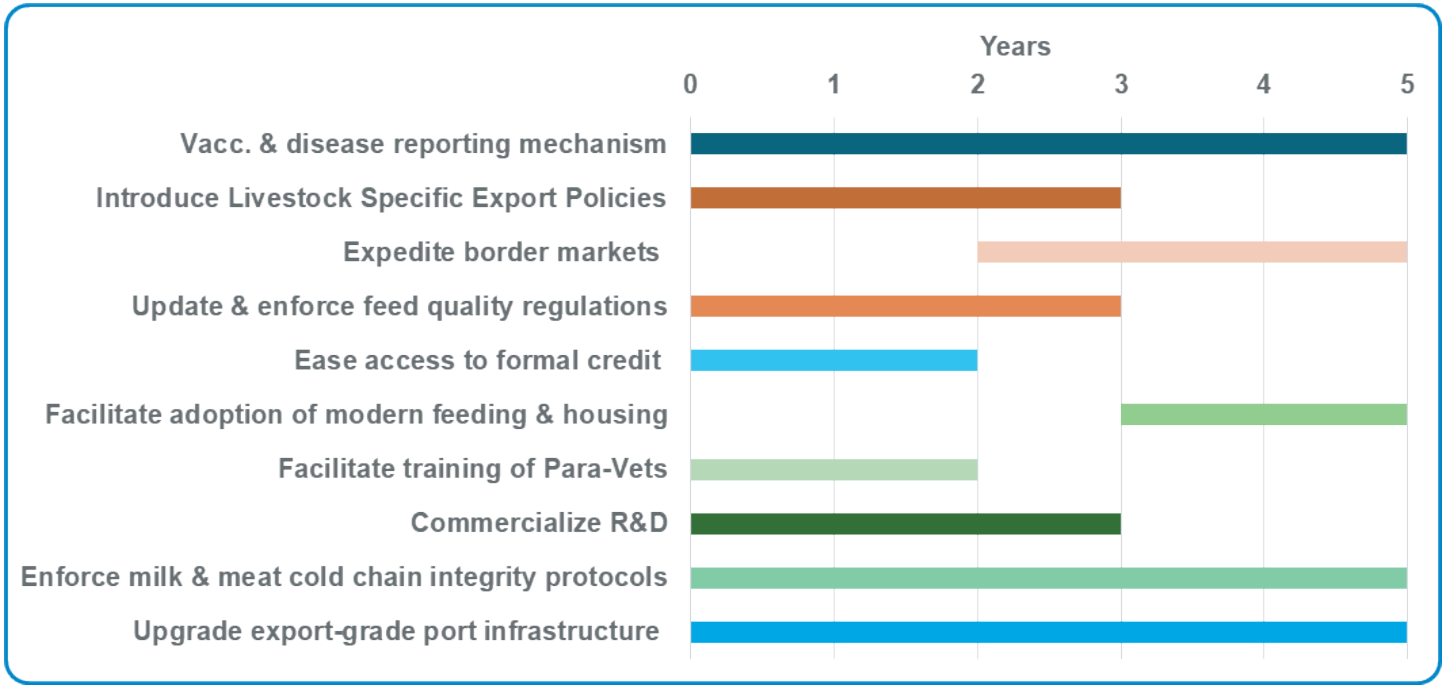
[72]*PSDP 2025-26*

Investment Multiplier

The multiplier impact of investment in Pakistan differs by different studies. Majority of studies have been done in context of PSDPs impact since it tends to be the largest portion of investment on aggregate (there is little in terms of estimates of private investment multiplier). However, there is no unanimity in terms of the size of multiplier. Almost all studies put it below 1, between 0.5 and 1. We will use 0.6 as the multiplier of investment based on these studies.

The investment multiplier value for the Livestock sector is Rs 44.65 billion spanned over 5 years.

Year-wise Interventions in Livestock Sector



Conclusion

The livestock sector is vital for Pakistan's food security, rural livelihoods, and GDP, yet remains constrained by high post-harvest losses, low value addition, limited veterinary services, and weak infrastructure. Short-term reforms like vaccination, credit access, and regulatory improvements, combined with long-term investments in cold chains, border markets, and high-value livestock production, are essential. These measures can enhance productivity, reduce losses, and strengthen the sector's integration into global markets.

FISHERIES

Key Statistics

Current Performance:

- **GDP Contribution:** 0.31[73]% of GDP - significantly below potential of 2-3%.
- **Export Value:** ~$465M in FY25, missing $500M target and <0.1% of global $840B seafood market
- **Marine Resources:** Large EEZ underutilized with 60-90% of marine stocks overfished
- **Post-Harvest Losses:** 20-30% fish loss due to inadequate cold chain and processing infrastructure
- **Aquaculture Share:** Only 35% of total fish production despite significant freshwater resources
- **Formal Sector:** <20% of fishery operators formally registered and compliant

Global Context & Rankings:

- **Export Potential:** Only $400-500M annually vs potential $1.5B+ in regional trade
- **Market Share:** Stuck in low-value Gulf/Africa markets missing premium EU/Japan opportunities
- **Regional Competitiveness:** Limited to basic seafood exports, lacking value-added processing
- **Certification Gap:** Low adoption of international standards (HACCP, MSC, eco-labels)
- **Gender Participation:** <5% women participation vs global best practices of 15-20%
- **Technology Adoption:** Minimal use of VMS, digital tracking, and modern fishing techniques

Infrastructure & System Gaps:

- **Port Infrastructure:** Karachi & Gwadar operating below capacity with inadequate fish terminals
- **Cold Chain:** Fragmented, insufficient cold storage and reefer transport network
- **Processing Facilities:** Limited value-addition capabilities, mostly basic cleaning/packaging
- **Regulatory Framework:** Fragmented governance between federal and provincial authorities
- **Monitoring Systems:** Weak stock assessment and catch documentation systems

Innovation & Technology Infrastructure:

- **Digital Systems:** <10% of fishing operations use digital tracking and documentation
- **Automation Level:** Minimal use of IoT, AI, or automated systems in logistics
- **R&D Investment:** <0.1% of sector revenue invested in fishery technology innovation
- **Climate Resilience:** Vulnerable to climate change impacts on marine ecosystems

[73] *https://www.finance.gov.pk/survey/chapter_25/2_Agriculture.pdf*

Strategic Importance

The fisheries sector has significant untapped potential in terms of contribution to GDP and to development of local economies, with a large Exclusive Economic Zone (EEZ) and substantial freshwater resources that remain underutilized. However, 60–90% of marine stocks are overfished, and the sector remains constrained by weak infrastructure, low technology adoption, and limited value-added processing, limiting its ability to realize its full economic potential.

The sector currently contributes 0.31% to GDP,[74] which is significantly below its estimated potential of 2–3%. Aquaculture accounts for only 35% of total fish production despite significant freshwater resources. Productivity remains constrained by post-harvest losses of 20–30% due to inadequate cold chain and processing infrastructure, while less than 20% of fishery operators are formally registered and compliant.

Pakistan's fisheries exports were approximately $465 million in FY25, missing the $500 million target and representing less than 0.1% of the global $840 billion seafood market.

Key Challenges

- **Overfishing:** 60–90% of marine stocks are overfished amid absent regulation and enforcement.
- **High Post-Harvest Losses:** Fragmented cold chain systems, insufficient storage, and limited reefer transport networks result in 20–30% post-harvest losses.
- **Inadequate Infrastructure:** Karachi and Gwadar ports operate below capacity, while processing facilities are limited to basic cleaning and packaging, offering minimal value addition.
- **Negligible Digitalization and R&D:** Less than 10% of fishing operations use digital tracking and documentation systems, and research and development investment remain below 0.1% of sector revenue. Export under-invoicing leads to low export revenue (reported).
- **Fragmented Governance:** Federal-controlled waters lack effective oversight, and divided authority among MoMA, MoNFSR, and provincial agencies delay reforms and discourage investment.
- **Weak Monitoring and Enforcement:** Inconsistent provincial policies, weak stock assessment, and widespread IUU fishing have left 60–90% of marine stocks overfished. Weak enforcement of fishing and hygiene standards prolongs EU and US export bans.
- **Inefficient Value Chains:** Weak cold chain infrastructure, fragmented supply systems, and untreated sewage (~500 million gallons daily) degrade the marine ecosystem and contribute to 20–30% post-harvest losses.
- **Limited Credit Access:** Export under-invoicing and restricted access to credit hinder diversification and modernization.

[74] *SBP*

Reform Proposals

Long Term

- **Update Fishing Legislation:** Delegate enforcement to the Maritime Security Agency and revamp the Deep Sea Fishing Policy.
- **Upgrade Supply Chain Systems:** Implement infrastructure for selective fishing gear, protected breeding zones, and longlining practices for sustainable fisheries.
- **Strengthen Certifications:** Support certification programs and compliance mechanisms to facilitate access to EU, US, GCC, and Japan markets.
- **Establish Fisheries Hubs:** Develop facilities in Karachi, Gwadar, and Pasni with cold storage, grading, packing centers, and reefer transport networks.
- **Expand Monitoring Infrastructure:** Scale up satellite tracking and digital catch documentation for improved compliance and IUU reduction.

Short Term

- **Promote Sustainable Fishing Practices:** Ban bottom trawling, subsidize selective gear, encourage longlining, and establish protected breeding zones.
- **Digitize Export Oversight:** Implement AI-supported export invoicing and monitoring to reduce under-invoicing.
- **Provide Fisheries Credit and Certification Support:** Introduce targeted credit lines and assist exporters in obtaining HACCP, MSC, and other international certifications.
- **Harmonize Regulations:** Align federal and provincial rules on equipment, gear use, and fishing zones.

Analytical Framework

The Fishery sector encompasses sub-sectors issues such as fragmented governance & regulation, underutilized marine and inland resources, informal, unregulated coastal labor, and weak port-based infrastructure & market linkages, all addressed within this unified framework.

#	Issues	Cost To Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action By
Policy & Regulatory Issues							
1.1	**Fragmented Governance & Regulation**	• Federal-controlled fishing area practically a no-man's land/sea, hence curtailing governance of fishing. • Policy does not provide effective enforcement mechanisms • Fragmented governance between MoMA, MoNFSR, and provinces delays reforms, weakens enforcement, and deters investment – a key barrier flagged in 2025 stakeholder workshops[75]	• Update legislation to delegate enforcement of fishing regulation to Maritime Security Agency • Revamp Deep Sea Fishing Policy • Introduce and enforce rigorous zoning policy • Unified National Licensing Authority. • Harmonized rules; provincial coordination unit	• No investment is required for policy and legislative changes.	• Single, unified federal and provincial framework. • Clarity in terms of zoning rules;	• Policy clarity; • Effective zoning; • Licensing time;	Provinces, Ministry of Maritime Affairs (MOMA)

[75] *The Nation*

#	Issues	Cost To Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action By
Policy & Regulatory Issues							
		• No provincial policy harmonization as well, leading to inconsistent gear and trolley net use bans[76]					
1.2	**Inadequate Stock Monitoring & Enforcement**	• Overfishing, Illegal, unreported and unregulated (IUU) fishing, weak catch data systems. 60–90% of Pakistan's marine stocks are reportedly overfished; fine-mesh/illegal nets widespread[77] • Trawling, juvenile catch, illegal nets reduce fish stocks & hurt exports[78]	• Satellite-based tracking (VMS), digital catch documentation, regular stock assessments • Ban bottom trawling. • Subsidize selective gear. • Promote longlining and protect breeding zones	• Investment depends upon the number of GPS fitted boats used for tracking. Per boat system cost is $500[79] • Estimate- Rs. 25 billion	• Sustainable harvest • EU, Indian Ocean Tuna Commission (IOTC) compliance	• # IUU cases; stock reports. • % covered by CDD • Gear upgrade %. • By-catch drop. • Eco-cert rate	MoMA; SUPARCO

[76] *pbc.org.pk*
[77] *pbc.org.pk*
[78] *pbc.org.pk '*
[79] *Challenges, Opportunities, and Costs of Electronic Fisheries Monitoring' (2020), EDF*

#	Issues	Cost To Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action By
Policy & Regulatory Issues							
1.3	**Export Under-Invoicing**	• Underreported exports to park the proceeds abroad.	• Digitize invoicing with AI-support to assess, compare and tag invoices that don't match the market price of the product	No investment is required, as only regulatory changes needed.	• Improved export revenues	• Increased fisheries' share in export revenue	Customs/FBR
1.4	**Sea Pollution**	500 million gallons of Karachi's sewage water dumped into sea without treatment. All fish in a 25 km-long area in Pakistani sea was dead, as per a 2013 survey.	• Installation of sewage treatment plants • Check and balance regarding these installations	Rs.650 million	• Cleaner water that increases the area where fish can be found	• Amount of sewage being dumped into the sea • Increase in area where fish can be found	Karachi Water and Sewerage Corporation (KW&SC)
1.5	**Lackluster enforcement of fishing equipment and hygiene-related standards in seafood processing**[80]	• Prolonged EU and US bans on Pakistan's fisheries exports, blocking the high-end export markets	• Training and regulation enforcement regarding fishing and seafood processing	Rs. 2,411 million	• Increased exports in high-end markets of the US and EU	• Lifting of bans or satisfactory feedback by inspection missions	Marine Fisheries Department

[80] *https://profit.pakistantoday.com.pk/*

#	Issues	Cost To Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action By
Access to Finance							
2.1	**No credit available for value addition and no assistance for attaining international certification**[81]	• No export diversification, no edge in lucrative products • Curtailed access to international markets due to lack of certification	• Introduce credits for targeted fisheries products • Assist exporting firms in acquiring certification	• State Bank can specify fisheries in the existing credit lines. No additional investment needed.	• Sector growth, enhanced jobs,	• Export value; GDP share; # jobs created	SBP, Provincial Revenue Departments
Technology Adoption							
3.1	**Weak Value Chain & Infrastructure Leading to Limited Exportable Stock and Higher Post-Harvest Losses**	• 20–30% fish loss due to lack of cold chain, basic processing[82] • Weak value chains limiting access to farther markets • Inadequate infrastructure in terms of logistics, traceability, bonded labs[83]	• Establish hubs (Karachi, Gwadar, Pasni), reefer trucks, grading/packing centers • Cold storage, processing plants, vessel-based freezers • Upgrade Karachi, Qasim, Gwadar ports with fish terminals, cold chains, export zones	Rs. 49.12 billion	• Less spoilage, higher margins, export readiness • Export price lift, premium market access	• % processed fish. • Wastereduction. • Cold storage capacity	Board Of Investment (BOI), Trade and Development Authority of Pakistan (TDAP), MoMA

[81] *Which is international practice according to EPBD's consultative session with industry experts*
[82] *worldbank.org*
[83] *frontiersin.org*

#	Issues	Cost To Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action By
Human Resource Issues							
4.1	**Gender Exclusion in Value Chain**	<5% women in fisheries; no support for MSMEs or female workers[84]	• Women-led cooperatives. • packaging & processing support. • gender-focused training	The existing facilities can be used for this purpose without any additional costs	• Income diversification, skills, • Local resilience	• % women. • # MSMEs. • Income rise	NAVTTC,
4.2	**Informal, Unregulated Coastal Labor**	• Fisheries related labor force in Pakistan largely works informally and remain excluded from labor protections, social insurance, and safety training—though no up-to-date formal statistics (e.g., 70–80%) are publicly quantified in recent 2024–25 sector publications[85]	• Register labor with EOPBI for post-work perks like pension. • Cooperative support & training	No investment needed	• Safer work conditions, • Formal economy shift	• % of labor force that is formalized. • Injury rate. • # trained	MoHR, Labour Depts

[84] *https://www.iwmi.org/blogs/investing-in-women-is-the-key-to-pakistans-agricultural-growth*
[85] *https://www.pbc.org.pk/wp-content/uploads/Seafood-Policy-Brief.pdf*

#	Issues	Cost To Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action By
Market Access & Development							
5.1	**EU and US Ban on Pakistani firms due to inadequate fishing gear, unhygienic practices and low engagement/low political will by government to act**	Curtailed exports to high-end markets	• Launch certification fund (HACCP, MSC); seafood brand strategy; digital tracking, • Active engagement of state partners to expedite lifting of bans	Rs. 18.69 billion	• Higher export price, • Access to EU/US/GCC/Japan	• % certified exporters. • Reduced bans	TDAP, Ministry of Commerce, Exporters Association

Year-wise Investment Summary *(PKR Billion)*

Category	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Policy & Regulatory Issues						**27.65**
1.2 Stock Monitoring & Enforcement	2.00	4.00	5.00	6.00	8.00	25.00
1.4 Sea Pollution	0.08	0.10	0.15	0.18	0.15	0.65
1.5 Enforcement of sea processing hygiene and other standards	0.10	0.25	0.50	0.75	0.40	2.00
Access to Finance						**-**
Technology Adoption						**-**
3.1 Modernized value chain and infrastructure	4.00	5.00	10.00	15.00	15.00	49.00
Human Resource Issues						**-**
Market Access & Development						**19.00**
5.1 Implementing EU and US standards	5.00	3.00	4.00	4.00	3.00	19.00
Tax Structure						**-**
Total	**11.175**	**12.35**	**19.65**	**25.925**	**26.55**	**95.65**

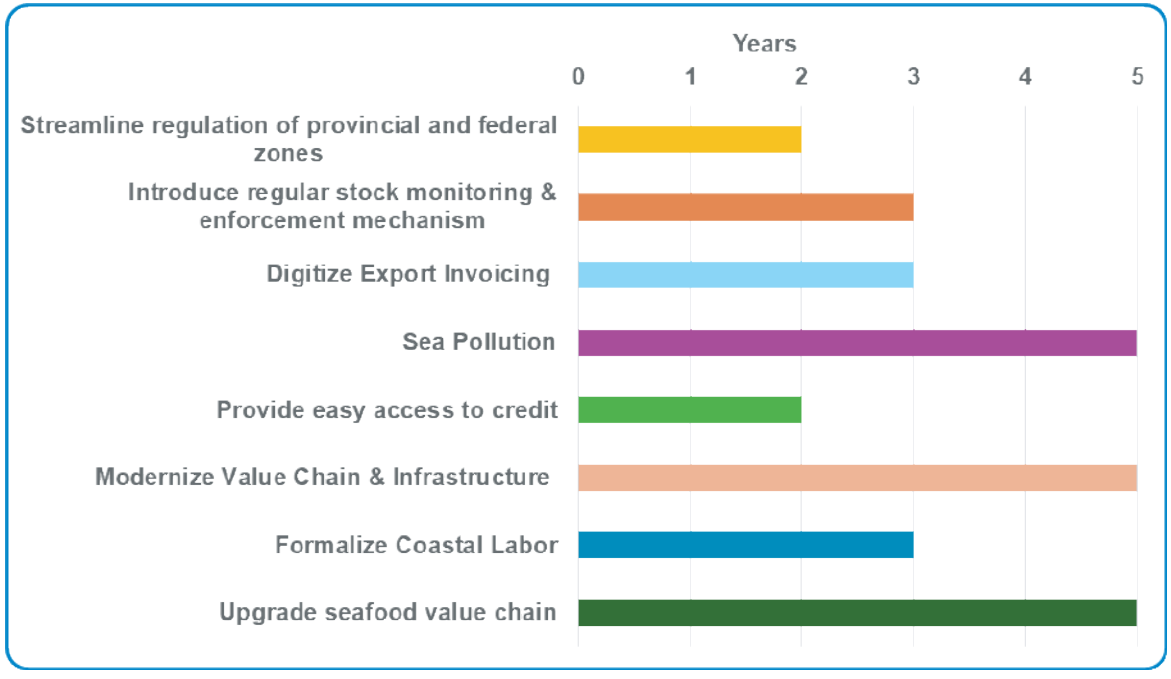
**Proposed interventions based investment estimates*

Investment Multiplier

The multiplier impact of investment in Pakistan differs by different studies. Majority of studies have been done in context of PSDPs impact since it tends to be the largest portion of investment on aggregate (there is little in terms of estimates of private investment multiplier). However, there is no unanimity in terms of the size of multiplier. Almost all studies put it below 1, between 0.5 and 1. We will use 0.6 as the multiplier of investment based on these studies.

The investment multiplier value for the Fisheries sector is Rs.57.39 billion, spanned over 5 years.

Year-wise Interventions in Fisheries Sector



Conclusion

The fisheries sector holds substantial untapped potential but remains constrained by overfishing, weak governance, and inadequate infrastructure. High post-harvest losses, limited value addition, and low export competitiveness further restrict its contribution to GDP and global markets. Targeted reforms—combining sustainable fishing practices, regulatory harmonization, and digital monitoring with long-term investments in infrastructure and certification—are essential. Effective implementation can enhance productivity, restore marine resources, and position Pakistan as a competitive player in global seafood markets.

PHARMACEUTICAL & BIOTECHNOLOGY

Key Statistics

Current Performance :

- **Total pharmaceutical companies:** More than 800 companies, of which 639[86] registered
- **Pharmaceutical exports:** $457 million (grew 34% from FY24, but still significantly below potential)
- **Domestic market size:** US $3.3 billion domestic market (2025), based on reported sales of 450 firms
- **Industry growth rate:** 9-12% per annum over the las 5 years
- **Domestic market share:** 75%-80 of pharmaceutical product demand fulfilled by local firms
- **Distribution % of sales:** Top 100 firms have 95% share of total sales of $3.2 billion
- **Informal market:** Presence of a huge informal market in which smuggled and short medicines are sold
- **Market for public sector procurement:** Federal and provincial governments procure medicines worth PKR 75 + every year
- **Import dependency for manufacturing:** 95% of raw material for medicine manufacturing is imported

Global Context & Rankings:

- **Pakistani pharma as % of global Pharma market:** Not even 0.5% of the $1.6 trillion plus global pharma market
- **Regional export Comparison:** India pharma exports >$30 billion vs Pakistan's $457 million
- **FDA equivalent facilities:** Zero FDA equivalent testing facilities/labs, severely limiting Pakistan's export potential
- **Per capita medicine expense:** $22-25, compared to global average of $1,000+ and $1,500+ in industrialized countries[87]

Domestic Infrastructure & Expenditure:

- **Out-of-Pocket (OOP) average expense on medicine (as % of total health expense):** > 50%
- **R&D centers:** Limited public and private sector facilities for research. Zero research into New Chemical Entities (NCE)
- **Medicine testing and quality:** 8 WHO certified labs now working in Pakistan aside from already existing public sector labs
- **University programs:** 100+ universities offer biotech degrees with increasing academia-industry collaboration
- **Regulator:** DRAP, founded in 2012, is the main regulator, while regulatory institutions are also at provincial level
- **Regulatory issues:** Differences between industry and regulator over various issues, especially pricing of medicines

[86] *Registered with the regulator DRAP*

[87] *Source: Statista, 'Pharmaceutical spending per capita in sleeted countries as of 2023'. Pakistan's per capital expense was calculated on the basis of its per capita health expense, in which at least half goes to expense of medicines*

Strategic Importance

The pharmaceutical sector holds significant strategic importance in Pakistan because it directly supports public health and economic stability. A strong domestic pharmaceutical industry ensures the local production and reliable supply of essential medicines, reducing dependence on imports and improving access to affordable healthcare for the population. Strategically, the industry acts as a critical buffer against global supply chain disruptions and foreign exchange volatility by reducing the reliance on high-cost finished drug imports. Additionally, the sector contributes to economic growth through job creation, technological development, and export potential. By strengthening research, manufacturing capacity, and regulatory standards, Pakistan's pharmaceutical industry can enhance healthcare resilience, support innovation, and play a key role in responding to public health emergencies. Prioritizing the pharmaceutical sector in Pakistan is essential for achieving national health sovereignty and driving economic diversification beyond traditional sectors.

By the end of 2025, Pakistan's pharmaceutical market crossed the landmark Rs 1 trillion annual values, placing it among the largest industrial segments in the country.[88] Local manufacturers drove most of this stability. Pakistani firms now command over 80% of the domestic pharmaceutical market by value. The sector contributes approximately 0.8% to Pakistan's total GDP.[89] In FY2025, pharmaceutical exports reached a record $457 million (up 34% from the previous year), but they still remain a fraction of India's pharmaceutical exports that exceeded $30 billion in the same period.

Key Challenges

- **Restrictive Pricing and Regulatory Barriers:** A rigid medicinal pricing regime and adverse regulatory frameworks discourage both domestic expansion and foreign direct investment (FDI).
- **Infrastructure and Standards Deficit:** A significant gap in international infrastructure standards prevents the local industry from becoming a formidable global competitor.
- **Underutilized Research Resources:** The Central Research Fund (CRF) remains either underutilized or non-productively deployed, stalling high-value technology transfer.
- **Limited Clinical Capacity:** A critical dearth in the quantity and quality of bioequivalence and clinical trial centers limits the industry's ability to innovate and diffuse new technologies.
- **Escalating Operating Costs:** Profitability is squeezed by a rising cost of doing business, driven by high taxes and a lack of specialized SME financing.
- **Market Integrity Issues:** The domestic market is severely undermined by a chronic smuggling conundrum and the persistent prevalence of sub-standard and counterfeit medicines.
- **Litany of taxes and charges:** Heavy taxation and transaction costs are increasing costs of doing business, forcing documented pharmaceutical companies to either absorb the cost or struggle with undocumented wholesalers.

[88] *https://www.thenews.pk/print/*
[89] *LCCI Research Report 2025: Scope of Pharmaceutical Sector in Pakistan*

Reform Proposals

Long Term

- **Global Accreditation Program:** Launch a state-subsidized "Export Startup" initiative to help at least 50 local plants achieve WHO Prequalification or US-FDA/EU-GMP standards, enabling entry into high-value regulated markets.
- **Clinical Research Hubs:** Establish Specialized Bioequivalence Centers through Public-Private Partnerships (PPP) in major cities, providing the infrastructure required for high-end technology transfer and biologicals manufacturing.
- **API Local Manufacturing Policy:** Provide subsidized specialized financing for chemical plants to reduce the industry's 90% dependency on imported raw materials.
- **Academic-Industrial Integration:** Overhaul pharmacy and chemical engineering curricula to include Mandatory Industrial Residencies, ensuring graduates are trained in modern manufacturing standards and regulatory compliance.
- **Integrated Supply Chain Security:** Fully transition to a Geographic Information System (GIS)-mapped supply chain that monitors medicine movement from factory gates to rural pharmacies, effectively eliminating the smuggling conundrum.

Short Term

- **Dynamic Pricing Mechanism:** Replace the rigid price freeze with a Consumer Price Index (CPI)-linked automatic adjustment for non-essential drugs to help manufacturers absorb rising API (Active Pharmaceutical Ingredient) and energy costs.
- **Central Research Fund (CRF) Activation:** Redesign the CRF rules to allow companies to redirect their mandatory 1% gross profit contribution toward in-house, verifiable R&D and international bioequivalence studies rather than a stagnant central pool.
- **Fiscal Rationalization:** Implement an "Adjustable Sales Tax" model on raw materials to ensure that the 18% GST does not result in a liquidity crunch for documented manufacturers.
- **Aggressive Market Surveillance:** Launch a National Digitized Track-and-Trace System for life-saving drugs to combat smuggling and the $1B+ counterfeit medicine market.
- **Fast-Track Regulatory Approvals:** Harmonize DRAP (Drug Regulatory Authority of Pakistan) to reduce the approval timelines for clinical trials and BA/BE (Bioavailability/Bioequivalence) studies.

Analytical Framework

The pharmaceutical sector encompasses sub-sectors such as biotechnology, biopharma (vaccines, biosimilars), agricultural biotech, industrial biotech, and medical devices, all addressed within this unified framework.

#	Issues	Cause	Cost to Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action By
Policy & Regulatory Issues								
1.1	**Medicine pricing regulation**	• Historically speaking, governments have kept a tight control over medicine pricing, without allowing medicine price formation through demand and supply. Firms have to apply for permission to increase prices (especially life-saving medicines) rather than prices being dictated by	• Lost investment as persistent pricing issues lead to investment delays and firm production closures • Many MNCs have closed shop in Pakistan mainly due to persistent pricing issues • Persistent medicine shortages, especially life-saving medicines,	• De-politicize medicine pricing. Cabinet should have nothing to do with medicine Pricing • Prices should be allowed to fluctuate as per the market conditions, forex rates and a set formula (as in 2018 pricing policy).	• Would require following of already set rules for pricing, and legal changes to end Cabinet's role in pricing and allowing of differentiated market	• End to persistent medicine shortages, especially life-saving medicines • Regular availability of medicines, especially in public sector health facilities • Higher investment (local and foreign) • Differentiated market segment in medicine	• Resolution of pricing issues • Availability of medicines (especially life-saving) • Quantum of investment in the pharmaceutical sector	Cabinet Division, MNHSR, DRAP

#	Issues	Cause	Cost to Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action By
Policy & Regulatory Issues								
		costs or marginal pricing principles, etc.	mainly due to pricing issues. Prices reach astronomical levels in black market, costing consumers and patients	Government should not renege on already approved pricing policies and resort to SROs. Their intervention should be limited to instances of substantial increase in medicine prices, well beyond the agreed-upon formulae		• Production of imported medicines (like vaccines) at home		

#	Issues	Cause	Cost to Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action By
Policy & Regulatory Issues								
				• Allow for differentiated markets in medicines (low-priced and high-priced segments), whereby pricing is based upon the quality of APIs used.				
1.2	**Adverse regulations hindering domestic and foreign investment, and production**	• Low domestic Production of APIs • Toll manufacturing issues • Forex repatriation • Price discovery	• The incentive structure faced by the pharmaceutical industry is adverse in the sense that it dis-incentivizes domestic production, like that of APIs, which is cost-efficient to import rather than produce here	• Analysis and discussion of incentive structure at the Govt level, as to what hinders domestic production. Gradual movement towards relaxing regulatory constraints on production, as in case of	• Regulatory and administrative changes mainly, without an y monetary expense	• Increased toll manufacturing activity • More production of imported items at home	• Toll manufacturing • Domestic Manufacturing of the imported items	• MNHSR, Federal government, DRAP, MoE

#	Issues	Cause	Cost to Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action By
Policy & Regulatory Issues								
			• Strict dollar repatriation policies one of the main reasons for low FDI and MNCs leaving • Toll manufacturing (outsourcing of medicine production to Pakistan by international firms) needs frequent permissions from regulator	pricing final products • End to power sector cross-subsidies, whose burden falls disproportionally on industries, making production expensive • Once a globally reputed firm gives license for				

#	Issues	Cause	Cost to Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action By
Policy & Regulatory Issues								
			• Price discovery by firms through competitive pressures absent since government decides the medicine prices	production to domestic producers, domestic regulator should only intervene if there is evidence of some substantial diversion in terms of quality or like aspects. Otherwise, there should be no requirement for affirming production				

#	Issues	Cause	Cost to Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action By
Policy & Regulatory Issues								
1.3	**International Standards Gap of infrastructure and re-evaluating Central Research Fund (CRF)**	• The gold standard for quality and opening international export markets in pharmaceuticals in the US FDA-approved manufacturing and testing facilities limiting access to premium, high-income/high sales markets. This is despite the fact that federal government collects yearly charge (CSR, collected since 1976) in the name of	• Without FDA level facilities, Pakistan's exports remain concentrated in low-income and lax regulation markets like Africa and Afghanistan. Our exports still cannot break- through in the high-income markets like North America and Europe, with a potential loss of dollars in exports of pharmaceutical products	• Re-calibrate/re-design the CRF charge in a manner that it becomes an incentive for value added through research and facility upgradation. Specifically, limit the CRF flow towards government treasury to the extent that it helps meet the regulator's basic operating expense. The other amount (out of the SRF 1% of total annual industrial sales) should be used as a 'subsidy' for	• Required investment would be related to public sector as the proposed change in CRF would act as an incentive to industry to upgrade their facilities. Regarding quantum of investment for upgrading research and production facilities, the fixed and variable costs of FDA approvals vary. Basic safety and efficacy related fee range up to	FDA-approved facilities operational	• Number of FDA/WHO-GMP certified facilities • International regulatory recognition scores	• Ministry of Commerce • PPMA • Private pharmaceutical companies

#	Issues	Cause	Cost to Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action By
Policy & Regulatory Issues								
		building world class health facilities and research centers. Yet there are no FDA approved facilities in Pakistan, and CRF utilization over the years is shrouded in mystery	• There is little or no research in pharmaceutical products or bio-technology, which creates value. Therefore, Pakistan's pharma products remain largely untouched in terms of technology and research application, adding value to final product	up-grading facilities to FDA approved quality	$30,000, something necessary for breaking into tightly regulated, high income markets. Probable estimate be at least $500,000 and above for upgrading public sector facilities[90]			
1.4	**Prevalence of low-quality medicines**	• Pakistan's medicine market,	• Bad reputation for Pakistan as a	• Strict monitoring of	• This investment is covered	• Significant reduction in instance of	• Low-quality medicine prevalence in	Ant-Narcotics force (ANF), DRAP,

[90] *Source: 'The cost of getting FDA approval for your products explained', Fulfyld, available at https://www.fulfyld.com/blog/how-much-does-it-cost-to-get-fda-approval-for-your-products/ The estimated cost of $500,000 + is the least cost estimate for overall upgrade of public sector facilities (like drug testing labs) to this standard*

#	Issues	Cause	Cost to Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action By
				Policy & Regulatory Issues				
	and smuggling conundrum	especially in peri-urban and rural areas, is filled with low-quality medicines (spurious, counterfeit, low-efficacy) • Pakistan has long been a transit for banned/restricted pharmaceutical raw material and final products to various destinations around the globe	conduit/transit for banned/restricted products • Population level perpetuation of health hazards due to the prevalence of sub-standard medicines, sometime even leading to death	production facilities, especially those off of regulator's approved list • Frequent testing of samples picked from market • Blacklisting of firms found to be producing sub-standard medicines • Public sector procurement should do away with 'least-cost' medicine provision since it helps low-quality	under upgradation of testing facilities	low-quality medicines • Smaller quantum of black market in medicinal products (raw material and final products) • Reduction in instances of smuggled products making its way into Pakistan and out of it	pharma retail markets • Smuggling to and from Pakistan of pharma products	provincial pharmaceutical regulators

#	Issues	Cause	Cost to Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action By
				medicine producers stay in the market				
Access to Finance								
2.1	**SME pharmaceutical financing**	• Limited access to specialized financing for small and medium pharmaceutical enterprises	• Non-development of mid to small-sized specialized value chains that could provide the requisite service to the Pharma industry. For example, pharma producers are reliant on imported machinery since manufacturing and maintenance service firms at local level are few or none	• Launch Pharmaceutical Venture Capital Fund • Implement SME-focused pharmaceutical financing schemes	None	Pharmaceutical startups established	• Number of pharmaceutical SMEs financed • Average financing amount per SME	• State Bank of Pakistan • Commercial banks

#	Issues	Cause	Cost to Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action By
Technology Adoption								
3.1	**Technology transfer and technology diffusion for value addition and production**	• The incentive structure, specially pricing and research structure, is such that firms have little or no incentive to indulge in technology upgradation and technology transfer	• Low value-addition • Low technology base • Difficulty for products breaking through into top pharma markets (by sales)	• Change in CRF regulations, as discussed above • Representation of pharmaceutical industry in MoIP's Productivity development/enhancement initiatives supported by various donors	• Changes to regulations	• Technological upgrades at firm level • Higher overall productivity • Value-addition to products	• Technology upgrades • Aggregate productivity • Productivity enhancement trainings	• Ministry of Commerce • MoIP
3.2	**Dearth of Bioequivalence Centers and Chemical Trial Centres**	• Establishing BE centers requires advanced laboratory infrastructure, skilled personnel, and international	• Increased Dependence on Foreign Testing Services: Local manufacturers must send drugs abroad for BE	• Covered under the proposed changes related to CRF	• Top-quality bio-equivalence labs cost around Rs. 100 million[91], at least. The CRF fund outlay can be	• Establishment of accredited BE centers across major cities, enabling faster and cheaper drug validation	• Increase in number of Accredited BE Centers • Average Cost Reduction in BE Testing (%)- At least 30%	- DRAP, - MNHSR

[91] *Source: 'Committee formed to look into establishment of bio-equivalence lab', DAWN, 18th March 2018.*
Given that it's a 2018 estimate, the costs now would be significantly higher given inflation and decline in foreign exchange rate.

#	Issues	Cause	Cost to Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action By
Technology Adoption								
		approval, areas where public and private investment has been minimal.	studies, increasing costs and delaying product launches. • Barrier to Generic Drug Development: Lack of accessible BE testing hinders generic drug registration, limiting affordable medicine availability and local industry growth		used for this purpose	• Enhanced capability to produce and export WHO-compliant generics, improving trade balance and access to affordable medicines	reduction in per-study cost for local manufacturers.	

#	Issues	Cause	Cost to Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action By
Human Resource Issues								
4.1	**Industry-Academia Skills Alignment and Curriculum development**	• Growing alignment between university programs and industry needs through PPMA advised supported training initiatives for skills and curriculum upgradation	• Lesser value addition to products • Lower demand for Pakistani trained human capital in Pharmaceuticals	• Coordination between PPMA and government for training programs for pharmaceutical professionals • Establish technology and skill focused Pharmaceutical Training Centers	• Use available technical training facilities, as in various universities, TVTA, etc.	• Pharmaceutical professionals trained to international standards	• Number of certified pharmaceutical professionals • Industry-academia partnership agreements	• Higher Education Commission • Pakistan Pharmaceutical Manufacturers Association
Market Access & Development								
5.1	**International Market Penetration & Brand Recognition**	Despite manufacturing capability, Pakistani pharmaceutical companies have minimal international brand recognition	• Due to not having world class infrastructure, approved by top international bodies like FDA, Pakistani pharmaceutical products miss out on potential of dollars of	• As discussed above, penetration in international markets, especially the high income North American and European	Discussed above	• Pharmaceutical export growth • Export to North American and European market	• Export percentage to North America and Europe	FBR, MNHSR, Trade Development Authority of Pakistan (TDAP)

#	Issues	Cause	Cost to Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action By
Market Access & Development								
			sales in heavily regulated North American and European markets	markets, is critically dependent upon upgrading facilities to international level, especially FDA approved facilities				
Tax Structure								
6.1	**Litany of taxes and charges, increasing costs of doing business**	• As per the SRO No. 1324(I)/2024, dated 30th August 2024, there are 132 different types of charges that the regulator, DRP, charges for various services. This is besides the considerable	• Tax barriers and number of charges limiting pharmaceutical export competitiveness and prospects of new investment	• Complete revision of the charges applicable in lieu of various services. For example, there is a need to revisit charges in lieu of establishment of bio-equivalence labs, something	None	• Significantly lower quantum of charges, making newer investment less expensive, or perpetuating higher investment	• Number of taxes/charges for services provided by DRAP Quantum of investment	• Federal Board of Revenue (FBR) • DRAP/ MNHSR

#	Issues	Cause	Cost to Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action By
Tax Structure								
		amount that befalls its coffers under CRF tax/charge.		that Pakistan and its pharmaceutical industry needs. These charges need to be reduced significantly				
6.2	**Import Duty Rationalization**	• High import duties on pharmaceutical raw materials and equipment increasing production costs	• Cost Disadvantage - Import duties making Pakistani pharmaceutical manufacturing less competitive	• Rationalize import duties on Pharmaceutical Raw Materials, especially those needed in life-saving medicines • Create Duty-Free Import Facility for FDA-certified manufacturers	None	• Reduced pharmaceutical manufacturing costs	• Raw material imports cost reduction • Manufacturing cost competitiveness index	• Federal Board of Revenue • Ministry of Commerce

Investment Summary

Year-wise Investment Summary *(PKR Billion)*

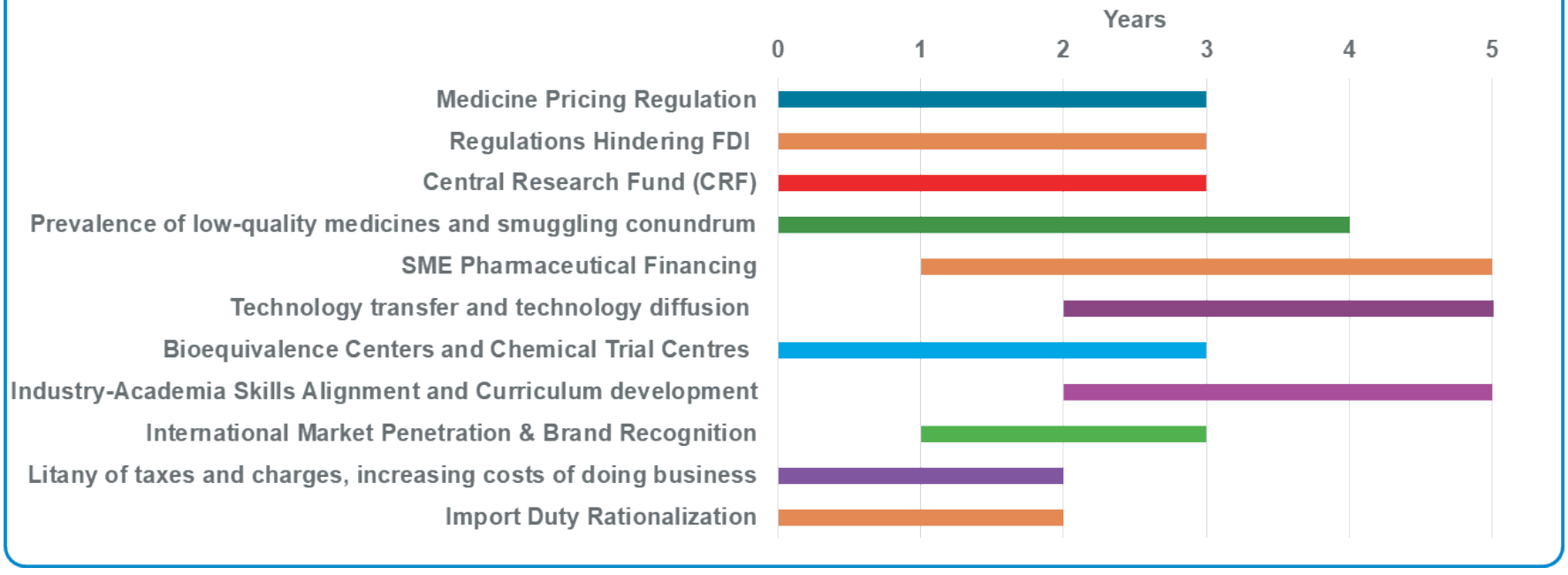
Category	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Policy & Regulatory Issues						**139.5**
1.3 International Standards Gap of infrastructure and re-evaluating Central Research Fund (CRF)	13.95	13.95	27.9	41.85	41.85	139.5
Access to finance						-
Technology Adoption						**100**
3.2 Dearth of Bioequivalence Centers and Chemical Trial Centers	10	15	25	25	25	100
Human Resource Issues						-
Market Access and Development						-
Tax Structure						-
Total	**23.95**	**28.95**	**52.9**	**66.85**	**66.85**	**239.5**

**Proposed interventions based investment estimates*

Investment Multiplier

The multiplier impact of investment in Pakistan differs by different studies. Majority of studies have been done in context of PSDP's impact since it tends to be the largest portion of investment on aggregate (there is little in terms of estimates of private investment multiplier). However, there is no unanimity in terms of the size of multiplier. Almost all studies put it below 1, between 0.5 and 1. We will use 0.6 as the multiplier of investment based on these studies. Therefore, the investment multiplier for this sector, Pharmaceutical and Biotechnology, is PKR 143.7 million.

Year-wise Interventions in Pharmaceutical & Biotechnology Sector



Conclusion

In conclusion, the Pakistani pharmaceutical sector possesses immense potential to transition from a generic-focused domestic market into a multi-billion-dollar export hub. Realizing this vision requires a decisive move away from rigid pricing and ad-hoc taxation toward a research-driven ecosystem backed by international quality standards and clinical trial capacity. By synchronizing regulatory modernization with fiscal incentives, Pakistan can ensure the sustainable availability of safe, high-quality medicines while positioning itself as a reliable regional competitor in the global healthcare supply chain.

PART B

HIGH POTENTIAL SECTORS

While Energy, Agriculture,Digital Economy, Textile, Pharmaceutical, and Housing & Construction are high-impact sectors with which an immediate impact is estimated in terms of proposed reforms and investment, several economic sectors exhibit significant potential to drive growth, generate employment, and enhance export earnings, yet they remain untapped due to structural, technological, or policy constraints. These sectors – ranging from Minerals to Gems & Jewelry – possess comparative advantages that could be leveraged to diversify the economy and reduce dependency on traditional revenue sources. Despite their latent capacity, limited investment, outdated infrastructure, regulatory bottlenecks, and gaps in skills and innovation have restricted their contribution to GDP. Recognizing and addressing these constraints is essential for unlocking their growth potential and ensuring that the economy benefits from a broader, more resilient industrial and service base.

ENGINEERING

Key Statistics

Current Performance (2025):

- **Engineering Exports:** Significant but concentrated in OEM production with limited value addition
- **Global Market Position:** Limited access to regulated high-value markets due to certification gaps
- **Workforce:** Over 70% informal with significant skill gaps
- **Technology Infrastructure:** Widespread use of outdated machinery affecting precision and quality
- **Import Dependency:** High reliance on imported intermediates (steel, copper, dies)
- **Industrial Cluster Efficiency:** 12-37% output losses due to power outages in key clusters

Pakistan's Position:

- **Export Structure:** Predominantly OEM-based with limited brand recognition
- **International Certifications:** Lack of ISO, CE, FDA certifications restricting market access
- **ESG Compliance:** Limited adoption of sustainable procurement standards
- **Digital Integration:** Poor market intelligence and limited SME digitization
- **Infrastructure:** Fragmented cluster infrastructure with energy and logistics challenges
- **Policy Environment:** Inconsistent export and tax policies affecting investor confidence

Global Position and Infrastructure:

- **International Certification Coverage:** Significantly below regional competitors
- **Technology Adoption Index:** Lagging in automation and precision manufacturing
- **ESG Compliance:** Limited access to green markets due to sustainability gaps
- **Export Competitiveness:** Constrained by quality issues and certification barriers

Infrastructure Gaps:

- **Industrial Clusters:** Inadequate shared R&D facilities and testing labs
- **Power Supply:** Frequent outages causing significant production losses
- **Raw Material Processing:** Limited local metallurgy and intermediate production
- **Digital Infrastructure:** Poor connectivity for B2B marketing and market intelligence
- **Quality Control:** Insufficient testing and compliance facilities

Strategic Importance

The engineering sector is central to industrial development, technological advancement, and export diversification, with strong linkages to manufacturing, metallurgy, logistics, and technology-intensive industries. However, its growth and global integration are constrained by structural and compliance-related challenges. Engineering exports remain concentrated in Original Equipment Manufacturer (OEM) production with limited domestic value addition, restricting the sector's ability to capture higher margins.

Pakistan's engineering sector also faces limited access to regulated global markets due to the absence of internationally recognized certifications such as ISO, CE, and FDA, which are essential for participation in global procurement systems and industrial supply chains. Low adoption of Environmental, Social, and Governance (ESG) standards further restricts entry into emerging "green markets," particularly in regions like the European Union and the Middle East, where sustainability compliance is increasingly mandatory.

Technological gaps – characterized by outdated machinery and limited automation, reduce production precision and product quality, weakening competitiveness in technology-intensive markets. At the same time, the sector employs a large but predominantly informal and under-skilled workforce, with over 70 percent lacking access to training, modern technologies, and social protection. Productivity is further affected by operational inefficiencies in key manufacturing clusters such as Gujranwala, Sialkot, and Gujrat, where frequent power outages lead to output losses of 12–37 percent[92]. Heavy reliance on imported intermediate inputs, including steel, copper, and specialized dies, also exposes production to exchange rate volatility and global commodity price fluctuations, constraining the development of integrated domestic supply chains and sustained export growth.

Key Challenges

- **Outdated Technology & Low Automation:** Reliance on obsolete machinery and manual processes leads to inefficiencies, higher wastage, and product defects, limiting productivity and quality.
- **Limited Digital Integration:** Low adoption of digital tools and B2B platforms – especially among SMEs, restricts access to market intelligence, export opportunities, and global supply chains.
- **Infrastructure & Cluster Gaps:** Inadequate R&D facilities, testing laboratories, logistics connectivity, and lack of shared industrial services constrain innovation and product standardization.
- **Policy & Regulatory Uncertainty:** Frequent changes in export policies, tax regimes, tariffs, and customs procedures create uncertainty, discouraging long-term investment and technology transfer.
- **Energy & Operational Inefficiencies:** Unreliable electricity supply and weak industrial infrastructure in key clusters increase production costs and reduce competitiveness.
- **Weak Industry–Academia Linkages:** Limited collaboration results in skill gaps, with engineering graduates lacking industry-relevant expertise and slowing R&D commercialization.

[92] *https://file.pide.org.pk/pdfpideresearch/wp-0075-the-cost-of-unserved-energy-evidence-from-selected-industrial-cities-of-Pakistan.pdf*

- **Certification & Compliance Barriers:** Absence of internationally accredited certification facilities increases reliance on foreign testing, raising costs and delaying exports.
- **Slow Technological Adoption:** Limited incentives for modernization, barriers to importing advanced machinery, and restrictions on emerging technologies (e.g., advanced manufacturing, 3D printing) hinder productivity gains.
- **High Cost of Inputs & Fiscal Constraints:** Duties on imported raw materials and machinery, along with fiscal instability, increase production costs and discourage higher value-added manufacturing.

Reform Proposals

Long Term

- **Long-Term Policy Stability:** Establish a consistent industrial policy framework with a 10-year horizon to reduce uncertainty and encourage sustained investment in advanced manufacturing and technology upgrading.
- **Institutional Coordination & Governance:** Strengthen coordination among key institutions – including the Engineering Development Board (EDB), Ministry of Science and Technology, and regulatory bodies – to streamline certification, standards compliance, and industrial modernization.
- **Industry–Academia Collaboration:** Develop joint research centers and structured partnership programs between universities and industry to promote innovation, technology transfer, and industry-relevant skill development.
- **Tariff & Taxation Reforms:** Rationalize tariffs and tax structures to incentivize localization of intermediate inputs (e.g., steel billets, castings), reduce import dependence, and strengthen domestic supply chains.

Short Term

- **Certification & Standards Compliance:** Facilitate immediate access to international certifications (ISO, CE, FDA) through subsidies, establishment of local testing laboratories, and targeted compliance incentives to enable entry into regulated global markets.
- **ESG & Sustainability Compliance:** Introduce support mechanisms for ESG certification to help firms meet sustainability requirements and access emerging green markets.
- **Technological Modernization & Digital Adoption:** Provide targeted incentives for the import and adoption of advanced machinery, automation, and digital tools to improve productivity, precision, and product quality across the sector.

Analytical Framework

The Engineering sector encompasses sub-sectors such as Lack of international certification (ISO, CE, FDA), High dependence on imported intermediates (steel, copper, dies), Poor market intelligence and SME digitization, Inconsistent export and tax policies (SROs, customs) all addressed within this unified framework.

#	Issues	Cost To Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action By
Policy & Regulatory Issues							
1.1	**Lack of international certification (ISO, CE, FDA)**	• Pakistan's engineering sector faces major export constraints due to the lack of international certifications such as CE, FDA, and ISO. This limits access to regulated and high-value markets, including public procurement and B2B tenders globally.[93]	• Certification subsidies; local testing & compliance labs; incentives for FDA/CE/UL/ISO registration • Adopt Lean Six Sigma and 360-degree operational principles across industries; obtain certifications, develop trained human resource and address industry-academia disconnect, adopt global standards and adhere to ESG requirements	$100M	• Global market access, higher demand of domestically manufactured engineering products, increased product sophistication with greater technology input, reduced order rejections	• Increase in number of certified exporters • New markets accessed • More sophisticated, innovative products	EDB, MoS&T

[93] *https://www.commerce.gov.pk/wp-content/uploads/2024/05/Engineering-Goods-sector-strategy-3_web-1.pdf*

#	Issues	Cost To Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action By
Policy & Regulatory Issues							
1.2	**Neglect of Environmental, Social and Governance (ESG) standards and product sustainability**	• Pakistan's limited awareness and adoption of sustainable procurement and ESG standards restricts its access to global green markets and international public tenders, especially in the EU and Middle East, where compliance with environmental and social governance is increasingly mandatory[94].	• ESG-certification support (RoHS, REACH, Energy Star); green design incentives	• Approximately $75M, which can be accessed through 'Green Funds' on easy terms offered by various donor platforms (IFC, ADB, etc.)	• Access to sustainable markets, ESG compliance	• Number of ESG-compliant firms, exports to green markets	EDB, EPA, PSQCA
1.3	**Policy inconsistency and red-tape deterring investment**	• Frequent policy changes and political uncertainty discourage long-term	• Establish 10-year industrial policy framework with built-in political consensus	No investment required	• Increased investor confidence, reduced policy reversals, stable business environment	• Number of policy reversals per year • Number of SROs issued	Ministry of Industries and Production (MoIP)

[94] *https://www.commerce.gov.pk/wp-content/uploads/2024/05/Engineering-Goods-sector-strategy-3_web-1.pdf*

#	Issues	Cost To Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action By
Policy & Regulatory Issues							
		capital deployment and FDI in Pakistan's engineering sector, limiting growth potential and technology transfer • $3 million in compliance costs per year for engineering firms[95]	mechanisms; create independent policy monitoring body		Significant reduction in compliance costs in terms of fulfilling Govt requirements ('sludge')	after enacting policy • Compliance costs of engineering firms • FDI growth, policy stability index	
1.4	**High dependence on imported intermediates (steel, copper, dies) and absence of local raw materials like naphthalene**	Import cost volatility – driven by exchange-rate fluctuations and global commodity price changes – has been shown to significantly increase production costs for Pakistan's manufacturing	• Localize key inputs via metallurgy R&D, SEZ-based raw material plants (steel billets, castings, naphthalene polymerization). Incorporate localization elements in all	Would mainly need a change in taxation and tariff structure to make it financially feasible to produce at home rather than import	• Higher proportion of manufacturing, including intermediate inputs, produced/manufactured within the country • Higher quality of manufactured goods resulting in higher exports and lower imports	• Local content percentage of final manufactured good or import substitution ratio • Acceptability of local produce at international level	MoIP, EDB, FBR, Ministry of Planning

[95] *Engineering Horizons: Unraveling the state of Industry in Pakistan' (2023), PIDE*

#	Issues	Cost To Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action By
Policy & Regulatory Issues							
		sector, including engineering - intensive goods	international agreements				
Technology Adoption							
2.1	**Outdated machinery and poor production precision**	• The efficiency levels and quality of machinery is poor. The Electrical Home Appliances Cluster Study in Gujranwala, for example, reports widespread issues of high wastage, quality defects, and limited competitiveness – primarily due to obsolete machinery, manual processes, and a lack of modern testing and	• Policies and incentives to make it easier to adopt latest technology like 3D printing, which is restricted in Pakistan • Enforcing quality standards upon manufacturing firms, with requirement of a certain level of efficiency in production	No investment required	• Improved quality and improved productivity, reduced wastage, competitive exports	• Rejection rate, machine-to-worker ratio, ISO compliance	MoIP, SMEDA, Provincial Industries Depts

#	Issues	Cost To Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action By
Technology Adoption							
		automation. These structural inefficiencies continue to undermine the sector's export potential.					
Human Resource Issues							
3.1	**Low-skilled, informal, and aging workforce**	• Major portion of engineering workforce is low-skilled, especially the one in the informal sector, with low levels of protection and little chance of upgrading their skills	• Outreach from already established platforms like NAVTTC & TEVTAs for free upgradation of skills • Set minimum standards for the industry to employ individuals, with skill upgradation being a part of	No investment required	• Number of workers in engineering industry getting upskilled • Number of firms training their employees • Skilled, inclusive and export-compliant labor force	• Number of trained workers with high-quality skills with good global acceptability levels	NAVTTC, TEVTA, MoIP

#	Issues	Cost To Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action By
Human Resource Issues							
			these regulations				
3.2	**Industry-academia disconnect and lack of applied R&D**	• Weak linkages between universities and industry result in graduates lacking practical skills and limited technology transfer, hindering innovation and productivity growth.	• Establish industry-academia partnerships program; create collaborative R&D centers with 5-10 year planning horizons; mandatory industry internships in engineering curricula	No investment required	• Industry-ready graduates, technology commercialization, innovation ecosystem development	• Number of industry partnerships, patents commercialized, graduate employability rate	HEC, MoIP, EDB, Provincial HED
Market Access and Development							
4.1	**Non-productivity and service issues of Engineering clusters**	• Frequent power outages in industrial clusters like Gujranwala, Sialkot, and Gujrat have led	• Upgrade engineering clusters with shared R&D labs, uninterrupted	• 5-10 Rupees (PSDP + ADPs + CPEC zones) for facility upgradation. This amount can be easily	• Lower cost/unit, better cluster output, FDI inflows; better output of PSDP funded	• Cluster productivity index, better value for money in terms of PSDP investments;	Planning Commission, MoIP, Provinces

#	Issues	Cost To Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action By
Market Access and Development							
		to 12–37% industrial output losses and significant increases in production costs[96] • Lack of services necessary for higher quality, value added production that could help Pakistan break into tightly regulated, technology driven markets and establish presence in global value chains	power, logistics hubs • Increased connectivity with organizations like PACRA for better access to credit	funded through the remaining, unspent stock of allocated PSDP investments for Engineering sector	engineering projects	utilization percentage of available resources	

[96] *https://file.pide.org.pk/pdfpideresearch/wp-0075-the-cost-of-unserved-energy-evidence-from-selected-industrial-cities-of-Pakistan.pdf*

#	Issues	Cost To Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action By
Tax Structure							
5.1	**Inconsistent export and tax policies (SROs, customs)**	• Frequent and unpredictable changes in Pakistan's economic policies—especially tariffs, taxes, and regulatory frameworks—have deterred foreign direct investment and disrupted export orders, with studies showing a strong negative link between policy uncertainty and FDI inflows.[97]	• 5-year predictable engineering export regime; harmonized customs/tax relief	• Relaxation in terms of SBP imposed restriction/cap on import of machinery under its machine import scheme • Reduced duties on imported raw material, especially on products with potential for value addition	• Certainty and continuity of tax policy • Increased Investor confidence • Lesser SROs • A tariff structure that makes it easy to access inputs for high-quality, value-added production	• Reduction in number of policy reversals • The ratio of imported inputs that go into producing high-quality, value-added goods that are exported	Finance Division, MoIP, FBR, EDB

[97] *https://www.state.gov/reports/2024-investment-climate-statements/pakistan/*

Investment Summary

The total stock of PSDP investment earmarked for Engineering sector since 2019-20 is 33 billion, 378 million, of which only Rs. 10.4 billion has been spent, leaving Rs. 23.3 billion yet to be spent . Any program/initiative stated above needing public sector investment can be sourced from the stock of earmarked investment in PSDP. Moreover, the average take-up of credit for this sector in the last 5 years is around Rs. 57 billion, a number that not only gives an idea of the poor uptake in this sector but also a number that would be need to be kept in perspective so as to not let it fall below that.

Year-wise Investment Summary *(PKR Billion)*

Category	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Policy & Regulatory Issues						**49**
1.1 Lack of international certification (ISO, CE, FDA)	5.6	5.6	5.6	5.6	5.6	28
1.2 Neglect of Environmental, Social and Governance (ESG) standards and product sustainability	4.2	4.2	4.2	4.2	4.2	21
Access to Finance						**-**
Technology Adoption						**-**
Human Resource Issues						**-**
Market Access & Development						**10**
4.1 Non-productivity and service issues of Engineering clusters	1	2	3	2	2	10
Tax Structure						**-**
Total	**10.8**	**11.8**	**12.8**	**11.8**	**11.8**	**59**

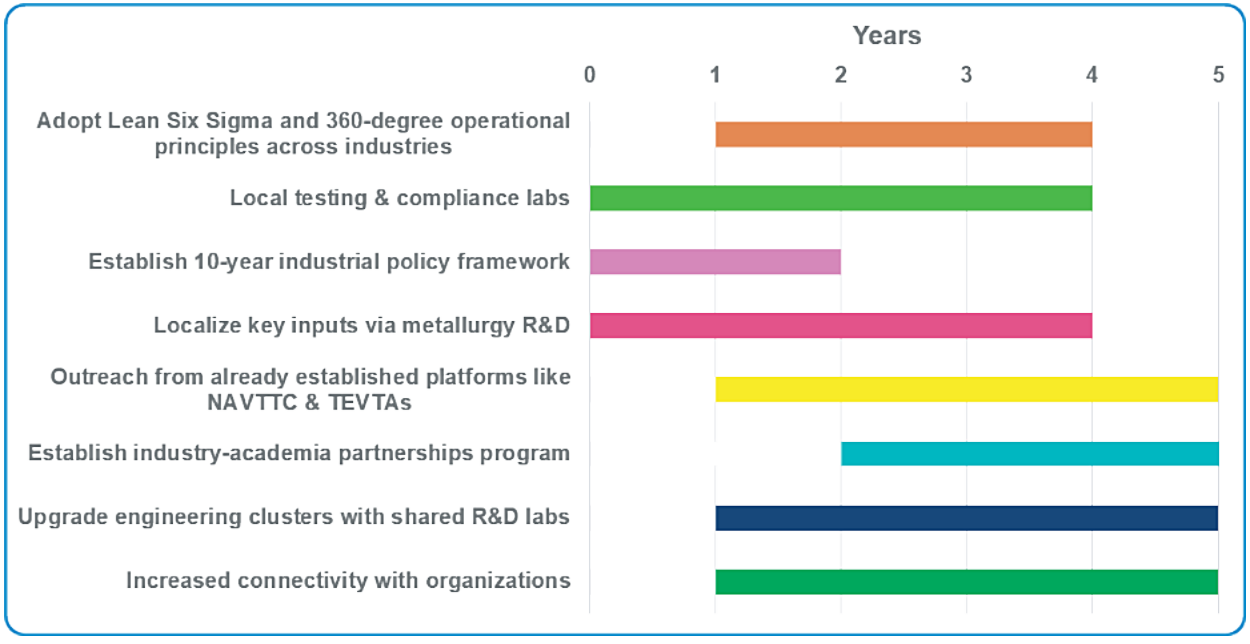
**Proposed interventions based investment estimates*

Investment Multiplier

Multiplier impact of investment in Pakistan differs by different studies. Majority of studies have been done in context of PSDPs impact since it tends to be the largest portion of investment on aggregate (there is little in terms of estimates of private investment multiplier). However, there is no unanimity in terms of the size of multiplier. Almost all studies put it below 1, b/w 0.5 and 1. We will use 0.6 as the multiplier of investment based on these studies.

The investment multiplier for this sector, Engineering is PKR 35.4Billion.

Year-wise Interventions in Engineering Sector



Conclusion

Pakistan's engineering sector holds strong potential as a driver of industrial upgrading and export diversification, yet remains constrained by structural inefficiencies that limit its global competitiveness. Outdated machinery, limited automation, absent international certifications, and heavy reliance on imported intermediate inputs collectively suppress productivity and restrict access to regulated global markets.

The challenges are compounded by policy instability, weak industry–academia linkages, and energy unreliability in key manufacturing clusters – factors that discourage long-term investment and technology transfer precisely when the sector needs both.

The reform agenda is clear and sequenced: near-term priorities around certification access, ESG compliance, and technology modernization can open immediate market opportunities, while longer-term investments in policy stability, institutional coordination, and domestic supply chain development build the foundation for sustained export growth. With the right interventions, Pakistan's engineering sector can transition from OEM-dependent, low-margin production toward higher value-added, globally integrated manufacturing.

MINERALS & MINING

Key Statistics

Current Performance :

- **Mineral Exports:** $1.5-2 billion (2024) - significantly below potential given vast reserves
- **Strategic Reserves Value:** $6-8 trillion remain underexplored and underutilized
- **Market Size:** Mining contributes 2.4% to GDP, employing 0.5% of labor force
- **Post-Extraction Value Loss:** 60-70% due to limited downstream processing capacity
- **Oil Import Bill:** $17.5 billion annually despite domestic reserves
- **Processing Capacity:** Less than 15% of extracted minerals processed locally

Global Context & Rankings:

- **Export Comparison:** Chile's copper exports $38B vs Pakistan's $150M annually
- **GDP contribution:** Mining 12% of GDP and 26% of exports in Kazakhstan
- **Global Market Share:** <0.5% in global mineral exports despite massive reserves
- **FDI in Mining:** <$200M annually vs regional peers receiving $2-5B
- **Regional Position:** Lagging behind UAE, Chile, and Australia in mining productivity
- **International Certifications:** Minimal ESG-compliant mining operations

Infrastructure & Mining System:

- **Transportation Costs:** 2-3x higher than international benchmarks due to poor connectivity
- **Power Supply:** Unreliable electricity in mineral-rich regions affecting operations
- **Storage Capacity:** Inadequate strategic mineral storage facilities
- **Processing Infrastructure:** Fragmented, mostly export-oriented raw material extraction
- **Safety Standards:** 100+ mining fatalities annually, well above global averages

Innovation & Research Infrastructure:

- **R&D Investment:** Minimal in mining technology and geological innovation
- **University Programs:** Limited mining engineering and geological programs
- **Technology Adoption:** 20-30year old equipment reducing productivity by 2-3x
- **Patent Filings:** Extremely low in mining technology and processing innovations
- **Environmental Compliance:** Limited adoption of green mining technologies

Strategic Importance

The Minerals and Mining sector contributes 2.8% to GDP and employs 0.7% of the labor force, yet represents one of Pakistan's most underutilized economic assets. Pakistan's strategic mineral reserves are valued at $6–8 trillion, while annual mineral exports stand at just $2.1 billion, a fraction of the sector's potential. The contrast with comparable resource-rich economies is stark: Chile earns $38 billion annually from copper exports alone against Pakistan's $150 million. Pakistan captures less than 0.5% of global mineral exports despite vast reserves and attracts under $200 million in annual mining FDI compared to $2–5 billion received by regional peers.

The sector's underperformance directly strains Pakistan's macroeconomic position. An annual oil import bill of $17.5 billion persists despite domestic reserves, and 60–70% of post-extraction value is lost due to limited downstream processing — with less than 15% of extracted minerals processed locally. Addressing these gaps through exploration expansion, value chain development, and regulatory reform can generate substantial foreign exchange savings, attract large-scale FDI, and stimulate employment across resource-rich regions that currently remain economically marginalized.

Key Challenges

- **Under exploration:** Only 35% of Pakistan's landmass has been geologically surveyed, driven by funding shortfalls, federal-provincial jurisdictional disputes, security constraints, and inadequate technology.
- **Absent Refining Infrastructure:** No high-quality domestic mineral assay and refining labs exist, forcing samples abroad. Underreporting is endemic, Saindak project alone caused a documented loss of Rs. 27.4 billion through unauthorized changes to sampling methods.
- **Regulatory Fragmentation:** Overlapping federal-provincial jurisdictions, opaque contracts, and a weak regulatory framework deter long-term investment and expose Pakistan to costly international arbitration.
- **Weak IP and Data Access:** No centralized geological data repository (cadaster) and inadequate IP protections prevent investors from conducting due diligence, suppressing both domestic and foreign capital.
- **Outdated Technology:** Equipment 20–30 years old reduces productivity by 2–3x and contributes to an estimated 50–70% loss in mineral recovery in sectors such as marble and precious stones.
- **Logistics Deficit:** Transportation costs are 2–3x international benchmarks due to poor connectivity to mineral-rich regions, directly inflating operating costs.
- **Tax Burden:** An effective tax rate of 15–20% on mining operations discourages investment and incentivizes informality.

Reform Proposals

Long Term

- **Accelerate geological exploration:** Only 35% of Pakistan's landmass surveyed to date, target 50% in 5 years via increased PSDP funding and private/foreign JVs, which halve the public cost.
- **Establish centralized mineral refining lab** (est. **$30M**, privately fundable via ownership incentives) to eliminate underreporting and establish true reserve values domestically.
- **Dedicated mining finance facility** (akin to PIDC) to address the structural problem of banks refusing to finance long-payback mineral ventures due to unclear property rights.

Short Term

- **Rationalize the 15–20% effective tax rate** on mining operations to incentivize formalization and attract long-term investment, no fiscal cost if structured as exploration-phase incentives.
- **Unified regulatory framework:** Blockchain-based transparent auctions, single-window clearance, and binding federal-provincial dispute resolution
- **Technology upgrade:** Ban primitive blasting techniques, facilitate modern equipment imports, and pursue G-to-G technology transfer agreements.

Analytical Framework

The minerals and mining sector encompasses sub-sectors such as exploration, extraction, processing, refining, logistics, and export facilitation, all addressed within this unified framework.

#	Issues	Cause	Cost to Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action By
Policy & Regulatory Issues								
1.1	**Absence of Geologically Surveyed Data, Pre-Competitive Data and No Mandatory Exploration Data Submission**	• Hardly 35% of Pakistan's landmass geologically explored till date, mainly due to fund paucity, lack of political will, security issues, absence of top-quality technology and disputes over jurisdiction and prospective division of benefits • Absence of National mining cadaster	• Forgone GDP growth • When ELs lapse, all surveyed data is retained privately • Loss of precious foreign exchange due to imports despite the same source being domestically available (like coal) • Forgone development in resource-containing areas and loss of per capita income due to non-utilization of resource	• Increased fund availability via federal PSDP for exploration activities • Infusion of quality technology for exploration • Establish a National mining cadaster and a data portal • Digitization of legacy mining and geological efforts • Exploration data submission should be made mandatory	• Required investment varies, depending upon mode of exploration, i.e., whether it is done solely by the public sector, or through a JV with domestic or private exploration companies. In the latter case, the expense level will be half compared to former	• Increased pace of geological exploration • Infusion and application of advanced technology	• Increased geological area covered through survey/exploration, preferably 50 percent in 5 years	• Geological Survey of Pakistan • Ministry of Planning

#	Issues	Cause	Cost to Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action By
Policy & Regulatory Issues								
1.2	**Absence of quality infrastructure leading to financial losses and waste**	• In terms of Mining, one of the main pre-requisites is the need for mineral processing plants that are needed to identify and separate various mineral in explored minerals. In absence of such a facility, either the sample has to be sent outside for refining (incurring expense) and leads to under-reporting of	• Pakistan's economy suffers significant damages/losses due to absence of quality refining infrastructure. Samples have to be imported to determine their content, and underreporting is common. For example, the underreporting of Saindak samples caused a loss of Rs. 27.4 billion to the economy.[98] Similarly, NAB recently	• Immediately setup a central, top quality refining labs/infrastructure which can determine true content of minerals in a sample, thus leading to estimation of true value of a mineral and its mine.	• Top quality setup requires an estimate $30 million, which can be borne by private mining company if given the right incentive (like ownership rights)[99]	• Mineral samples and their content reported through a top-quality, centralized lab and significant lessening of chance of under-reporting	• How many mineral samples get analyzed in domestic refineries compared to ones sent to other countries • Number of domestic and foreign investors seeking the analysis results	• Ministry of Planning • Geological Survey of Pakistan

[98] *Unauthorized change of sampling method of Saindak project caused Rs. 27.4 billion loss', The Nation, 26th August 2025*
[99] *Source: Dr. Nisar Khan, Professor of Geology and former director at Saindak mines, Baluchistan*

#	Issues	Cause	Cost to Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action By
Policy & Regulatory Issues								
		valuable minerals, causing a loss to exchequer and the country. Pakistan lacks such plants of high quality	reported corrupt practices causing s in losses to the exchequer in KP Gold block auctions whereby gold content was underreported[100]					
1.3	**Opaque Contracts, Fragmented Mining Laws, Jurisdictional Disputes & Regulatory Framework**	• Multiple agencies with overlapping jurisdictions, disputes between federal and provincial government over jurisdiction and rights, overall weak regulatory framework	• Fines due to international arbitration, reluctance of international firms to set shop for long-term exploration, non-clarity of land rights and jurisdictions deterring probable investments	• Blockchain-based transparent auction system, a unified regulatory framework applicable upon federal and provincial governments, single window clearance and domestic	• No investment required	• Clarity of jurisdiction, unified framework acceptable to provincial and federal government, reduction in contract disputes and faster approvals	• Transparent auction rate, approval time reduction, dispute frequency	• Federal and provincial governments, Mining departments at provincial level, Law Ministry at federal and provincial level

[100] *'NAB exposes corruption in KP gold block auction, trillions lost', Khyber News, 25th August 2025 https://khybernews.tv/nab-exposes-corruption-in-kp-gold-blocks-auction-trillions-lost/*

#	Issues	Cause	Cost to Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action By
Policy & Regulatory Issues								
		creating compliance confusion		arbitration of disputes within a stipulated timeframe				
1.4	**Limited Intellectual Property Protection and valuation issues**	• Weak IP framework for mining technology and geological data; absence of a centralized database ('cadaster' containing relevant data) for perusal by investors	• Investors unwilling to invest due to lack of required information and non-access to required data for verification/analysis purposes	• Enhanced IP protection in terms of minerals, fast-track patent system, availability of required information, especially geological data, in a single repository	• No investment required	• Significant increase in domestic and foreign investment in mining sector and increase in IP protection	• Rate and quantum of investment in minerals	• IPR Office, Ministry of Science & Technology
Access to Finance								
2.1	**Structure of capital and pay-back period**	• Mineral exploration ventures usually require large capital outlays, which banks are reluctant to finance for	• Potential loss of mining activity, new exploration and revenue	• Dedicated financing facility for mining development, like PIDC or some arrangement with local	• Undetermined, but expected to pick up with ease of credit availability	• Significant increase in private sector credit uptake for investing in Mines and mineral exploration	• Exploration investment volume, active projects, FDI in mining	• State Bank, Development finance institutions, commercial and non-banking finance institutions

#	Issues	Cause	Cost to Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action By
Access to Finance								
		several reasons (like absence of clear property rights). Plus, structure of long payback deter investment		banks to make it easier to explore				
Technology Adaption								
3.1	**Outdated Mining Technology & Equipment**	• 20-30 year old machinery reducing productivity by 2-3x • Lack of modern equipment such as seismographs, remote sensing labs, geochemical analytical tools along with shortage of technical caders (drillers, assayers, sample preparation technicians)	• An estimated 50-70 percent loss in mineral exploration, like Marble and precious stones, lack of environment friendly mining • Survey samples are contaminated and mishandled impacting analytical value	• Technology upgrading incentives, technology infusion through G-to G agreements, modern equipment import facilitation, ban on primitive blasting techniques	• None	• Significant decrease in mineral waste	• Equipment adoption rate, productivity improvement, higher amounts of useful minerals extracted from samples	• Ministry of Science & Technology, Mining companies, SBP, provincial mining departments

#	Issues	Cause	Cost to Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action By
Human Resource Issues								
4.1	**Critical Skills Gap in Mining Technology**	• Limited technical expertise in modern mining and processing • Shortage of qualified Geologists, Geophysicists, mining Engineers: < 2,000 active Geologists for 881,000 km/sq	• Loss of precious minerals as a significant portion is wasted in exploration, cleaning and processing • Unable to interpret our own data creating dependence on expensive foreign consultants	• Use existing technical education setup at the federal level to fill this gap. Upgrade the syllabus and training methodologies with the help of industrialized nation and the grants they regularly offer	• Minimal or no investment required	• Requirement of professionals in mining industry met easily	• Upgraded syllabus • Coordination with other countries for imparting advanced skills • International recognition of syllabus	• Technical Education Authorities, Ministry of Industry, Ministry of Planning
4.2	**Limited Academia-Industry Collaboration**	• Weak linkages between mining programs and industry needs	• Lack of talented skill force	• Industry-driven curriculum, collaborative research programs	• None	• Active university-industry partnerships in mining, especially geological departments at universities	• Joint research projects, industry-funded research, graduate employment	• Higher Education Commission, Ministry of Planning

#	Issues	Cause	Cost to Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action By
Market Access & Development								
5.1	**Weak Value Chain Integration & Processing**	• Limited downstream processing resulting in raw material exports	• Lost value addition opportunities	• Integrated mineral processing hubs, value chain linkage programs	• None	• Yearly increase in processed mineral exports and value addition	• Processing capacity utilization, value-added exports percentage	• Ministry of Industries, Commerce Ministry
5.2	**Poor Transportation & Logistics Infrastructure**	• 2-3x higher transportation costs due to inadequate connectivity	• Increased logistics costs	• Mining corridor development, strategic storage, integrated logistics	• PKR 2.5T[101], at least	• 50% reduction in transportation costs and improved connectivity	• Transportation cost reduction, connectivity index improvement	• Ministry of Communications, Railways, CPEC
Tax Structure								
6.1	**High Tax Burden on Mining Operations**	• 15-20% effective tax rate discouraging investment and formalization	• Reduced formal sector participation	• Rationalized mining tax structure, exploration phase tax incentives	• None	• Lesser taxes paid as percentage of regular operations in mining sector	• Taxes paid as a percentage of cash flows and as percentage of profits-after-tax	• Federal Board of Revenue, Ministry of Finance

[101] *Based on estimates of making mines accessible through roads, and other infrastructure like Railway's ML-I dual track project*

Investment Summary

The total stock of PSDP investment earmarked for Minerals and Mining sector since 2023 is 1 billion, 793 million, of which only Rs. 811 million has been spent, leaving Rs. 982 million yet to be spent (with a further proposition of Rs. 768 million) . These are allotted for two major programs that are focused on geological surveys and mapping of minerals. Any program/initiative stated above needing public sector investment can be sourced from the stock of earmarked investment in PSDP. Moreover, the average take-up of credit for this sector in the last 5 years is around Rs. 73 billion, a number that would be need to be kept in perspective so as to not let it fall below that

Year-wise Investment Summary *(PKR Billion)*

Category	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Policy & Regulatory Issues						**8.4**
1.2 Absence of quality infrastructure leading to financial losses and waste	1.4	2.8	1.4	1.4	1.4	8.4
Access to Finance						**-**
Technology Adaption						**-**
Human Resource Issues						**-**
Market Access & Development						**2,500**
5.2 Poor Transportation & Logistics Infrastructure	300	350	700	650	500	2500
Tax Structure						**-**
Total	**301.4**	**352.8**	**701.4**	**651.4**	**501.4**	**2,508.4**

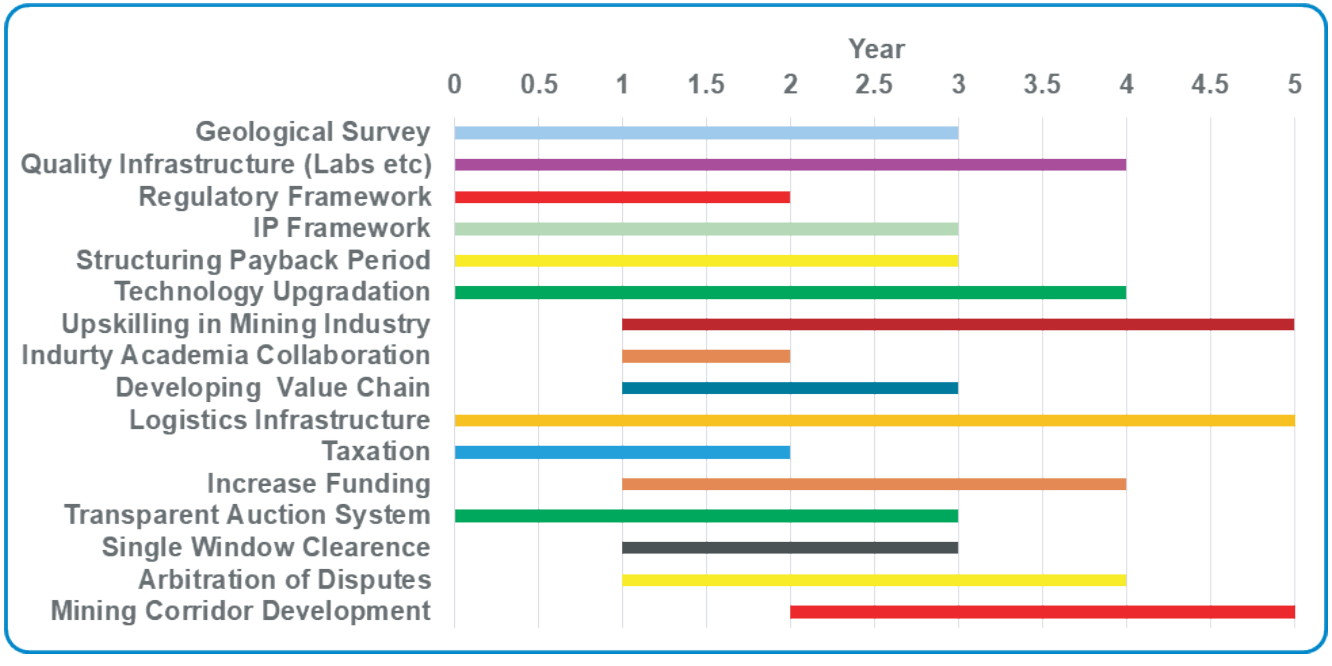
**Proposed interventions based investment estimates*

Investment Multiplier

The multiplier impact of investment in Pakistan varies across studies. Most research has focused on the Public Sector Development Programme (PSDP), as it constitutes the largest share of aggregate investment; there is limited evidence on private investment multipliers. However, there is no consensus on the precise size of the multiplier. Nearly all studies estimate it to be below 1, typically ranging between 0.5 and 1. For this analysis, we adopt a multiplier of 0.6, consistent with the prevailing findings in the literature.

The required investment is PKR 2508.4 billion, which—when multiplied by the investment multiplier of 0.6—yields an impact of PKR 1505 billion.

Year-wise Interventions in Minerals & Mining Sector



Conclusion

Pakistan's minerals and mining sector is among the most underleveraged in the world relative to its resource endowment. The barriers are institutional and infrastructural, not geological. The short-term reforms proposed — tax rationalization, regulatory consolidation, and technology modernization — are designed to yield immediate gains in investor confidence and formalization, while the longer-term interventions in exploration, refining infrastructure, and logistics lay the foundation for sustained, structural growth. Coordinated action across both horizons can transform a $2.1 billion export sector into a cornerstone of Pakistan's broader economic growth.

LOGISTICS

Key Statistics

Current Performance (FY25):

- **Logistics Split by mode:** 94% freight moved via road transport vs optimal 60-70% globally
- **Rail Network Utilization:** <5% of freight capacity utilized despite having 11,881 km network
- **Truck Fleet:** >85% trucks outdated and inefficient; fuel = 60% of operational cost
- **Digital Adoption:** 97% gap in optimization and digital technology adoption

Global Context & Rankings:

- **Logistics Cost to GDP:** 12-15% of GDP (~$40-50B annually) - significantly above global average of 8-10%
- **Transit Trade Potential:** Only $400-500M annually vs potential $15B+ in regional trade
- **Export Rejections:** 104 EU rice consignments blocked in 2024 (similar quality issues affect logistics)
- **Regional Connectivity:** Limited TIR system usage restricting Central Asia trade
- **Port Efficiency:** 3-5 days dwell time vs global best practices
- **Border Processing:** Significant delays at key crossings (Chaman, Torkham, Gwadar)

Infrastructure & Logistics Systems:

- **Road Network:** 264,000 km roads carrying 94% of freight leading to severe congestion
- **Rail Freight:** Only 6% modal share vs potential 20-25% for cost efficiency
- **Port Capacity:** Karachi & Port Qasim operating at 95%+ capacity with expansion delays; Gwadar Port significantly underutilized
- **Cold Storage:** Severely inadequate - 40%+ perishables lost annually worth >$4B
- **Intermodal Connectivity:** Minimal integration between road, rail, and sea transport

Innovation & Technology Infrastructure:

- **Digital Systems:** <3% freight operations use digital tracking and documentation
- **Automation Level:** Minimal use of IoT, AI, or automated systems in logistics
- **R&D Investment:** <0.1% of sector revenue invested in logistics technology innovation

Strategic Importance

The logistics sector is a critical driver of economic productivity, trade facilitation, and regional integration, all feeding into aggregate GDP growth. It encompasses freight transport, warehousing, port operations, customs facilitation, and supply chain services. Logistics performance directly affects export competitiveness, domestic market efficiency, and integration into regional trade corridors. Given Pakistan's location between South Asia, Central Asia, and the Middle East, an efficient logistics system is essential for supporting industrial production, agriculture supply chains, e-commerce growth, and expanding regional transit trade, which has the potential to exceed $15 billion annually, compared to the current $400–500 million.

Key Challenges

- **High Logistics Costs:** Logistics costs account for 12–15% of GDP, significantly above the global average of 8–10%, undermining competitiveness across all export sectors.
- **Road Dependency & Freight Imbalance:** Freight movement is heavily road-dependent (94%) despite a congested and inefficient 264,000 km network; the 11,881 km rail network carries less than 5% of freight against a potential of 20–25%.
- **Cold Chain Gaps:** Inadequate cold chain infrastructure results in over 40% annual loss of perishable goods, causing losses exceeding $4 billion and weakening agricultural exports and food security.
- **Underutilized Transit Trade Potential:** Limited use of the TIR system, weak border infrastructure, and delays at Chaman, Torkham, and Gwadar constrain regional cargo flows despite Pakistan's strategic location linking Central Asia, South Asia, and the Middle East.
- **Port Capacity Constraints:** Karachi and Port Qasim operate at over 95% capacity while Gwadar remains significantly underutilized; port dwell times of 3–5 days exceed international best practices.
- **Low Digital Adoption:** A 97% gap in logistics technology use persists, with less than 3% of freight operations using digital documentation or tracking, and R&D investment below 0.1% of sector revenue.
- **Climate Vulnerability:** Logistics infrastructure sustains over $3.8 billion in climate-related damages annually, posing a structural risk to supply chain resilience.
- **Fragmented Governance:** No unified national logistics framework exists; regulatory inconsistencies across federal and provincial jurisdictions, coupled with inconsistent enforcement of axle load and vehicle safety regulations, create barriers to efficient freight movement.
- **Informality & Limited Finance Access:** Over 85% of logistics operators function informally, restricting access to credit, insurance, and fleet financing, and preventing investment in modernization and cold chain systems.
- **Human Capital Deficit:** Only 5% of the workforce is formally trained, female participation remains below 2%, and weak industry–academia linkages limit innovation and technology commercialization in the sector.

Reform Proposals

Long Term

- **National Logistics Council:** Establish a National Logistics Council to coordinate policy across federal and provincial governments, develop a unified freight strategy, and resolve regulatory inconsistencies through a single institutional mandate.
- **Regulatory Harmonization:** Standardize interprovincial transport permits, enforce consistent vehicle safety regulations, and fully implement the national axle load policy to eliminate barriers to freight movement and reduce road damage.
- **Institutional Coordination:** Strengthen coordination among ministries responsible for commerce, transport, planning, and digital infrastructure, and expand public-private partnerships in cold storage infrastructure, rail freight modernization, and port expansion.
- **Rail & Port Infrastructure Development:** Invest in rail freight modernization to increase its share from under 5% toward the achievable 20–25% threshold, and expand port capacity at Karachi, Port Qasim, and Gwadar to reduce dwell times and congestion.
- **Regional Transit Integration:** Activate the TIR system and digitize customs procedures to facilitate cross-border trade and strengthen Pakistan's role as a transit corridor linking Central Asia, South Asia, and the Middle East.
- **Industry–Academia Linkages:** Build structured collaboration between universities and the logistics sector to promote research, innovation, and technology commercialization, and address the chronic human capital deficit in the sector.

Short Term

- **Digital Governance & Documentation:** Mandate electronic Bills of Lading (E-BOL), develop digital freight exchange platforms, and implement integrated supply chain visibility systems to reduce documentation delays and improve operational transparency.
- **Tax Rationalization for SMEs:** Simplify tax compliance procedures and introduce a rationalized tax framework for logistics SMEs, with zero-rated tax treatment for export logistics services to enhance price competitiveness.
- **Access to Finance:** Launch credit guarantee schemes, specialized fleet leasing programs, and warehouse receipt financing mechanisms to enable logistics SMEs to modernize fleets and invest in cold chain and digital infrastructure.
- **Cold Chain Investment:** Prioritize immediate investment in cold storage infrastructure to address the over 40% annual loss of perishable goods and arrest the $4 billion in associated economic losses.
- **Border Efficiency Improvements:** Streamline border processing at Chaman, Torkham, and Gwadar through digitized clearance systems and infrastructure upgrades to reduce port dwell times toward international benchmarks.
- **Workforce Development:** Expand formal training programs for logistics workers, with targeted initiatives to increase female participation beyond the current 2% threshold and align curricula with industry skill requirements.

Analytical Framework

The logistics sector encompasses sub-sectors such as freight transport, warehousing, port operations, customs facilitation, supply chain management, and digital logistics, all addressed within this unified framework.

#	Issues	Sub-issues	Cause	Cost to Economy	Reform Proposal	Investment Cost	Expected Outcome	Measurable KPIs	Action By
Policy & Regulatory Issues									
1.1	**Fragmented Logistics Regulation & Lack of National Coordination**	• National Logistics Council establishment • Provincial permit harmonization TIR system implementation	• Institutional gaps • inconsistent provincial permits • limited international transit agreements	• Pakistan missing $15B+ in potential regional transit trade[102]	• National Logistics Council for harmonized policy • Harmonize interprovincial transport permits • Activate TIR system; digitize customs clearance	• PKR 28B (Regulatory Integration)	• Unified Freight Policy • Seamless regional movement • Enhanced regional trade	• Provinces integrated • Border clearance time • TIR freight volume/value	• MoC, Planning, Provincial Govts, Pakistan Customs
1.2	**Inconsistent Transport Standards & Safety Regulations**	• Truck weight enforcement systems • Axle load policy implementation • Fleet fitness and insurance standards	• Weak enforcement, lack of standardized regulations, outdated compliance systems	• 4.5% of GDP loss (~$12.5B/year) from road crashes & overloading[103]	• Truck weight enforcement technology • Implement national axle load policy • Mandatory e-fitness & insurance standards	• PKR 560B (Standards Implementation)	• Safer, more efficient freight system	• Axle load compliance rate • Accident rate reduction • Fleet compliance rate	• NHA, Excise Dept, MoT, SECP

[102] *https://profit.pakistantoday.com.pk/2025/07/03/pakistan-oman-push-for-stronger-maritime-ties-direct-gwadar-ferry-service*
[103] *https://www.dawn.com/news/1833744#*

#	Issues	Sub-issues	Cause	Cost to Economy	Reform Proposal	Investment Cost	Expected Outcome	Measurable KPIs	Action By
Policy & Regulatory Issues									
1.3	**Weak Digital Governance in Logistics**	• E-BOL mandate implementation • Digital freight exchanges • Supply chain visibility systems	Manual processes, 97% gap in digital adoption, lack of integrated systems	• Slow, inefficient documentation and tracking processes	• Mandatory E-BOL for freight • Digital freight exchange platforms • Integrated supply chain visibility	• PKR 84B (Digital Governance)	• Transparent, efficient freight operations	• E-BOL compliance rate • Platform usage rate • % cargo digitally tracked	• FBR, MoIT, PIFFA
1.4	**Limited Environmental & Climate Regulations**	• Green freight program implementation • Climate-resilient infrastructure policies • Emission standards for freight vehicles	>85% trucks outdated and diesel-based, inadequate climate adaptation policies	• ~$3-4B/year in GHG and climate-related damages[104]	• Green Freight Program with EV cargo pilots • Climate resilient road design standards • Mandatory emission standards for freight fleet	• PKR 420B (Environmental Compliance)	• Lower emissions, climate-resilient logistics	• % electric/hybrid freight fleet • CO_2 reduction/ton-km • Climate-resilient infrastructure %	• MoCC, NEECA, NDMA

[104] *https://unctad.org/system/files/information-document/unda2030d03-pakistan-transport_en.pdf*

#	Issues	Sub-issues	Cause	Cost to Economy	Reform Proposal	Investment Cost	Expected Outcome	Measurable KPIs	Action By
Access to Finance									
2.1	**Limited Formal Finance Access for Logistics SMEs**	• Credit guarantee schemes • Fleet leasing and financing • Warehouse financing schemes	• >85% operators informal, limiting access to credit, insurance, modern fleet upgrades	• Restricted growth, inefficient operations, limited modernization	• Credit guarantees for logistics SMEs • Specialized fleet leasing programs • Warehouse receipt financing	• PKR 140B (SME Finance)	• Higher private sector investment and capacity	• Loan disbursement to logistics sector • SME access ratio • Fleet modernization rate	• SBP, SECP, DFIs, Banks
2.2	**Inadequate Cold Chain Infrastructure Investment**	• National cold chain infrastructure • PPP warehouse development • Temperature-controlled transport financing	• Limited private sector investment due to high costs, inadequate storage facilities	• Rs 400-500B annual post-harvest losses from inadequate cold storage[105]	• Cold chain investment incentives and subsidies • Public-private partnerships for cold storage • Temperature-controlled transport financing	• PKR 420B (Cold Chain Investment)	• 60% reduction in post-harvest losses	• Cold storage capacity (MT) • Private investment in cold chain • Loss reduction percentage	• BOI, Private logistics companies, DFIs
2.3	**Limited Infrastructure Development Financing**	• Port modernization financing • Rail freight network	• Poor infrastructure financing mechanisms, limited PPP	• 12-15% of GDP logistics costs due to infrastructure frameworks	• Infrastructure development bonds • PPP framework for logistics	• PKR 1.12T (Infrastructure Finance)	• Modern, efficient logistics infrastructure	• Infrastructure projects completed • Private sector participation	• Ministry of Planning, BOI, Development Banks

[105] *https://par.com.pk/blogs-details/*

#	Issues	Sub-issues	Cause	Cost to Economy	Reform Proposal	Investment Cost	Expected Outcome	Measurable KPIs	Action By
Access to Finance									
		rehabilitation • Intermodal hub development		inefficiencies	• International development financing partnerships			• Modal shift improvement	
Technology Adaption									
3.1	**Limited Adoption of Modern Logistics Technology**	• Fleet management system implementation • Warehouse automation • IoTt - enabled supply chain monitoring	• Low automation • Outdated equipment • Limited technology awareness	• Technology gap limiting productivity and competitiveness	• Technology upgrading incentives for logistics operators • Modern equipment import facilitation • Automation training programs	• PKR 168B (Technology Upgrade)	• 50% increase in operational efficiency	• Modern equipment adoption rate • Automation level in logistics • Productivity improvement %	• Ministry of Science & Technology, Logistics companies
3.2	**Weak Digital Logistics & E-commerce Integration**	• Digital logistics platforms • E-commerce fulfillment infrastructure • Last-mile delivery optimization	• Limited online presence, fragmented e-commerce logistics, inefficient last-mile delivery	• Restricted market reach, higher logistics costs for SMEs	• Digital logistics platform development • E-commerce logistics infrastructure • Smart last-mile	• PKR 112B (Digital Integration)	• 200% increase in e-commerce logistics efficiency	• Digital platform adoption • E-commerce delivery time • Last-mile cost reduction	• E-commerce companies, MoIT, Private logistics providers

#	Issues	Sub-issues	Cause	Cost to Economy	Reform Proposal	Investment Cost	Expected Outcome	Measurable KPIs	Action By
Technology Adaption									
					delivery solutions				
Human Resource Issues									
4.1	**Skills Gap in Logistics Operations**	• National logistics training programs • Specialized certification programs • International standards training	• Limited technical expertise, only ~5% of logistics workforce formally trained	$2-3M annually in inefficiencies due to skills gaps[106]	• National Logistics Training and Certification Program • International certification programs • Industry-specific skills development	PKR 112B (Skills Development)	25,000+ trained logistics professionals	• % workforce certified • International certification achievements • Industry skills assessment scores	NAVTTC, PSDF, International training institutes
4.2	**Limited University-Industry Collaboration in Logistics**	• Industry-driven logistics curriculum • Collaborative research programs • Technology transfer office establishment	Weak linkages between academic programs and industry needs, limited research collaboration	Technology commercialization gap in logistics sector	• Industry-driven logistics curriculum development • Joint research and development	PKR 84B (Academia-Industry Integration)	50+ active university-industry partnerships	• Joint research projects • Graduate employment in logistics • Industry-funded research volume	HEC, Universities, Logistics companies

[106] *https://www.dawn.com/news/1893325#*

#	Issues	Sub-issues	Cause	Cost to Economy	Reform Proposal	Investment Cost	Expected Outcome	Measurable KPIs	Action By
Human Resource Issues									
4.3	**Low Female Participation in Logistics Workforce**	• Female driver and logistics staff training • Safety and incentive programs • Childcare and support facilities	Women make up <2% of logistics workforce, cultural and safety barriers	National FLFP ~22%, estimated 60% loss in GDP potential	• Female logistics workforce training programs • Safety and incentive programs for inclusion • Family-friendly workplace policies	PKR 42B (Inclusive Development)	40% increase in women participation	• % trained female workers • Female workforce percentage • Female retention rate	NAVTTC, Women Development Departments
Market Access & Development									
5.1	**Limited Regional Transit Trade Development**	• TIR system activation • Border customs digitization • Cross-border infrastructure development	Pakistan's transit trade only $400-500M vs potential $15B+, limited TIR use, poor border infrastructure	Missing opportunities in $15B+ regional transit trade potential[107]	• Activate TIR system for regional trade • Digitize border customs clearance • Upgrade border crossing infrastructure	PKR 196B (Regional Trade Development)	Increased regional cargo transit via Pakistan	• TIR freight volume/value • Border processing time • Transit trade growth	Pakistan Customs, MoC, Border coordination units

[107] *https://profit.pakistantoday.com.pk/2025/07/03/pakistan-oman-push-for-stronger-maritime-ties-direct-gwadar-ferry-service/*

#	Issues	Sub-issues	Cause	Cost to Economy	Reform Proposal	Investment Cost	Expected Outcome	Measurable KPIs	Action By
Market Access & Development									
5.2	**Weak Logistics Value Chain Integration**	• Digital B2B logistics platforms • Supply chain integration systems • Direct market linkage programs	Fragmented supply chains, excessive intermediaries, poor integration	Price distortions, inefficient resource allocation	• Digital logistics trading platforms • Integrated supply chain management • Direct shipper-logistics provider linkages	PKR 112B (Value Chain Integration)	70% improvement in supply chain efficiency	• Platform adoption rate • Supply chain integration index • Direct trade volume growth	IT companies, Logistics providers, Trade associations
5.3	**Limited Export Logistics Facilitation**	• Export logistics optimization • International quality certification • Trade corridor development	Complex export procedures, limited logistics support for exporters	Export competitiveness reduced by higher logistics costs	• Streamlined export logistics procedures • International logistics quality standards • Dedicated export logistics corridors	PKR 84B (Export Facilitation)	50% reduction in export logistics time	• Export procedure efficiency • International certifications • Export logistics time reduction	Trade Development Authority, Customs, Port authorities

#	Issues	Sub-issues	Cause	Cost to Economy	Reform Proposal	Investment Cost	Expected Outcome	Measurable KPIs	Action By
Tax Structure									
6.1	**High Tax Burden on Logistics Services**	• Rationalized tax structure for logistics • Zero-rated status for export logistics • Graduated tax system based on service complexity	17-18% GST on logistics services discouraging formalization, high compliance burden	Formal logistics sector contraction, shift to informal operations	• Simplified tax structure for logistics SMEs • Export logistics tax exemptions • Service-based graduated tax system	PKR 28B (Revenue neutral through increased compliance)	60% increase in formal logistics sector participation	• SME registration growth • Formal sector tax contribution • Service tax optimization	FBR, Ministry of Finance, Logistics associations
6.2	**Complex Tax Compliance Procedures**	• Simplified tax filing for logistics • Digital tax compliance platforms • Single integrated tax assessment	Multiple tax filings, complex procedures consuming 10-15% operational resources	High compliance costs deterring formalization	• Digital tax filing systems • Integrated tax compliance platforms • Simplified assessment procedures	PKR 42B (Digital Tax Systems)	50% reduction in tax compliance costs	• Digital filing adoption • Compliance cost reduction • Tax dispute resolution time	FBR, Provincial authorities, Tax advisory services

Investment Summary

Year-wise Investment Summary *(PKR Billion)*

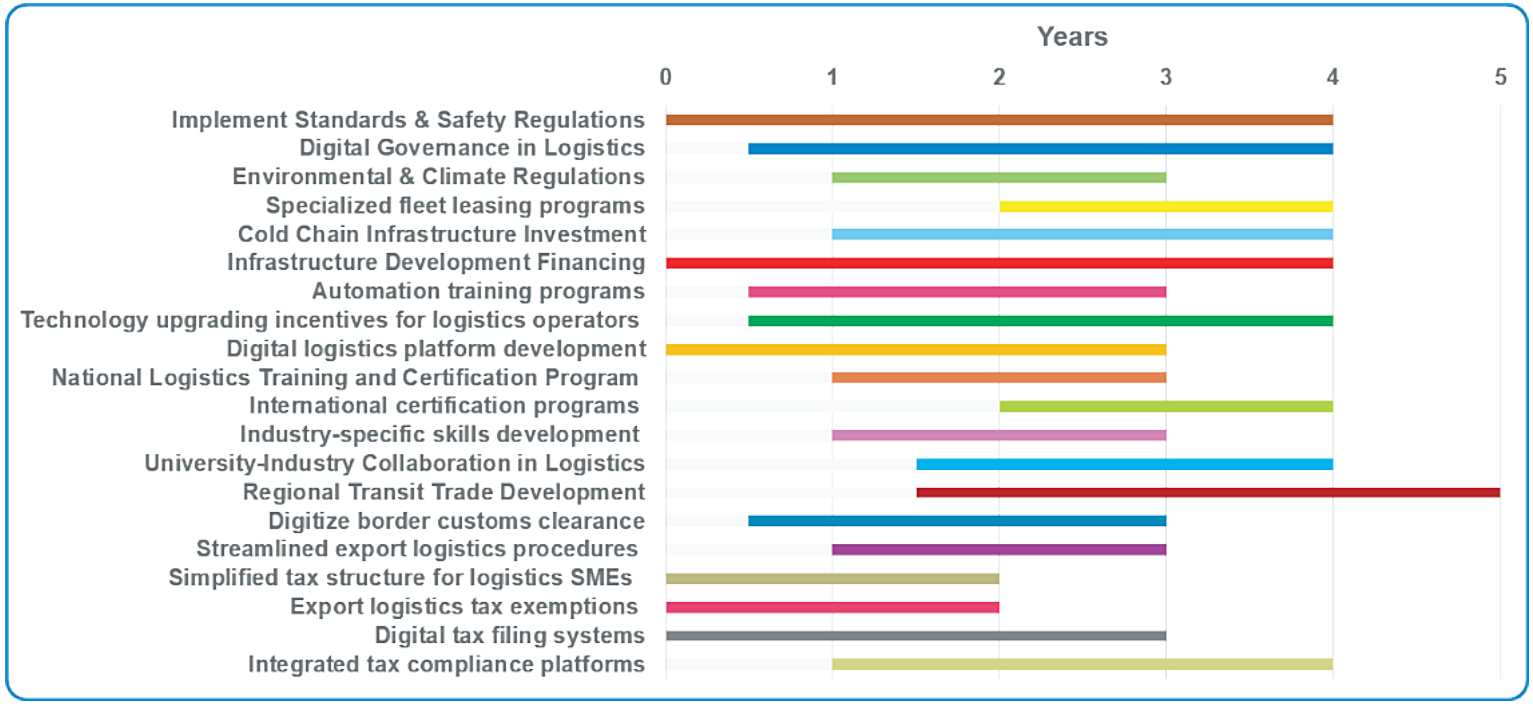
Category	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Policy & Regulatory Issues						**1,092**
1.1 Fragmented Logistics Regulation & Lack of National Coordination	2	4	7	7.5	7.5	28
1.2 Inconsistent Transport Standards & Safety Regulations	50	75	125	140	170	560
1.3 Limited Export Logistics Facilitation	10	12	15	22	25	84
1.4 Limited Environmental & Climate Regulations	35	60	90	110	125	420
Access to Finance						**1,680**
2.1 Limited Formal Finance Access for Logistics SMEs	20	20	30	30	40	140
2.2 Inadequate Cold Chain Infrastructure Investment	50	50	100	110	110	420
2.3 Limited Infrastructure Development Financing	150	180	200	250	340	1120
Technology Adoption						**280**
3.1 Limited Adoption of Modern Logistics Technology	25	25	50	33	35	168
3.2 Weak Logistics Value Chain Integration	20	20	28	29	15	112
Human Resource						**238**
4.1 Limited University-Industry Collaboration in Logistics	10	12	15	17	30	84
4.2 Skills Gap in Logistics Operations	9	15	25	28	35	112
4.3 Low Female Participation in Logistics Workforce	5	7	7	10	13	42
Market Access & Development						**392**
5.1 Limited Regional Transit Trade Development	25	35	60	35	41	196
5.2 Weak Logistics Value Chain Integration-	15	18	20	25	34	112
5.3 Limited Export Logistics Facilitation	10	12	12	20	30	84
Tax Structure						**70**
6.1 High Tax Burden on Logistics Services	2	5	5	6	10	28
6.2 Complex Tax Compliance Procedures	5	5	7	10	13	42
Total	**443**	**555**	**796**	**883**	**1,074**	**3,752**

**Proposed interventions based investment estimates*

Investment Multiplier

Multiplier impact of investment in Pakistan differs by different studies. Majority of studies have been done in context of PSDPs impact since it tends to be the largest portion of investment on aggregate (there is little in terms of estimates of private investment multiplier). However, there is no unanimity in terms of the size of multiplier. Almost all studies put it below 1, b/w 0.5 and 1. We will use 0.6 as the multiplier of investment based on these studies. Hence, the investment multiplier for this sector, logistics is PKR2.25 trillion.

Year-wise Interventions in Logistics Sector



Conclusion

Pakistan's logistics sector remains a significant drag on economic competitiveness, with costs at 12–15% of GDP – well above the global average of 8–10% - and a 97% gap in digital adoption that leaves the sector structurally inefficient and poorly integrated into regional trade networks.

The challenges are interconnected: road dependency, fragmented governance, port congestion, cold chain deficits, and widespread informality collectively suppress productivity and constrain Pakistan's ability to capture its transit trade potential – currently $400–500 million against an achievable $15 billion annually.

Realizing this potential requires a sequenced reform agenda – immediate action on digitization, tax rationalization, and cold chain investment, anchored by longer-term institutional reform through a National Logistics Council, rail and port modernization, and regional transit integration. With the right framework, logistics can transition from a structural liability into a genuine enabler of export competitiveness, agricultural value chains, and regional economic integration.

FOOD

Key Statistics

Current Performance (FY 2024-25):

- **Agriculture GDP Contribution:** 23.5% (employing 37% of labor force)
- **Agriculture Growth Rate:** 0.56% (below historical average)
- **Post-Harvest Losses:** 30-40% valued at Rs 400-500 annually
- **Food Processing Formalization:** Over 70% of non-agricultural workforce employed informally
- **Edible Oil Import Bill:** $3.14 billion (first 10 months Fy25), projected to exceed $3.7 annually
- **Food imports as % of total imports:** A rise from 10% in FY 13-14 to 14% in FY 23-24, leading to significant import bill

Infrastructure & Production:

- **Total Cropped Area:** 24.59 million hectares (FY 2023-24)
- **Cold Storage Capacity:** Severely limited, contributing to 30-40% losses
- **Fertilizer Consumption:** 3.4 million tonnes (14.1% decline in Fy25)
- **Agricultural Credit:** Rs 1,880 billion disbursed (15% increase July-March Fy25)
- **Certified Seed Availability:** 34.3% of national requirement met (714,557 MT available vs 2.083 million MT required)

Global Position:

- **Global Agri-Food Export Share:** <0.5% despite significant production capacity
- **Export Rejections:** 104 Pakistani rice consignments blocked by EU in 2024
- **Regional FDI Comparison:** Manufacturing (including food processing) receives <$150M annually vs Vietnam's >$1B
- **Value Addition:** Limited presence in high-value food processing markets

Food Security & Nutrition:

- **Malnutrition Economic Cost:** $7.6 billion annually (approximately 3% of GDP)
- **Nutritional Issues:** Significant productivity losses from stunting, anemia, and child mortality
- **Food Inflation Impact:** High logistics and fuel costs contribute to rising food prices
- **Climate Vulnerability:** $1.3 billion average annual agricultural damages from climate events

Strategic Importance

The Food sector is critical to Pakistan's economy as it encompasses crop production, livestock, food processing, Agri-trade, and food security. Prioritizing the sector addresses foreign exchange outflows, particularly the $3.7 billion[108] annual expenditure on edible oil imports, as of FY25, and reduces post-harvest losses valued at Rs 400–500 billion annually. The sector is essential for national nutrition, rural livelihoods, and maintaining domestic food availability.

According to International Food Policy Research Institute (IFPRI), approximately 7.5 million people face crisis situation in the country with regards to food insecurity between December 2025 and March 2026. This includes around 1.25 million people experiencing critical levels of acute food insecurity, which is classified as Emergency, characterized by large food gaps and high levels of acute malnutrition. Another 6.3 million people in food insecurity crisis are unable to meet their essential food requirements and are forced to resort to unstainable coping measures. Immediate, life-saving assistance is needed to prevent further deterioration and to prevent affected populations.

Pakistan holds less than 0.5% share in global agri-food exports despite significant production capacity. Regional FDI in manufacturing, including food processing, is below $150 million annually compared to Vietnam's over $1 billion. Limited presence in high-value food processing markets, recurring export rejections (104 rice consignments blocked by the EU in 2024), and poor global brand positioning reduce competitiveness in global value chains.

Key Challenges

- **High Post-Harvest Losses:** 30–40% of production lost annually, valued at Rs 400–500 billion.
- **Rising Edible Oil Imports:** Import bill reached $3.14B (10M FY25) and is projected to exceed $3.7B annually.
- **Increasing Food Import Dependence:** Food imports rose to 14% of total imports from 10% in FY13–14.
- **Declining Fertilizer Use:** Fertilizer consumption fell by 14.1%, affecting productivity.
- **Low Certified Seed Availability:** Only 34.3% of national seed requirement is met through certified seeds.
- **Agricultural Credit Disbursement:** Rs 1,880 billion disbursed, yet access remains uneven.
- **Limited Cold Storage Capacity:** Inadequate storage infrastructure constrains supply chains and increases losses.
- **Fragmented Food Safety Standards:** Disjointed standards reduce quality assurance and export readiness.
- **Weak Intellectual Property Protection:** Limited IP enforcement discourages innovation and seed development.
- **Restricted Credit and Export Financing:** Limited access to finance constrains investment and export growth.
- **Poor Rural Infrastructure:** Weak farm-to-market roads and high logistics costs reduce efficiency.
- **Limited Digital Connectivity:** Low digital penetration restricts market access and value chain integration.
- **Skills and Innovation Gaps:** Shortage of food technology skills and weak industry-academia linkages limit productivity.

[108] *State Bank of Pakistan*

- **Low Women Participation:** Underrepresentation of women reduces workforce potential in food processing.
- **Weak Institutional Coordination:** Poor federal-provincial alignment hinders policy implementation and sector development.
- **High Tax Burden:** 18% GST on processed foods and 29% corporate tax discourage formalization and competitiveness.
- **Complex Regulatory Compliance:** Burdensome procedures increase costs and limit ease of doing business.
- **Low Technology Adoption:** Import levies, outdated infrastructure, and weak technology transfer slow modernization.
- **Institutional Capacity Gaps:** Limited support for seed policy, oilseed development, and export compliance.
- **Inefficient Market Systems:** Weak contract farming, poor price discovery, and limited digital marketplaces reduce value chain efficiency.

Reform Proposals

Long Term

- **Develop Cold Chain Infrastructure:** Expand cold storage and energy-efficient systems to reduce losses and improve quality.
- **Upgrade Processing and Storage Facilities:** Establish processing zones and modernize infrastructure for value addition.
- **Enhance Technology Transfer:** Promote modern technologies and upgrade laboratories to improve productivity and standards.
- **Improve Rural Infrastructure:** Strengthen farm-to-market connectivity and logistics networks.
- **Integrate Value Chains:** Build efficient supply chains with better coordination, traceability, and market linkages.
- **Promote Gender-Inclusive Workforce:** Expand women's participation through targeted training and employment programs.

Short Term

- **Rationalize Tax Structure:** Reduce tax burden and provide export-oriented tax relief to improve competitiveness.
- **Strengthen Food Safety Regulations:** Implement robust food safety standards and quality certification systems.
- **Establish One-Window Licensing:** Simplify business processes through single-window licensing and tax services.
- **Enhance Intellectual Property Protection:** Strengthen IP frameworks and develop GI certification systems.
- **Implement National Seed Policy:** Ensure seed quality and incentivize oilseed production to reduce import dependence.
- **Streamline HACCP Certification:** Simplify and expedite certification procedures to improve export compliance.
- **Promote Contract Farming:** Enable demand-led production and improve resource efficiency across value chains.
- **Expand Agricultural Credit Access:** Introduce collateral-free lending, simplified procedures, crop insurance, and export financing.
- **Scale Digital Marketplaces:** Develop digital platforms and international marketing campaigns to boost exports.
- **Strengthen Institutional Coordination:** Align federal and provincial agencies and leverage PSQCA, TDAP, IPO, HEC, and TEVTA for regulation, training, and market development.
- **Simplify Regulatory Frameworks:** Standardize licensing, certification, and export compliance with integrated digital supply chain tools.

Analytical Framework

The Food sector encompasses sub-sectors such as crop production, livestock, food processing, agri-trade, and food security, all addressed within this unified framework.

#	Issues	Cause	Cost to Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action By
Policy & Regulatory Issues								
1.1	**High Taxes & Regulatory Burden**	• 18% GST on packaged dairy and processed foods in FY24 • 29% corporate tax, which is 47% in total, causing formal-sector contraction and trade shift to informal/unregulated segments • Federal Excise Duties on top of the sales and income tax. 5 times the product's price	• Present Impact: High compliance burden consuming 15-20% of operational resources • Competitiveness Loss: Non-competitive tax structure compared to regional competitors • Formalization Deterrent: Discourages transition from informal to formal food processing	• Rationalize tax structure for food companies • Provide export-oriented tax relief • Simplify compliance procedures • Create single-window tax services • Develop a harmonized policy with implementation delegated to provinces	• Would need a change in taxation and taxation rates	• Enhanced Competitiveness: 40% or more increase in formal sector participation • Improved Collection: Broader tax base through formalization • Export Growth: Enhanced competitiveness in processed foods	• Effective tax rate • Rate of formalization • Export growth in processed foods • Informal labor	• Federal Board of Revenue (FBR)

#	Issues	Cause	Cost to Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action By
Policy & Regulatory Issues								
		• Complex compliance requirements burden companies • Major portion of labor is informal	• Tax Revenue Losses: Significant informal economy limiting tax collection					
1.2	**Fragmented Food Safety Standards**	• Most food-processing units operate informally with limited registration and oversight • Limited quality control systems affecting export potential	• Safety Gaps: Consumer health risks and export rejections • Export Barriers: Quality issues restricting premium market access	• Strengthen food safety regulatory framework • Implement quality certification programs • Create one-window licensing systems	• No investment needed	• Food Safety: 60% improvement in safety compliance • Export Access: Reduced rejection rates • Formalization : Enhanced formal sector participation	• Registration % increase • Quality compliance rates • Export rejection reduction • Food safety incidents decline	• Pakistan Standards & Quality Control Authority (PSQCA) • Trade Development Authority of Pakistan (TDAP)
1.3	**Weak Intellectual Property Protection**	• Limited protection for food innovations and traditional products • Poor geographical indication	• Innovation Deterrent: Limited incentives for R&D investment • Brand Value Loss: Traditional products	• Strengthen IP framework for food sector in coordination with major food groups like ENGRO	• Two public sector forums, CCP and IPO Pakistan, can be effectively utilized for IP protection. They have funds at their	• Innovation Growth: Increase in food-tech patents • Brand Protection: Enhanced GI product portfolio	• Patent filings in food sector • GI products certified • Innovation investment levels	• Intellectual Property Organization Pakistan (IPO-Pakistan) • Ministry of Commerce (MoC)

#	Issues	Cause	Cost to Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action By
Policy & Regulatory Issues								
			pricing potential		disposal. Additional funds may be requested in lieu of requirements	• Premium Pricing: Better market positioning	• Brand recognition metrics	
1.4	**Import Dependence Policy Gaps**	• Pakistan spends $3.7 billion annually on edible oil imports • Limited policy support for local seed production[109] • Institutional challenges cause shifted policy focus. • Provinces don't have any oil seed specific department and Pakistan Oilseed Department offers little support to provinces	• Foreign Exchange Pressure: $3.7B annual outflow • Supply Vulnerability: Dependence on volatile international markets • Missed Opportunities: Underutilized domestic production potential	• Implement national seed policy and ensure support for provinces • Incentivize oilseed production rather than incentivizing commodities like sugar • Establish backward linkage policies • Implement strategic reserves framework	• Since 2020, federal government has been investing in oil seed development under the 'National Oilseed Enhancement Program', with an outlay of Rs. 4.1 million. The results till now should be analyzed to decide whether more public investment is required	• Import Reduction: Significant decrease in key food imports • Supply Security: Enhanced domestic production • Forex Savings: $1.5B annual foreign exchange savings	• Import dependency ratio • Domestic production growth • Foreign exchange savings • Supply chain resilience index	• Agriculture related public sector institutions at federal and provincial level • Ministry of Commerce (MoC)

[109] *https://www.sbp.org.pk/reports/quarterly/fy22/First/Special-Section.pdf*

#	Issues	Cause	Cost to Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action By
Infrastructure & Technology Issues								
2.1	**Inadequate Cold Chain Infrastructure**	• 30-40% post-harvest losses valued at Rs 400-500 billion annually. • Limited cold storage facilities nationwide • High energy costs for refrigeration • Poor rural connectivity affecting transportation	• Economic Loss: Rs 500 billion annual wastage • Food Security Impact: Reduced available supply • Price Volatility: Seasonal price fluctuations due to storage gaps	• Develop cold chain clusters in production areas • Create public-private partnerships • Establish energy-efficient storage systems	• Rs. 210 million.[110]	• Loss Reduction: 50% decrease in post-harvest losses • Price Stability: Reduced seasonal price volatility • Income Growth: 30% increase in farmer revenues	• Metric tons saved from wastage • Storage capacity addition • Price stability indices • Cold chain coverage percentage	• Ministry of Agriculture (MinAgri) • Universal Service Fund (USF) • Private cold storage companies
2.2	**Limited Food Production & Processing Technology**	• Low value addition keeping Pakistan in lower tier of	• Value Chain Position: Limited presence in high-value	• Establish food processing zones • Create technology	• $1B (Processing Infrastructure)	• Value Addition: 40% increase in processed food exports	• Processed food export percentage • Technology adoption rates	• Board of Investment (BOI) • Ministry of Industries (MoI)

[110] *The present number of cold storages total 507 (https://rentechdigital.com/smartscraper/business-report-details/list-of-cold-storage-facilities-in-pakistan). The present number of cold storages total 507. The minimum requirement to avert large portion of losses would be around 1,200 units. A 2015 study by SMEDA ('Pre-Feasibility Study- COLD STORAGE (FRUIT & VEGETABLE)') estimate that per unit cold storage price came to Rs. 135.78 million, which by now would be above Rs. 300 million at least. So, going by the required number of units, the total investment requirement is around Rs. 210 billion*

#	Issues	Cause	Cost to Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action By
Infrastructure & Technology Issues								
		global food supply chain • Limited access to modern processing equipment due to hefty levies and regulatory issues • Poor technology transfer mechanisms	processing markets • Export Limitations: Restricted to raw commodity exports • Employment Impact: Missed job creation opportunities	transfer programs • Develop equipment financing schemes • Offer relief in levies and taxes on equipment import • Build processing capacity clusters		• Technology Adoption: Modern processing capabilities • Employment: 200,000 new jobs in Processing	• Processing capacity utilization • Job creation in processing	• Special Technology Zones Authority (STZA)
2.3	**Poor Rural Infrastructure**	• Weak farm-to-market road networks • Limited transportation facilities • High logistics costs affecting competitiveness • Inadequate digital connectivity in rural areas	• Cost Disadvantage: High transportation costs reducing farmer margins • Market Access: Limited connectivity to premium markets • Efficiency Loss: Poor logistics	• Upgrade rural road infrastructure • Develop agricultural logistics hubs • Create digital connectivity networks • Establish transportation subsidies	• $1B (Rural Infrastructure)	• Cost Reduction: 25% decrease in farm-to-market costs • Connectivity: Enhanced rural market access • Efficiency: Improved supply chain performance	• Road infrastructure addition (km) • Transportation cost reduction • Market accessibility index • Digital connectivity coverage	• National Highway Authority (NHA) • Ministry of Planning, Development & Special Initiatives (MoPDSI)

#	Issues	Cause	Cost to Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action By
Infrastructure & Technology Issues								
			affecting supply chain performance					
Market Access & Trade Issues								
3.1	**Limited Global Market Penetration**	• Pakistan has <0.5% share in global agri-food exports • Procedural delays in establishing facilities in the importing countries1 • EU trade data confirms minimal presence (under 0.5% of EU agri-food imports) • Limited international marketing presence • Poor brand positioning globally	• Export Potential Unrealized: Current $3.5B vs potential $15B • Market Share Loss: Competitors capturing market opportunities • Brand Recognition: Poor global awareness of Pakistani food products	• Scale up international marketing campaigns • Develop product branding strategy • Make expedited procedures for facilities approval part of government - to-government negotiations • Create export promotion incentives	• The facility of Trade and Investment Officers already posted outside of Pakistan can be utilized for this purpose	• Export Growth: Significant increase in food exports • Market Diversification: Entry into new markets • Brand Recognition: Enhanced global positioning	• Export value by region • Market share in key destinations • Brand awareness metrics • International trade events participation	• Trade Development Authority of Pakistan (TDAP) • Ministry of Foreign Affairs (MoFA)

#	Issues	Cause	Cost to Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action By
Market Access & Trade Issues								
3.2	**Non-Compliance with International Standards**	• No International Residue Monitoring Plan in place • In 2024, EU blocked 104 consignments of Pakistani rice due to quality issues • Significant rejection rates in export markets • Poor compliance with food safety standards • No awareness about disease controls or lax control mechanism eliminate trust in quality	• Export Losses: Millions in rejected shipments • Reputation Damage: Poor quality perception in international markets • Market Access: Restricted entry to premium markets	• Establish HACCP certification programs • Formulate required export frameworks • Upgrade laboratory testing facilities • Create quality assurance systems • Develop export inspection protocols	• Regulatory compliance and investment in agriculture and livestock will improve results for this indicator too	• Rejection Reduction: 70% decrease in export rejections • Market Access: Entry to premium export markets • Quality Recognition: International certification achievements	• Export rejection percentage • International certifications obtained • Quality compliance rates • Premium market access metrics	• Pakistan Standards & Quality Control Authority (PSQCA) • Trade Development Authority of Pakistan (TDAP)

#	Issues	Cause	Cost to Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action By
Market Access & Trade Issues								
		• Inadequate certification infrastructure						
3.3	**Weak Value Chain Integration**	• Price distortions and middlemen exploitation • Farmers receiving only 30-40% of consumer prices • Limited direct market access • Poor information systems	• Farmer Exploitation: Significant income losses for farmers • Price Volatility: Unstable pricing throughout value chain • Efficiency Loss: Multiple intermediaries increasing costs	• Develop contract farming systems • Create digital marketplace platforms • Facilitate farmer-buyer linkages • Implement price discovery mechanisms	• More of a coordination issue rather than expenditure issue	• Farmer Income: Increase in farmer price share • Price Transparency: Reduced information asymmetry • Efficiency: Streamlined value chains	• Farmer price share percentage • Contract farming volumes • Digital platform transactions • Price volatility reduction	• Punjab Information Technology Board (PITB) • Ministry of Agriculture (MinAgri)
Human Resource & Capacity Issues								
4.1	**Skills Gap in Food Technology**	• Limited training in modern food processing techniques • Universities lack industry-relevant curricula	• Productivity Loss: Reduced efficiency due to skill gaps • Innovation Deficit: Limited	• Commercialize universities' R&D on agriculture and Food • Create industry-academia	• Introducing changes in the existing mechanism will bring out the required result. No additional	• Skilled Workforce: 50,000 industry-ready graduates annually • Industry Satisfaction:	• Graduate employment rates • Industry skill assessments • Faculty-industry collaboration projects	• Higher Education Commission (HEC) • Technical Education & Vocational Training

#	Issues	Cause	Cost to Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action By
Human Resource & Capacity Issues								
		• Poor industry-academia collaboration • Insufficient continuing education infrastructure	technical innovation capacity • Competitiveness: Falling behind in global food technology trends	collaboration frameworks • Update curriculum at public sector training institutes with specialized food technology training	investment required.	79% job placement rate achievement • Collaboration: Enhanced collaboration between industry and academia upon requirements	• Training program completion rates	Authority (TEVTA)
4.2	**Gender Inclusion & Diversity**	• Women represent significant portion of agricultural workforce but often unpaid • Limited formal participation in food processing • Cultural and structural barriers limit women's participation • Missing contribution to food	• Talent Underutilization: 50% of potential workforce (women) significantly underrepresented • Economic Impact: Missing significant contribution to sector growth • Innovation Deficit: Reduced creativity due	• Women-specific food processing training • Promote flexible work arrangements • Establish women-focused technology incubation centers • Create and enforce gender-inclusive policies	• No additional investment required	• Participation Increase: Women's workforce participation from 20% to 35% • Economic Empowerment: Increased women's contribution to food exports • Global Recognition: Pakistan as inclusive food destination	• Women's workforce participation rate • Female enrollment in food technology • Women-led food enterprises • Gender diversity metrics	• Women Development Departments • Ministry of Human Rights

#	Issues	Cause	Cost to Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action By
			to lack of diverse perspectives					
Access to Finance								
5.1	**Limited Access to Agricultural Credit**	• Despite Rs 1,880 billion disbursed, small farmers have limited access • Complex application procedures • High collateral requirements • Insufficient risk management instruments	• Growth Constraint: Limited funding for agricultural expansion • Technology Adoption: Farmers unable to invest in modern techniques • Productivity Impact: Reduced agricultural productivity due to credit constraints	• Simplify agricultural credit procedures • Create collateral-free lending schemes • Establish crop insurance programs • Develop risk-sharing mechanism • Farmer link up with PACRA for building credit history and access to credit	• Changes in State Bank's policy will render the required results.	• Credit Access: 40% increase in small farmer credit access • Technology Adoption: Enhanced modern farming techniques • Risk Management: Comprehensive crop insurance coverage	• Credit utilization rates • Small farmer loan approvals • Technology adoption metrics • Insurance coverage percentage	• State Bank of Pakistan (SBP) • Zarai Taraqiati Bank Limited (ZTBL)

#	Issues	Cause	Cost to Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action By
Access to Finance								
5.2	**Export Financing Gaps**	• Complex withholding tax structures create compliance burden • Cash flow problems due to refund delays • High compliance burden consuming operational resources • Limited export credit facilities	• Cash Flow Issues: Delayed refunds affecting business operations • Competitiveness Loss: High administrative costs reducing export competitiveness • Limited working capital for export expansion	• Establish automated refund processing systems • Create dedicated export financing facilities • Implement export credit guarantee schemes • Develop working capital support programs	• Export finance schemes are available with the State Bank. They can be directed to the Food sector as well.	• Enhanced Cash Flows: Faster refund processing • Export Growth: Enhanced competitiveness in international markets • Working Capital: Improved availability for export businesses	• Average refund processing time • Export credit utilization rates • Working capital availability metrics • Export financing growth rate	• Federal Board of Revenue (FBR) • Export Development Fund

Investment Summary

Investment Summary (PKR Billion)

Category	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Policy & Regulatory Issues						**-**
Technology Adoption						**768**
2.1 Cold Chain Infrastructure	25	30	40	60	55	210
2.2Updated Food Production & Processing Technology	60	50	40	64	65	279
2.3 Upgraded Rural Infrastructure	-	200	79	-	-	279
Market Access & Development	0.15	0.15	0.15	0.15	0.15	**0.77**
Human Resource						**-**
Access to Finance						**-**
Tax Structure						**-**
Total	**85.15**	**280.15**	**159.15**	**124.15**	**120.15**	**768.77**

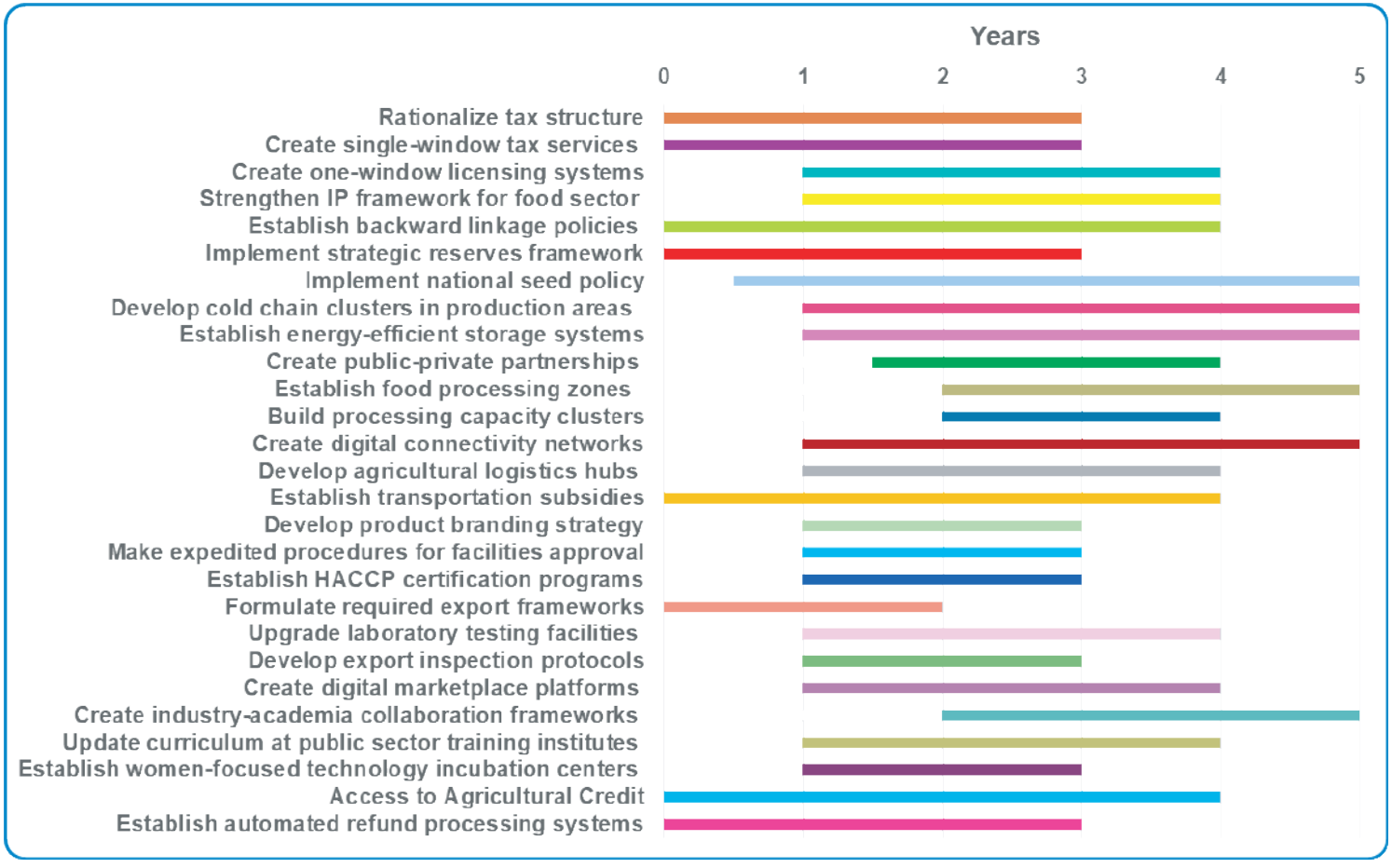
**Proposed interventions based investment estimates*

Investment Multiplier

The multiplier impact of investment in Pakistan differs by different studies. Majority of studies have been done in context of PSDPs impact since it tends to be the largest portion of investment on aggregate (there is little in terms of estimates of private investment multiplier). However, there is no unanimity in terms of the size of multiplier. Almost all studies put it below 1, between 0.5 and 1. We will use 0.6 as the multiplier of investment based on these studies.

The investment multiplier value for the Food sector is Rs. 461.26 billion, spanned over 5 years.

Year-wise Interventions in Food Sector



Conclusion

The food sector is central to Pakistan's economic stability, food security, and rural livelihoods, yet remains constrained by high losses, import dependence, and weak value addition. Structural inefficiencies, limited competitiveness in global markets, and gaps in infrastructure and regulation continue to suppress its potential. Targeted reforms—combining tax rationalization, improved standards, credit access, and digitalization with long-term investments in cold chains, processing, and value chain integration—are essential. Effective implementation can reduce import dependence, enhance exports, and transform the sector into a resilient and competitive driver of growth.

HALAL PRODUCTS

Key Statistics

Current Performance (2025):

- **Global Halal Market Size:** $7 trillion (estimated)
- **Pakistan's Halal Exports:** $512 million in FY2023-24
- **Global Halal Cosmetics Market:** $107-115 billion in 2024-25
- **Global Halal Pharmaceuticals Market:** $1.66 billion
- **Pakistan's Market Share:** <0.1% of global halal market

Pakistan's Position:

- **Export Concentration:** Heavily concentrated in meat and meat preparations ($512M in FY2023-24)
- **Certification Infrastructure:** Only 7 PNAC-accredited halal certifiers
- **Cosmetics Exports:** $11.5 million (2023) including halal and non-halal items
- **Pharmaceuticals Exports:** $399 million (2023) with little halal visibility
- **Certification Processing Time:** 6-month average certification delays
- **Domestic Awareness:** Halal cosmetics remain uncommon due to low consumer adoption

Strategic Importance

The Halal Products sector is part of a $7 trillion[111] global market, offering significant economic potential for Pakistan. Prioritizing this sector can diversify exports beyond the current over-concentration in meat and meat preparations, which represented $512 million in FY 2023-24. Expanding into food, cosmetics, and pharmaceuticals allows Pakistan to tap into high-growth global segments such as the Halal Cosmetics Market ($107-115 billion) and Halal Pharmaceuticals Market ($1.66 billion). Strengthening the Halal sector also addresses domestic awareness gaps and enhances the country's competitiveness in global value chains.

Currently, Pakistan's market share in the global Halal market is less than 0.1%, reflecting limited formalization and low adoption of Halal cosmetics and pharmaceuticals. By formalizing the industry, expanding certification infrastructure, and supporting technology adoption, the sector can increase employment, stimulate value addition, and enhance productivity. Halal exports can also generate foreign exchange earnings, contributing to macroeconomic stability and strengthening linkages with allied sectors such as livestock, food processing, and pharmaceuticals.

Certification delays, fragmented regulatory frameworks, and informal production limit access to international markets. Addressing these challenges through export diversification, unified certification systems, and international-standard training can improve Pakistan's competitiveness and global brand recognition, facilitating entry into high-value markets and enhancing integration into global Halal supply chains.

Key Challenges

- **Low Halal Export Share:** Total Halal exports stood at $512M (FY24), with $11.5M in cosmetics and $399M in pharmaceuticals.
- **Limited Domestic Market Adoption:** Halal cosmetics market remains underdeveloped due to low consumer awareness and demand.
- **Weak Certification Capacity:** Only seven PNAC-accredited certifiers exist, with average certification time of six months.
- **Minimal Global Presence:** Pakistan captures less than 0.1% of the global Halal market.
- **Overconcentration in Meat Exports:** Sector heavily reliant on meat, limiting diversification into high-value segments.
- **Fragmented Industry Structure:** Informal and unorganized market reduces efficiency and formal sector growth.
- **Low Consumer Awareness:** Limited domestic awareness restricts adoption of Halal-certified products.
- **Disjointed Certification System:** Multiple certifiers create legitimacy issues and procedural delays.
- **Unskilled Human Capital:** Lack of trained workforce limits productivity and innovation.
- **Low Market Adoption in High-Value Segments:** Halal cosmetics and pharmaceuticals remain underutilized.
- **High Fiscal Burden:** Complex tax regimes impose ~$500M in additional annual costs without sector-specific incentives.
- **Technology Adoption Barriers:** Procedural bottlenecks hinder technology transfer and modernization.
- **Inefficient Certification Processes:** Fragmented systems and delays reduce export competitiveness.

[111] *https://halalfoundation.org/resource/global-halal-market-statistics/*

- **Limited R&D and Training:** Lack of standardized programs constrains innovation and workforce development.
- **Weak Institutional Coordination:** Poor regulatory alignment hinders sector formalization and growth.
- **Restricted Value Chain Integration:** Constraints limit export potential, value addition, and participation in global Halal markets.

Reform Proposals

Long Term

- **Promote R&D and Innovation:** Incentivize research, product development, and branding to enhance value-added exports.
- **Standardize Certification Ecosystem:** Build globally recognized accreditation systems to improve export acceptance.
- **Strengthen Value Chain Integration:** Develop end-to-end Halal supply chains for efficient production and traceability.

Short Term

- **Diversify Halal Exports:** Expand beyond meat into food, cosmetics, and pharmaceuticals to increase value addition.
- **Establish Unified Certification System:** Implement a single-window Halal certification framework to reduce delays and improve credibility.
- **Develop National Branding Strategy:** Create a strong Halal brand to enhance global market positioning.
- **Introduce Training Programs:** Standardize Halal certification and product training across public sector institutions.
- **Rationalize Tax Framework:** Simplify taxes to reduce production costs and improve competitiveness.
- **Expand Access to Finance:** Facilitate credit through microfinance banks and national incubator programs.
- **Streamline Technology Transfer:** Reduce procedural delays to accelerate adoption of modern technologies.
- **Strengthen Institutional Coordination:** Align MoC, TDAP, PSQCA, PNAC, SBP, SMEDA, and other stakeholders for effective governance.
- **Simplify Regulatory Compliance:** Reduce procedural bottlenecks and streamline compliance requirements to encourage formalization.
- **Develop Skilled Workforce:** Introduce internationally recognized training and certification programs for human capital development.

Analytical Framework

The Halal Products sector encompasses sub-sectors such as over-concentration in meat exports, weak certification infrastructure, collateral constraints, missing domestic awareness, import duty burden all addressed within this unified framework.

#	Issues	Cause	Cost to Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action By
Policy & Regulatory Issues								
1.1	**Over-Concentration in Meat Exports**	• Inadequate value-addition mechanism, including infrastructure	• Restricts Pakistan's share in the $7 trillion global halal market • Pakistan exported only $11.5M worth of beauty and personal care products in 2023 vs global halal cosmetics market of $107-115 billion	• Diversify halal exports category, bringing in food, cosmetics, pharma, etc • National branding strategy	• No additional investment required. Awareness for investors and improving regulatory frameworks can bring out the desired results.	• Export diversification by product and by destination • Higher market share, plus increased share in Pakistan's total exports	• Product-wise halal export % • Halal category exports by destination and product-wise	MoC, TDAP, Livestock departments at provincial level
1.2	**Informal and Fragmented Industry**	• Regulatory crackdowns show widespread sale of unregistered halal cosmetics and food items	• Undermining certified producers and product safety standards, leading to export restrictions	• Analyze why producers want to remain informal (tax, prices or other factors) and what would it take to formalize them	• No investment required, as only regulatory changes required.	• Enhanced quality and safety or Halal product category • Increased tax revenue due to formalization • Increase in production due to	• Registered units • Quality certification	SMEDA, Planning Ministry

#	Issues	Cause	Cost to Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action By
Policy & Regulatory Issues								
				• Halal product certification training programs		removal of impediments		
Access to Finance								
2.1	**High Capital Requirements**	Halal manufacturing requires significant initial investment deterring local entrepreneurs	Unrealized commercial potential from underfunded halal R&D, leading to lower investments	• National Incubator for Startups and Funding • Halal credits via Microfinance Banks	• Investment in livestock will largely cover the costs for Halal products too.	Increase in the number of Halal product startup funding	Number of halal companies receiving funding	SBP, Islamic Banks
Technology Adoption								
3.1	**Low Value Addition in Halal Products Food**	• Pakistan mainly exports raw or semi-processed halal foods and imports processed items. • Halal cosmetics and pharmaceuticals remain uncommon in Pakistan	Limited value addition and weak export competitiveness	• Value-added halal food clusters • Incentives for R&D and branding (like tax break)	• Improving universities' R&D and commercializing research will largely materialize these results. Hence, no additional investment required.	• Value addition leading to higher export potential • Brand visibility	• Value-added export % • SME growth	BOI, MoC, SMEDA

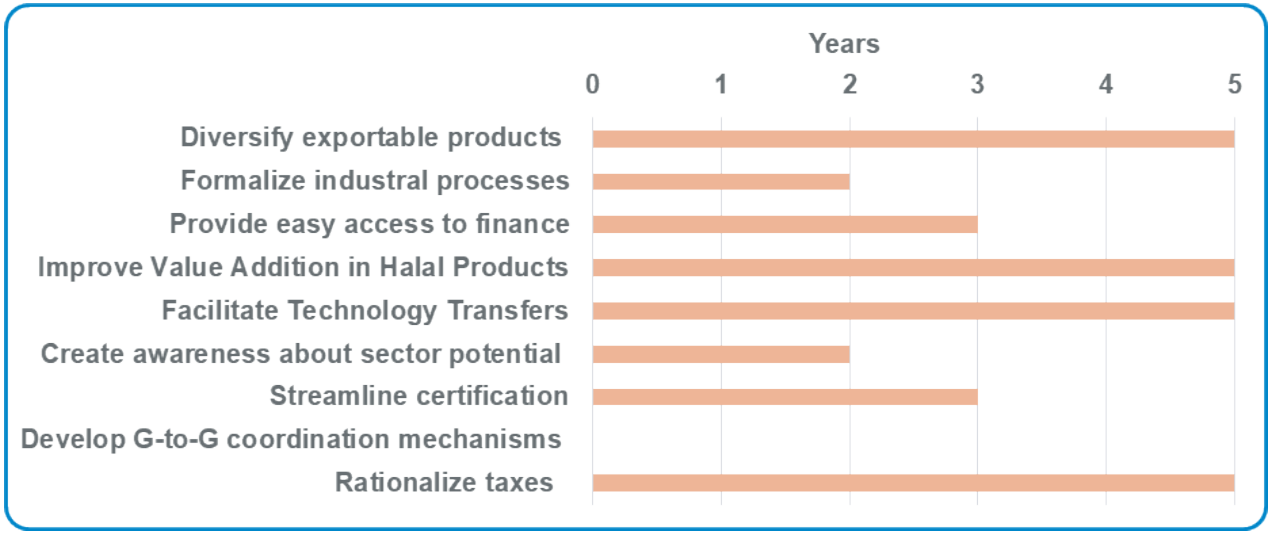
#	Issues	Cause	Cost to Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action By
Technology Adoption								
		due to low consumer adoption and limited market presence.						
3.2	**Technology Transfer Barriers**	Complex procedures for acquiring international halal technology and licenses and equipment	$300M annually in delayed tech adoption	Revisit and remove the procedural bottlenecks affecting technology transfer	Investment in other sectors, such as livestock and food will cover these costs as well.	70% reduction in technology transfer timelines	Technology transfer processing time	FBR, MoC, Planning Ministry
Human Resource Issues								
4.1	**Missing Domestic Awareness about market potential and untrained human capital**	Halal cosmetics remain uncommon in Pakistan due to low consumer adoption and limited market presence. Moreover, human capital in this segment lacks international standard training	Domestic market potential of $2B untapped	• Updating curriculum and standard of public sector training institutions in this sector	No additional investment needed.	• Internation-ally acceptable training courses and certifications • Higher % of certified workforce in this sector	• Curriculum updates • International acceptability • Trained workforce%	NAVTCC, HEC

#	Issues	Cause	Cost to Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action By
Market Access & Development								
5.1	**Fragmented Certification Paraphernalia and Procedural Delays**	• 7 PNAC-accredited halal certifiers. Overall, a multitude of certifiers discourage buying countries due to difficulty in determining legitimacy • 6-month average certification delays reduce competitiveness	Untapped export potential	• Unified, single-window halal accreditation system	Unifying halal certification will require policy changes, not additional investment.	• Improved market access • Global recognition	• Certified units • Export approvals	PSQCA, PNAC, MoST
Tax Structure								
6.1	**Complex Tax Regime**	Multiple taxes with no sector-specific incentives for halal manufacturing	$500M annually in additional costs due to unfavorable tax structure	Develop simplified tax framework for halal sector	Simplifying tax framework needs changes in regulatory policies, so no additional investment required.	40% reduction in production costs	Production cost reduction percentage	FBR

Investment Summary

Investments in Livestock and Food will cover many requirements of this sector. The other required reforms focus on policy changes.

Year-wise Interventions in Halal Products Sector



Conclusion

The Halal sector presents a substantial opportunity for Pakistan to diversify exports and integrate into a rapidly growing global market, yet remains constrained by fragmentation, low value addition, and weak institutional alignment. Limited certification capacity, low adoption in high-value segments, and regulatory inefficiencies continue to suppress competitiveness. Targeted reforms—focused on unified certification, export diversification, tax rationalization, and human capital development—are essential to unlock growth. With effective implementation, the sector can enhance foreign exchange earnings, strengthen value chains, and position Pakistan as a credible player in global Halal markets.

GEMS & JEWELRY

Key Statistics

Current Performance (FY25):

- **GDP Contribution:** 0.07% - significantly below potential given world-class gemstone reserves
- **Direct Employment:** 600,000 individuals with 400,000 indirect jobs
- **Exports:** $29 million (2024) in which Gemstone exports at mere $5-7 million. Pakistan ranks 124th globally in jewelry exports
- **Trade Deficit:** $13.1 million (2024) - highly volatile, swung from +$39.3M surplus in 2023
- **Gemstone Reserves:** 70M carats Emeralds, 200M carats Rubies, significant Aquamarine, Topaz and Peridot deposits
- **Market Structure:** Over 50,000 establishments, mostly informal, fragmented across single-shop operations
- **Export Growth:** 55% increase from 2020-2024, albeit from extremely low base of $18.6M
- **Gold Dependency:** 100% reliance on smuggled/recycled gold due to commercial import restrictions

Global Context & Rankings:

- **Global Gems and Jewelry Market Size:** Between $377-$417 billion[112] (2024-25)
- **Export Rankings: Pakistan at 124th position vs India ($29.9B), Italy ($25.7B), Switzerland ($137B)**
- **Value Loss:** 60-70% value lost through export and smuggling of rough gemstones instead of finished products
- **Import Concentration:** USA (31%), UAE (27%), China (21%) - narrow sourcing base
- **Export Concentration:** Exports to UAE (33%), Germany (30%), USA (22%) - limited market diversification
- **Processing Gap:** Minimal local lapidary capacity, forcing export of unprocessed stones to Thailand, India, China

Infrastructure & Jewelry Systems:

- **Transportation:** No specialized secure courier services for precious cargo
- **Technology Gap:** 80% reliance on traditional manual techniques vs modern CAD/CAM requirements
- **Training Centers:** PGJDC facilities in 4 cities underperforming, lack international certification recognition
- **Customs barriers:** Not easy to export large consignments of Gemstones due to difficult custom procedures
- **Gem Labs:** Not a single internationally recognized GIA lab(or similar standards) in the country, limiting export potential
- **Refining Capacity:** Only one formal refiner (ARY) vs massive informal sector operations
- **Common Facility Centers (CFCs):** Non-functional despite establishment, lack modern machinery
- **Mining Infrastructure:** Primitive techniques, explosive-based extraction causing 60-70% wastage

Innovation & Technology Infrastructure:

- **R&D Investment:** Virtually zero in lapidary technology and jewelry design innovation
- **Design Capacity:** Traditional designs dominate, minimal contemporary/export-oriented design capability
- **Geological Surveys:** Incomplete mapping of gemstone deposits limits exploitation
- **Technology Training:** Limited access to top tier CAD/CAM and precision equipment training
- **International Partnerships:** Minimal collaboration with global jewelry design schools
- **Standards Compliance:** No RJC (Responsible Jewelry Council) certified operations
- **Patent/IP Activity:** Near-zero in processing techniques and jewelry design
- **Academic Programs:** Limited gemology and jewelry design programs at university level

Strategic Importance

Pakistan's gems and jewelry sector hold significant potential for export growth and employment generation but remains underdeveloped. The country possesses world-class gemstone reserves – around 70 million carats of emeralds, 200 million carats of rubies, and substantial deposits of aquamarine, topaz, peridot, and rare stones such as Verynenite - yet contributes only 0.07% to GDP, reflecting a wide gap between potential and performance.

Despite a global market valued at $377–417 billion (2024–25), Pakistan's participation is minimal due to structural inefficiencies, weak regulatory frameworks, and limited value addition. Most gemstones are exported in raw form, resulting in a 60–70% loss in potential value, with downstream processing captured by countries like Thailand, India, and China.

The sector supports approximately 600,000 direct and 400,000 indirect jobs across mining, processing, manufacturing, and trade. However, it remains highly fragmented, with over 50,000 largely informal, small-scale enterprises. Although exports grew by 55% between 2020 and 2024, they reached only $29 million, alongside a trade deficit of $13.1 million, indicating weak competitiveness.

Globally, Pakistan ranks 124th in jewelry exports, far behind major exporters such as India, Italy, and Switzerland. Trade is concentrated in limited markets—primarily the UAE, Germany, and the United States—while import sourcing is similarly narrow. Limited domestic processing capacity and absence of modern lapidary and certification facilities further constrain competitiveness, as value addition is captured abroad.
Given Pakistan's mineral endowment and rising global demand, strengthening domestic processing, certification, and value addition can significantly enhance exports, create employment, and enable integration into global luxury value chains.

[112] *'Global Gems and Jewelry Market', Ken Research and 'Gems and Jewelry Market Overview' by Market Reports World*

Key Challenges

- **Low Economic Contribution & Export Base:** Despite large reserves, the sector contributes only 0.07% to GDP, with exports at $29 million and gemstone exports limited to $5–7 million, reflecting underperformance.
- **Informality & Fragmentation:** A largely informal and fragmented industry restricts access to finance, limits export capacity, and weakens supply chain traceability.
- **Limited Technological Adoption:** Nearly 80% of production relies on manual techniques, with minimal use of CAD/CAM and modern manufacturing required for global competitiveness.
- **Weak Institutional Capacity:** Training and support infrastructure (e.g., PGJDC facilities) remain underutilized and lack internationally recognized certification standards.
- **Disrupted Policy Framework:** Suspension of SRO 760(I)/2013 has constrained formal import–export mechanisms, limiting access to legal gold supply and increasing reliance on informal sources.
- **Absence of Hallmarking & Standards Enforcement:** Lack of a mandatory hallmarking system and weak enforcement of PSQCA standards reduce consumer trust and international credibility.
- **Illegal Mining & Smuggling:** Weak enforcement, high royalties, and complex licensing promote informal extraction, reducing traceability and state revenues.
- **Limited Geological Mapping:** Only 30–35% of the country is mapped for gemstone deposits, discouraging investment and resource development.
- **Certification & Compliance Barriers:** Absence of internationally accredited gemstone certification labs increases reliance on costly foreign certification, delaying exports.
- **Regulatory & Fiscal Constraints:** High taxation on gold imports discourages formal trade and perpetuates dependence on informal supply chains.
- **Inefficient Mining Practices:** Use of primitive extraction methods leads to 60–70% wastage of gemstones, reducing value realization.
- **Weak R&D & Skill Development:** Minimal investment in gemology research, jewelry design, and academic programs limits innovation and value addition.
- **Environmental & Safety Risks:** Use of hazardous chemicals (e.g., mercury) in informal processes creates health, environmental, and export compliance challenges.

Reform Proposals

Long Term

- **Formalization & Sector Structuring:** Develop a comprehensive framework to formalize the fragmented industry, improve access to finance, enhance supply chain traceability, and integrate SMEs into formal export systems.
- **Institutional Strengthening & Capacity Building:** Revamp and fully operationalize PGJDC training centers with internationally recognized certification standards; expand training in gemology, jewelry design, and advanced manufacturing.
- **Geological Mapping & Resource Development:** Accelerate nationwide geological surveys beyond the current 30–35% coverage to unlock investment, improve resource planning, and support sustainable mining.
- **Regulatory & Policy Reforms:** Introduce a stable and facilitative regulatory framework, including rationalization of gold import taxation and simplification of licensing procedures to reduce informality and smuggling.
- **Hallmarking & Standards Enforcement:** Establish and enforce a mandatory national hallmarking system, strengthen PSQCA compliance, and operationalize PGJDC hallmarking centers to build consumer trust and international credibility.
- **Certification Infrastructure Development:** Establish internationally accredited gemstone and jewelry certification laboratories within Pakistan to reduce reliance on foreign certification, lower costs, and expedite exports.
- **R&D, Innovation & Skills Development:** Promote investment in gemology research, jewelry design, and academic programs to strengthen innovation, value addition, and competitiveness in global markets.
- **Sustainable Mining & Environmental Compliance:** Introduce regulations and incentives for environmentally sustainable mining practices, reducing reliance on hazardous chemicals and improving occupational safety standards.

Short Term

- **Revival of Facilitative Trade Mechanisms:** Reinstate and modernize schemes such as SRO 760(I)/2013 (entrustment and self-consignment) to restore ease of import–export operations and improve access to formal gold supply.
- **Technological Upgradation & Modernization:** Provide targeted incentives for adoption of CAD/CAM technologies, modern machinery, and improved mining techniques to reduce wastage (currently 60–70%) and enhance product quality.
- **Reduction in Informal Practices:** Strengthen enforcement against illegal mining and smuggling while introducing incentives for formal compliance to improve traceability and state revenue collection.
- **Tax & Duty Rationalization:** Reduce high taxation on commercial gold imports to encourage formal trade channels and stabilize input supply for jewelers.
- **Utilization of Existing Infrastructure:** Improve efficiency and utilization of existing PGJDC facilities through targeted programs, industry linkages, and awareness initiatives.

Analytical Framework

The gems and jewelry sector encompasses sub-sectors such as gemstone mining and extraction, lapidary (cutting and polishing), precious metal refining, jewelry manufacturing, trading, and export.

#	Issues	Cost to Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action By
Policy & Regulatory Issues							
1.1	**Suspension of SRO 760(I)/2013 - Entrustment and Self-Consignment Schemes - eliminating facilitative import/export mechanisms for jewelry trade without viable alternative.**	Jewelers unable to access formal gold channels; forced reliance on smuggled gold; existing export orders cancelled	Restore SRO 760(I)/2013 with enhanced monitoring. Allow duty-free gold import for export under Entrustment Scheme with 120-day re-export requirement and 1% refundable deposit	Investment not required	Formal gold supply chain restored; $100-150M export potential unlocked within 12 months; documented transactions trackable	• Increase in Export value • Increase in formal gold importers registered with TDAP passbooks	Ministry of Commerce, TDAP, FBR (Customs)
1.2	**Absence of Mandatory Hallmarking System – No legal requirement for gold purity certification. PGJDC hallmarking**	Annual export loss due to lack of international trust; domestic consumer fraud; undermines Pakistan brand; prevents premium pricing	• Make PSQCA hallmarking mandatory for all gold jewelry >1 gram. • Upgrade PGJDC labs to international standards. • Establish 15 regional hallmarking	Investment not required	Consumer protection established; export credibility enhanced; premium pricing enabled; 90% market hallmarked within 3 years	• Enforcing Hallmarking coverage • Consumer complaints down 75% • Export acceptance up 150% • Price premiums 10-15% for	PGJDC, PSQCA, Ministry of Industries & Production, FBR (enforcement)

#	Issues	Cost to Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action By
Policy & Regulatory Issues							
	centers non-functional. PSQCA standards not enforced.		centers. • Impose penalties for non-compliance			hallmarked	
1.3	**Illegal Mining and Smuggling Networks due to weak enforcement; porous borders; complex bureaucratic licensing; high royalty rates incentivize informal operations; lack of resources in provincial departments.**	Annual gemstone smuggling worth millions of USD; loss of royalty revenue loss; no traceability; unfair competition; security concerns	• Streamline mining lease procedures to 30-day approvals. • Reduce royalty rates to incentivize formal operations. • Install block chain-based tracking from mine to market. • Strengthen border controls	• Estimated additional amount of Rs.200-250 million for strengthening of customs and surveillance procedures;	• Formal mining licenses increase by 300%; smuggling reduced by 70%; significant increase in royalty collection; complete supply chain traceability	• Formal licenses: 1,500 (from 400) • Smuggling cases down 70% • Increase Royalty revenue • 80% gemstones tracked	Provincial Mines Departments, Provincial Police, FIA, Customs, NADRA

#	Issues	Cost to Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action By
Policy & Regulatory Issues							
1.4	**Incomplete Geological Surveys and Data Gaps. Around 30-35% of Pakistan territory geologically mapped for gemstones.**	Potential reserves remain undiscovered; investors lack bankable data; missed revenue opportunities; unplanned extraction	• Align Gemstone geological exploration and mapping with the already approved schemes of geological exploration under federal PSDP	Investment not required as PSDP already has outlay for required mapping within the country	Complete geological mapping of gemstone zones; identified reserves increase 200-300%; attract $200M+ FDI; scientific extraction planning	Territory mapped: 80% by Y5; New deposits identified: 50+; FDI attracted: $200M; Database accessed: 10,000+ queries/year	Geological Survey of Pakistan, Provincial Mines Departments, Ministry of Planning
1.5	**Lack of Standardized Gemstone Grading and Certification; not a single international quality Gemstone testing lab in the country**	Loss of 60-80% value in potential forex earning through gemstone exports;	• Upgrade PGJDC labs to GIA affiliate status • Facilitate training of select gemologists at nearest GIA training facilities like Bangkok • Establish standard gemology labs in main cities.	• Top quality internationally certified gemology training programs cost $13-$15 thousand per gemologist. Can be met through assistance programs by donors for gemology through NPO under MoIP	• Internationally recognized certification leading to higher value added and increased demand for Pakistan origin gemstones. • 75-80% polished gemstones available in the market falling in internationally	• Top quality affiliation (like GIA) achieved. • GIA level certified gemologists in the country. • Quantum and value of certified gemstones making it formally to the international market	PGJDC, HEC (gemology programs), International partners (GIA, IGI), National Productivity Organization (NPO) under MoIP

#	Issues	Cost to Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action By
Policy & Regulatory Issues							
		Loss of 60-80% value in potential forex earning through gemstone exports;			certified category • Higher exports (quantity plus value added) of gemstones		
1.6	**Environmental issues like hazardous chemical use in informal refineries and lack of safety for workers**	• Significant health and environmental costs. • Environmental degradation. • Long-term health liability and worker deaths. • Difficulty in accessing international markets to violations of international safety standards.	• Mandate Environmental Impact Assessments for all refineries and phase out dangerous material (like mercury) use completely. • Implement required safety standards • GIS info of refineries • Ensure coverage of mine workers under public sector safety net programs	• Minimal cost, if any. Would mainly require coordination with the local/district administration in terms of identifying informal refineries and enforcing environmental and safety standards	• Toxic chemical/material use eliminated. • Significant reduction in occupational illnesses and accidents. • Environmental compliance achieved.	• Mercury-free operations. • Worker illnesses due to mining and refining. • EIA compliance and waste treatment.	• Environmental Protection Agencies (Federal & Provincial). • MoIP • Labour Departments at federal and provincial level.

#	Issues	Cost to Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action By
Policy & Regulatory Issues							
			(like BISP, EOBI)				
Access to Finance							
2.1	**Limited Access to Export Finance as well as SME development in Gems and Jewelry sector**	• Shortage of working capital for business expansion and other business-related capacities (like newer machines) • Low chances of export orders as well as financing due to informality	• Schemes like SBP mandated Export Refinance Schemes for the sector • Making credit finance easier through coordination with PACRA • Inventory financing against hallmarked stock	Investment not required	• Working capital constraints significantly reduced • Higher number of informal establishments getting access to working capital and investment finance	• Number of informal establishments converting to formal establishments • Quantum of credit going to this sector for business	• SBP • SMEDA • PACRA
Technology Adoption							
3.1	**Use of old machines and methods that do not add value to finished products and limits access**	• Annual value loss through export of rough stones, with others like China, Thailand and India capturing	• Impart training/make access to training in new methods easier through already existing channels (like	• Training, upgrading and new lab establishment costs can be covered under the already existing cooperation/co	• Higher number of refining and testing facilities that are close to international standards (if	• Older machines replaced • Facilities like labs and refineries upgraded	MoIP, PGJDC, NAVTTC, Provincial TEVTAs

#	Issues	Cost to Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action By
Technology Adoption							
		value addition advantage • Loss of business expansion and job creation at home	NPO) plus other initiatives, like Reko Deq investment • Make it easier to access and import quality machinery • Upgrade existing small-scale refineries to bring it as close to international standard as possible • Establish 2 LBMA-standard gold refineries (400-800 tonnes annual capacity each)	ordination schemes as well as the ones planned (as in the case of Reko Deq, whereby a substantial investment is being planned to establish gold and copper related facilities (testing, refining, etc.)	not exactly of that standard) • Increased FDI in the Gemstone and Jewelry sector • Substantial increase in value added due to upgraded facilities	• FDI coming into the sector • The value of goods sold in international market	

#	Issues	Cost to Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action By
Human Resource Issues							
4.1	**Shortage of Trained Gemologists offering internationally acceptable certificates for Gemstones and Jewelry**	• Limited access to international markets since domestic gemological reports are not considered valuable at international level • Prohibitive cost (in dollars) of testing Gemstones in international level labs	• A complete analysis of geology departments at universities, determining the needs for training and upgrading facilities to international standards • TEVTA or NAVTCC upgrading their training to impart quality gemology training	• Cost of training gemologists mentioned above. This can be covered under NPOs trainings that are financed by donors, or through other scholarship avenues (like HEC)	• Higher Number of trained gemologists at universities whose reports are internationally acceptable • More exports of domestically certified Gems and Jewelry	• Number of international level gemologists at universities and in private sector • Number of international quality labs issuing certificates acceptable in global markets • Quantum of exports of domestically certified gemstones and jewelry	HEC, Geology departments in universities across the country, PGJDC, MoIP, NAVTCC, TEVTA
Market Access and Development							
5.1	**Narrow Export Market Concentration**	• Exposure to single-market shocks. • Missed opportunities in Gulf, China, UK markets	• Expansion into new markets via targeted programs • Frequent participation in international	• Ministry of Commerce already has arrangements for road shows and international	• Increased and frequent presence of Pakistan Gemstone and Jewelry brands in	• Number of major Gemstone and Jewelry exhibitions attended by Pakistani	TDAP, Ministry of Commerce, Trade Associations, Embassies/Trade Attaches

#	Issues	Cost to Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action By
Market Access and Development							
		• Limited pool of buyers dictating terms	trade and gemstone fairs like the one in Las Vegas	participation	international fairs and exhibitions	• Number of orders and transaction realized during those exhibitions	
Tax Issues							
6.1	**Prohibitive Tax Structure on Commercial Gold Imports plus adverse FBR enforcement Targeting**	• Large scale gold smuggling places formal gold, gemstone and jewelry dealers at a disadvantage • Loss of revenues from gold smuggling	• Revise the tax and incentive structure to incentivize formality, like creating zero-rated gold import regime for registered jewelry manufacturers /exporters • Establish gold import through nominated banks • Crackdown against smuggled gold	• Simple change of rules required in terms of taxation	• Higher quantum of legal gold imports • Reduction in smuggling by 60% • formal sector expansion • Higher tax collection	• Legal gold imports • Smuggling incidents • FBR collections	Ministry of Finance, FBR, SBP, Ministry of Commerce

Investment Summary

Year-wise Investment Summary *(PKR Billion)*

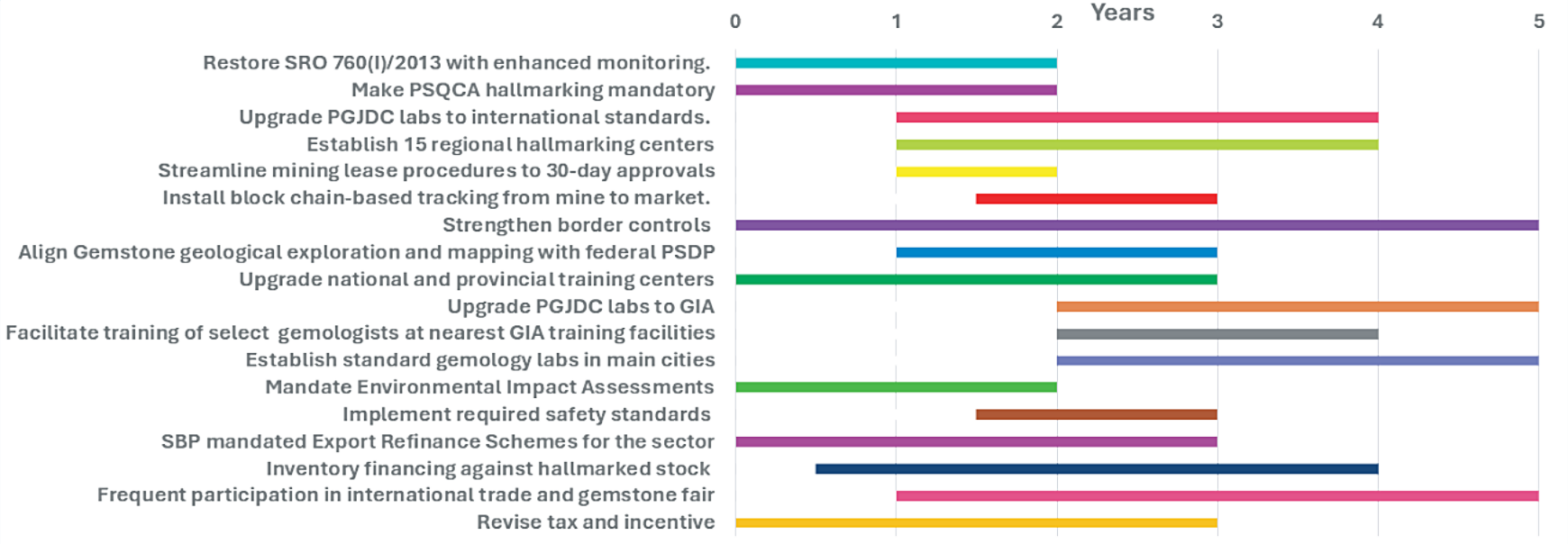
Category	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Policy & Regulatory Issues						**0.25**
1.3 Illegal Mining and Smuggling Networks due to weak enforcement; porous borders; complex bureaucratic licensing; high royalty rates incentivize informal operations; lack of resources in provincial departments.	0.03	0.05	0.05	0.05	0.08	0.25
Access to Finance						**-**
Human Resource Issues						**-**
Technology Adoption						**-**
Market Access and Development						**-**
Tax Structure						**-**
Total	**0.03**	**0.05**	**0.05**	**0.05**	**0.08**	**0.25**

**Proposed interventions based investment estimates*

Investment Multiplier

Multiplier impact of investment in Pakistan differs by different studies. Majority of studies have been done in context of PSDPs impact since it tends to be the largest portion of investment on aggregate (there is little in terms of estimates of private investment multiplier). However, there is no unanimity in terms of the size of multiplier. Almost all studies put it below 1, b/w 0.5 and 1. We will use 0.6 as the multiplier of investment based on these studies. Hence, the investment multiplier for this sector, Gems & Jewelry is PKR 150 million.

Year-wise Interventions in Gems & Jewelry Sector



Conclusion

Pakistan's gems and jewelry sector is among the most striking examples of unrealized potential in the export economy. With world-class reserves, including 70 million carats of emeralds and 200 million carats of rubies, yet exports of only $29 million and a GDP contribution of 0.07%, the gap between endowment and performance is stark.

The structural constraints are clear: 80% manual production, 60–70% value lost through raw gemstone exports, widespread informality, weak certification infrastructure, and disrupted trade policy collectively suppress competitiveness and state revenues.

Against a global market of $377–417 billion, even marginal improvements in domestic value addition and market positioning hold transformative potential. The reform agenda is actionable, near-term fiscal and trade fixes combined with longer-term investments in certification, technology, and sustainable mining offer a credible pathway to repositioning this sector as a meaningful contributor to Pakistan's export growth and employment.

LEATHER

Key Statistics

Current Performance (FY25):

- **Leather Exports:** $845.6 million (-4.1% YoY decline in FY24)
- **8M FY25 Performance:** $613.5 million (+7.6% YoY growth)
- **GDP Contribution:** 2.67%
- **Market Size:** PKR 285 (+17.3% YoY in FY24)

Global Context & Rankings:

- **Pakistan Global Rankings:** 5th in leather apparel exports (8.6% global share), 5th in tanned leather exports (6.9% global share)
- **Historic Peak:** $1.275 exports (FY 2013-14)
- **Current Target:** $2 exports by 2030 (URAAN Pakistan Plan)

Export Performance Breakdown (FY24):

- **Leather Apparel/Accessories:** $545.9M (66.4% of total exports)
- **Leather Footwear:** $162.1M (19.7% of total exports)
- **Tanned Leather:** $137.6M (16.8% of total exports)
- **Other Leather Products:** Balance

Industry Structure:

- **Total Tanneries:** ~800 tanneries nationwide
- **Listed Companies:** 6 companies on Pakistan Stock Exchange
- **Major Clusters:** Sialkot, Karachi, Lahore, Kasur
- **Core Segments:** Finished Leather, Apparel/Clothing, Gloves, Footwear, Leather Goods
- **LSM Weight:** 1.2% in Quantum Index of Manufacturing (QIM)

Production Capacity:

- **Upper Leather:** 13.3 million sq. ft. (-3.0% YoY)
- **Leather Footwear:** 35.2 million pairs (+10.0% YoY)
- **Sole Leather:** 189,000 sq. meters (-1.6% YoY)
- **Export Share:** 61.2% of total footwear production exported

Strategic Importance

The leather sector holds a strategic position in Pakistan's export economy, combining a strong natural resource base with an established global market presence. As one of the world's leading livestock producers, Pakistan benefits from a consistent and cost-competitive supply of raw hides, supporting a complete value chain – from tanning and finishing to garments, footwear, gloves, and leather goods. Established manufacturing clusters in Sialkot, Karachi, Lahore, and Kasur further strengthen its industrial base, making the sector a high-potential candidate for targeted policy intervention to unlock latent export growth.

The sector contributes 2.67% to GDP, holds a 1.2% weight in the Quantum Index of Manufacturing (QIM), and recorded a domestic market size of PKR 285 billion in FY24, growing by 17.3% year-on-year. It supports around 800 tanneries and sustains large-scale employment across multiple value chain segments. Production capacity includes 13.3 million square feet of upper leather, 35.2 million pairs of footwear, and 189,000 square meters of sole leather, though utilization remains suboptimal at 70% against a potential 85%.

Despite ranking 5th globally in leather apparel exports (8.6% share) and tanned leather exports (6.9% share), the sector faces declining performance. Exports have fallen from a peak of $1.275 billion in FY2013–14 to $845.6 million in FY24, indicating competitiveness challenges and missed market opportunities. Export composition remains concentrated in leather apparel and accessories (66.4%), followed by footwear (19.7%) and tanned leather (16.8%).

Key Challenges

- **Fragmented Regulatory Framework:** Absence of a Central Leather Authority and overlapping institutional mandates create administrative inefficiencies, costing $10–20 million annually and causing delays in processes such as FASTER refunds (3–6 months), constraining working capital.
- **Environmental Compliance & Certification Gaps:** Around 90% of tanneries lack effluent treatment plants, limiting access to Leather Working Group (LWG) certification and resulting in $80–120 million in lost premium export revenue.
- **High Input Costs & Tariff Burden:** The 2% Additional Customs Duty (ACD) on wet blue hides increases production costs by 8–12%, reducing price competitiveness in international markets.
- **Complex Taxation & Compliance Burden:** The Final Tax Regime (FTR), combined with fragmented sales tax, income tax, and DDT refund mechanisms, creates disproportionate compliance challenges, particularly for smaller firms.
- **Outdated Technology & Limited Value Addition:** Use of obsolete machinery restricts product upgrading, innovation, and higher value-added production.
- **Infrastructure & Logistics Constraints:** Poor logistics connectivity, along with inadequate cold chain and processing facilities, increases costs and limits scalability.
- **Low Digital Integration:** Limited adoption of digital tools and B2B platforms reduces access to market intelligence and restricts integration into global procurement networks.
- **Untapped Export Market Potential:** Structural and competitiveness gaps have left an estimated $200–300 million export potential in regions such as Russia, Eastern Europe, and Central Asia largely unexplored.

Reform Proposals

Long Term

- **Institutional Reform – Central Leather Authority:** Establish a dedicated Central Leather Authority to consolidate all leather-related regulatory and policy functions currently fragmented across multiple agencies, reducing compliance burden and providing unified governance for the sector.
- **Market Access – Trade Agreements:** Negotiate comprehensive FTAs and Economic Partnership Agreements with Central Asian and Eastern European markets, alongside establishing reliable banking channels for Russia, Eastern Europe, and Central Asia to remove payment settlement barriers.
- **Environmental Compliance – Green Manufacturing:** Anchor environmental reform in a comprehensive LWG certification facilitation centre, complemented by tiered tax incentives for green leather manufacturing to unlock the 25–30% price premium offered by international buyers.
- **Infrastructure & Technology Upgrading:** Develop collective effluent treatment systems and dedicated leather industrial parks, driving advanced technology adoption across the value chain to enhance productivity and international competitiveness.
- **Supply Chain Digitization:** Introduce digital approval systems across all leather-related permits, certifications, and tax filings to improve processing speed, reduce cost of compliance, and increase transparency.

Short Term

- **Fiscal Relief – FTR & Refund Mechanism:** Restore the 1% Final Tax Rate (FTR) for leather exports and implement an automated 15-day FASTER refund mechanism for sales tax, income tax, and DDT claims — collectively reducing production costs by 8–12% and restoring price competitiveness with zero capital outlay.
- **Trade Facilitation – Customs Duty Removal:** Eliminate the 2% Additional Customs Duty on wet blue hides (H.S. Codes 4104 and 4107) to directly lower input costs and stimulate domestic value addition.
- **Governance – Central Leather Authority Operationalization:** Operationalize the Central Leather Authority in its initial setup phase, requiring no capital investment while delivering rapid regulatory consolidation and signaling institutional commitment to the sector.
- **Environmental Certification – LWG Compliance:** Establish the LWG certification facilitation centre and roll out collective effluent treatment systems to meet international buyer requirements and enable premium market access.
- **Market Access – Banking Channels & FTA Negotiations:** Establish reliable payment and banking channels for Russia, Eastern Europe, and Central Asia, and initiate formal FTA negotiations with priority markets to open new export corridors.

Analytical Framework

The Leather sector encompasses sub-sectors such as tanning & finishing, leather garments, footwear manufacturing, gloves production, and leather goods, all of which are addressed collectively within this unified framework.

#	Issues	Cause	Cost to Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action By
Policy & Regulatory Issues								
1.1	**Tax Policy and Refund System Crisis**	• Final Tax Regime (FTR) creating severe cash flow constraints • FASTER refund system ineffective with processing delays of 3-6 months	• $50-70 million annually in delayed refunds affecting working capital • Capacity utilization down to 70% from potential 85%	• Restore 1% FTR system for leather exports • Implement automated 15-day FASTER refund mechanism • Streamline Sales Tax, Income Tax, and DDR refund processes	No investment required	• 15-20% increase in production capacity utilization • 25% reduction in operational compliance costs • Enhanced export competitiveness	• Refund processing time: 15 days (from 3-6 months) • Working capital ratio improvement: 25% • Production capacity utilization: 85% (from 70%)	• Federal Board of Revenue (FBR) • Ministry of Finance • Provincial Revenue Authorities
1.2	**Regulatory Fragmentation and Bureaucratic Inefficiencies**	• Multiple government agencies with overlapping jurisdictions • No Central Leather Authority for unified regulation and policy implementation	• $10-20 million annually in administrative expenses and delays • Reduced investor confidence due to regulatory complexity	• Arrange administrative setup in a manner that leather related issues are dealt by a dedicated team with fixed timelines for dispute/problem resolution	No investment required	• 50% reduction in approval processing time improving business efficiency • Enhanced investor confidence and increased FDI attraction	• Approval processing time reduction: 50% • Business registration efficiency improvement • Investment facilitation score enhancement	• Federal Government • Provincial Governments • Pakistan Tanners Association

#	Issues	Cause	Cost to Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action By
Policy & Regulatory Issues								
				• Implement digital approval systems for faster processing and transparency				
1.3	**Raw Material Import Duty Barriers**	• 2% Additional Custom Duty (ACD) imposed on cow/buffalo wet blue hides while sheep & goat imports remain exempted • Unnecessary CD & ACD on basic tanning chemicals and machinery	• $15-20 million additional annual costs from ACD on wet blue imports • 8-12% increase in production costs reducing price competitiveness	• Remove 2% ACD on basic raw materials (H.S. Code 4104, 4107) • Reduce unnecessary CD & ACD on tanning chemicals and machinery to regional competitive levels	• Changes in taxation structure	• Cost reduction of 8-12% in production enabling competitive pricing • Improved price competitiveness in international markets against regional competitors	• Input cost reduction: 10% within 12 months • Raw material cost as % of production: 45% (from 52%) • Market share recovery in key destinations like EU and USA	• Federal Board of Revenue (FBR) • Ministry of Commerce • Customs Department

#	Issues	Cause	Cost to Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action By
Access to Finance								
2.1	**Banking and Financial Access Constraints**	• SBP lien requirements at 3%, 6% & 9% creating irrational financing burdens on exporters • Stringent export proceeds realization rules restricting business operations	• $20-25 million annually in additional costs compared to regional competitors • 15-20% higher financing burden reducing export viability	• Remove irrational SBP lien conditions or relax to reasonable 1-2% levels • Extend export proceeds realization period to 180 days from current restrictive timelines	• Would require changes to SBP lien regulations	• 15-20% reduction in financing costs improving export margins • Improved liquidity for exporters enabling capacity expansion	• Financing cost reduction: 18% within 18 months • Export proceeds realization compliance: 95% • Working capital availability increase: 30%	• State Bank of Pakistan (SBP) • Commercial Banks • Ministry of Finance
2.2	**Infrastructure Investment Deficit**	• No bonded warehouse facilities for raw material storage, increasing inventory costs • Limited industrial park development in tier-2/3 cities constraining sector expansion	• $25-35 million annually in additional logistics and storage costs • Higher inventory carrying costs and import financing requirements affecting working capital	• Establish comprehensive bonded warehouse system for wet blue and raw material imports • Develop leather-specific industrial parks in major clusters with modern facilities	• Bonded warehousing and other such storage infrastructure do require investment. However, the investment cost is unclear as there is no consensus in industry upon the requirement. It will require	• 30% reduction in inventory carrying costs improving working capital efficiency • Enhanced scalability for leather manufacturing and value-addition	• Inventory carrying cost reduction: 30% • Supply chain efficiency metrics improvement • Infrastructure utilization rates in clusters	• Federal Board of Revenue (FBR) • Ministry of Commerce • Private Sector Investors

#	Issues	Cause	Cost to Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action By
Access to Finance								
					a cost survey and determination of investment required at government end.			
Technology Adoption								
3.1	**Environmental Compliance and LWG Certification Gap**	• Lack of individual effluent treatment plants in 90% of tanneries preventing LWG certification • Environmental compliance infrastructure seriously lacking across 800+ tanneries	• $80-120 million annual opportunity loss from inability to access premium markets • 25-30% higher prices unavailable due to certification gaps	• Establish comprehensive environmental compliance facilitation center	• No investment required	• Access to premium international brands paying 25-30% higher prices • Enhanced global competitiveness and market positioning	• LWG certified tanneries: 60% (from <10%) • Premium market exports share: 40% • Average export price increase: 20%	• Export Development Fund (EDF) • Ministry of Climate Change • Pakistan Environmental Protection Agency

#	Issues	Cause	Cost to Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action By
3.2	**Production Technology Modernization**	• Outdated production technology limiting value-addition capabilities • Limited mechanization in processing facilities affecting productivity	• Substandard production affecting export reputation and premium market access • Capacity utilization constraints due to technology limitations	• Launch green leather manufacturing incentive scheme with tax benefits • Making existing technology commercialization centers for modernization more effective	• No investment required	• Attraction of sustainability-focused foreign investment and partnerships • •Compliance with stringent international environmental standards	• Environmental compliance score improvement by 80% • Attraction of sustainability-focused foreign investment and partnerships	• Pakistan Tanners Association • Ministry of Climate Change • Pakistan Environmental Protection Agency
3.3	**Physical and Digital Supply Chain Integration**	• Poor logistics connectivity in leather manufacturing clusters increasing transportation costs • Supply chain inefficiencies affecting competitiveness against regional players	• Poor infrastructure reducing scalability and expansion potential • Value-addition constraints limiting higher-value segments	• Implement supply chain digitization initiatives for efficiency improvement • Create modern storage and processing facilities with cold chain capabilities	• Year 1: PKR 2-5B (Digital Systems for automation) • Year 2: PKR 3-5B (Logistics Infrastructure for connectivity) • Year 3: PKR 1-2B (Processing infrastructure enhancement)	• Enhanced scalability for leather manufacturing and value-addition • Better integration with global supply chains and logistics networks	• Logistics cost as % of production reduction • Supply chain efficiency and reduced lead times • Better integration with global supply chains	• Provincial Development Authorities • Private Sector Investors • Pakistan Tanners Association

#	Issues	Cause	Cost to Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action By
Human Resource Issues								
4.1	**Skills Gap and Workforce Development Crisis**	• University and industry disconnect • Critical shortage of skilled technicians with 2-5 years experience in modern leather processing • Only 6,400 professionals trained in advanced technologies during FY 2025 - far below industry needs	• Loss of export earnings and value-addition due to low productivity, quality gaps, and inability to meet international compliance standards • Higher production costs and missed employment opportunities from inefficient processes, high wastage, and underutilized industrial capacity	• Upgrade National Institutes of Leather Technology (Karachi, Gujranwala, Kasur) with modern equipment • Launch industry-specific training programs via NAVTTC with international standards	• PKR 8-12B (Institute Upgrades & Equipment) • PKR 2-3B (Faculty Development)	• 20,000 industry-ready graduates annually meeting sector demand • 79% job placement rate achievement within 6 months of training	• Skilled workforce increase: 40% within 3 years • Graduate employment rate within 6 months: 75% • Industry satisfaction scores with graduate skills: 80%	• National Vocational & Technical Training Commission (NAVTTC)

#	Issues	Cause	Cost to Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action By
Market Access & Development								
5.1	**International Market Access Barriers**	• Limited access to emerging high-potential markets (Russia, Eastern Europe, Central Asia) due to banking restrictions • Absence of reliable banking channels with key markets constraining trade growth	• $50-75 million annually from inaccessible emerging markets • $200-300 million market potential unexplored in Russia, Eastern Europe	• Establish reliable banking channels with regional countries emerging markets through diplomatic initiatives • Negotiate comprehensive FTAs/EPAs with Central Asian, Eastern European countries	• PKR 2B (Banking Channel Establishment for infrastructure) • Utilize trade officials posted in Pakistani embassies	• Access to $200-300 million additional market potential through geographic diversification • Reduced dependency on traditional markets improving risk management	• New market exports share: 15-20% of total • Export destination diversification index improvement • Banking channel utilization rates in new markets	• Ministry of Commerce • Trade Development Authority of Pakistan (TDAP) • Pakistani Embassies Abroad
Tax Structure								
6.1	**Import Duty Rationalization Structure**	• Inconsistent duty structure creating competitive disadvantage against regional competitors • Raw material costs constitute	• Import bill burden of $100-150 million annual import costs for basic raw materials affecting forex reserves	• Harmonize duty structure across all leather raw materials • Create duty drawback mechanism for export-oriented tanneries	• No investment required	• Improved price competitiveness in international markets against regional competitors • Reduced import dependency	• Raw material cost as % of production: 45% (from 52%) • Market share recovery in key destinations like EU and USA	• Federal Board of Revenue (FBR) • Ministry of Commerce • Pakistan Tanners Association

#	Issues	Cause	Cost to Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action By
Tax Structure								
		63.3% of total COGS burden				through improved domestic competitiveness	• Improved price competitiveness	
6.2	**Value-Added Tax Structure Optimization**	• Domestic tax burden on export goods undermining profitability and growth potential • Multiple tax requirements creating administrative burden	• Export competitiveness severely reduced against regional competitors maintaining similar incentives	• A tax structure that preferably has lower rates for higher value addition, incentivizing value-added production	• No investment required	• Accelerated growth trajectory toward $2B export target by 2030 • Increased private investment in export infrastructure and technology upgrades	• Exporter margin improvement : 12-15% • Private investment in export infrastructure increase by 25% • Accelerated growth trajectory toward $2B target	• Ministry of Commerce • Export Development Fund (EDF) • Pakistan Tanners Association

Investment Summary

Investment Summary (PKR Billion)

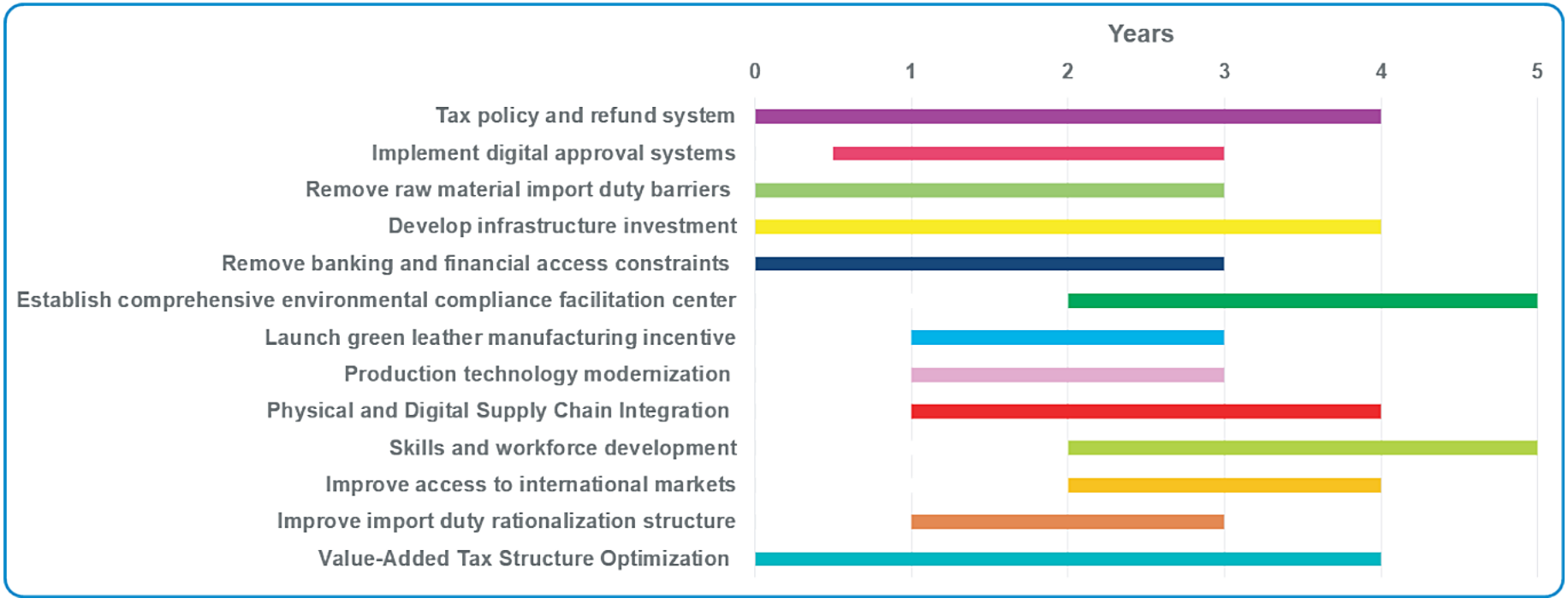
Category	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Policy & Regulatory Issues						**-**
Access to Finance						**-**
Technology Adoption						**12**
3.3 Physical and Digital Supply Chain Integration	2	2	2	3	3	12
Human Resource						**15**
4.1 Skills Gap and Workforce Development Crisis	2	2	2	3	5	15
Market Access & Development						**2**
5.1 International Market Access Barriers	0.25	0.25	0.5	0.5	0.5	2
Tax Structure						**-**
Total	**4.25**	**4.25**	**4.5**	**6.5**	**8.5**	**29**

**Proposed interventions based investment estimates*

Investment Multiplier

Multiplier impact of investment in Pakistan differs by different studies. Majority of studies have been done in context of PSDPs impact since it tends to be the largest portion of investment on aggregate (there is little in terms of estimates of private investment multiplier). However, there is no unanimity in terms of the size of multiplier. Almost all studies put it below 1, b/w 0.5 and 1. We will use 0.6 as the multiplier of investment based on these studies. Hence, the investment multiplier for this sector, Leather is PKR 17.4 Billion.

Year-wise Interventions in the Leather Sector



Conclusion

Pakistan's leather sector presents a compelling case of underperformance relative to structural advantage. Despite ranking 5th globally in leather apparel exports and holding a complete value chain from raw hides to finished goods, exports have declined from $1.275 billion in FY2014 to $845.6 million in FY24 – a trajectory that reflects deepening competitiveness challenges rather than a lack of potential.

The constraints are well-defined: fragmented governance, environmental non-compliance, high input costs, and limited digital integration collectively suppress value addition and restrict access to premium markets. With 90% of tanneries lacking effluent treatment and an estimated $200–300 million in unexplored export potential in Russia, Eastern Europe, and Central Asia, the cost of inaction is measurable.

The reform agenda is actionable and largely low-cost in its initial phases – fiscal relief, customs duty removal, and Central Leather Authority operationalization require no significant capital outlay yet deliver immediate impact. Anchored by longer-term investments in green manufacturing, technology upgrading, and market diversification, these measures offer a credible pathway to reversing the export decline and repositioning Pakistan's leather sector as a globally competitive, high-value industry.

TOURISM

Key Statistics

Current Performance (FY25):

- **GDP Contribution:** <1% of GDP (PKR 800-1,000B annually) - significantly below potential of 3-5%
- **Tourist Arrivals:** ~1.3 million international visitors annually vs potential 8-10 million
- **Tourism Receipts:** ~$400-500M annually vs regional potential of $3-5B
- **Employment:** ~2.5 million direct and indirect jobs vs potential 8-10 million
- **Hotel Occupancy:** Average 40-50% vs international standards of 70-80%
- **Formal Sector:** <30% of tourism operators formally registered and compliant

Global Context & Rankings:

- **Travel & Tourism Index:** Ranked 101st globally in WTTC Development Index 2024
- **Regional Comparison:** Significantly underperforming compared to Turkey, Thailand, and Malaysia
- **Visa Accessibility:** Limited e-visa coverage restricting tourist access
- **Security Perception:** Past conflict reputation continues to impact tourist confidence
- **Digital Adoption:** <15% of tourism services digitally integrated

Infrastructure & Tourism System:

- **Accommodation:** Limited international standard hotels outside major cities
- **Airports:** Insufficient international connectivity from key tourism markets
- **Heritage Sites:** UNESCO sites underutilized due to poor visitor facilities
- **Waste Management:** Serious environmental degradation at popular destinations
- **Safety Infrastructure:** Limited tourism police and emergency response systems

Innovation & Technology Infrastructure:

- **Digital Systems:** <10% of tourism operators use digital booking and management systems
- **Data Analytics:** No integrated national tourism data platform for evidence-based decisions
- **Marketing Technology:** Limited use of social media and digital marketing strategies
- **Mobile Applications:** Absence of comprehensive tourism mobile apps and digital guides
- **Climate Resilience:** Vulnerable tourism infrastructure to climate change impacts

Strategic Importance

Tourism in Pakistan represents an underperforming yet critical sector of the economy given its potential in developing local economies and generating jobs. Despite possessing significant natural, cultural, religious, and geographic tourism assets, the sector currently contributes less than 1% of GDP (PKR 800–1,000 billion annually) – substantially below its estimated potential of 3–5% of GDP. International tourist arrivals remain limited at approximately 1.3 million annually, compared to a realistic potential of 8–10 million visitors, while annual tourism receipts of $400–500 million fall far short of the estimated $3–5 billion achievable within the regional context.

The employment footprint of tourism further underscores its strategic importance. The sector currently supports approximately 2.5 million direct and indirect jobs, yet its employment generation capacity is estimated at 8–10 million jobs under improved regulatory, infrastructural, and marketing conditions. With average hotel occupancy rates at 40–50%[113], compared to international benchmarks of 70–80%, existing assets remain underutilized, indicating substantial idle capacity.

Tourism also carries significant regional development implications. Its value chain links transportation, hospitality, handicrafts, SMEs, and local services, creating multiplier effects across rural and lagging regions. However, Pakistan ranks 101st in the WTTC Travel & Tourism Development Index 2024[114], reflecting weak competitiveness relative to regional peers such as Turkey, Thailand, and Malaysia. Limited e-visa coverage, persistent security perceptions, weak digital adoption (less than 15% service integration), and inadequate international connectivity continue to constrain its integration into regional and global tourism markets.

Given its potential to generate foreign exchange, employment, and inclusive regional growth, tourism warrants prioritization within the national economic strategy.

[113] *https://iips.com.pk/hotel-industry-of-pakistan-challenges-and-way-forward*

[114] *https://www.brecorder.com/news/40305654/pakistan-ranked-101st-out-of-119-in-wefs-travel-and-tourism-development-index*

Key Challenges

- **Low Formalization & Revenue Leakage:** Only 30% of tourism operators are formally registered, resulting in revenue leakage, weak regulatory oversight, and inconsistent service quality standards across the sector.
- **Weak Digital Integration:** Fewer than 15% of services are digitally connected and less than 10% of operators use digital booking or management systems, limiting operational efficiency and market reach.
- **Absence of National Tourism Data Platform:** No integrated national data system exists for tourism planning; outside Khyber Pakhtunkhwa, provinces lack unified dashboards for operator registration and tourist tracking, weakening evidence-based coordination and safety monitoring.
- **Environmental Degradation:** High-traffic destinations including Swat, Murree, and Hunza face acute ecological stress — plastic waste accumulation, habitat degradation, and pollution — compounded by weak enforcement of environmental regulations and inadequate waste management systems.
- **Climate Vulnerability:** The sector lacks structured climate finance integration, missing opportunities to leverage international green funding for resilient tourism infrastructure, while climate risks continue to threaten physical assets and destination viability.
- **Land-Use & Zoning Weaknesses:** Unplanned construction, encroachments, and unclear property rights — particularly in northern regions — discourage private investment and impede sustainable destination development.
- **Taxation & Regulatory Fragmentation:** Multiple and inconsistent tax structures increase compliance burdens, discourage formalization, and reflect weak federal–provincial coordination, contributing to approval delays and policy inefficiencies.
- **Limited Access to Finance: High collateral requirements and elevated interest rates restrict entrepreneurship and prevent tourism SMEs from investing in infrastructure, service upgrades, and digital systems.**
- **Seasonal & Regional Concentration:** Tourism demand is heavily concentrated in the northern belt during peak summer months; regions such as Sindh, Balochistan, and South Punjab remain underdeveloped despite significant cultural and coastal assets.
- **Weak Branding & Marketing:** The absence of coordinated domestic and international marketing strategies, combined with limited destination branding, suppresses visitor growth and constrains Pakistan's global tourism profile.

Reform Proposals

Long Term

- **National Tourism Governance Framework:** Establish a unified national tourism authority to coordinate policy across federal and provincial governments, resolve regulatory fragmentation, and provide a single institutional mandate for sector development.
- **Land-Use & Zoning Reform:** Develop and enforce zoning laws and environmental screening requirements for all tourism projects, with digitization of land records — particularly in provinces where records remain non-digital — to strengthen investor confidence and reduce property disputes.
- **Environmental Governance & Climate Resilience:** Integrate climate resilience into tourism planning through resilient design codes, disaster insurance mechanisms, and climate-proof infrastructure investments supported by donor and international green financing.
- **Destination Diversification:** Develop tourism assets in underserved regions — Sindh, Balochistan, and South Punjab — to reduce seasonal and geographic concentration, and unlock the cultural, heritage, and coastal potential of these areas.
- **Branding & Marketing Strategy:** Design and implement a coordinated domestic and international tourism marketing strategy, supported by consistent destination branding, to grow visitor numbers and elevate Pakistan's global tourism profile.
- **Industry–Academia & Research Linkages:** Build structured collaboration between universities, research institutions, and the tourism sector to improve data systems, support evidence-based policymaking, and drive innovation in tourism products and services.

Short Term

- **Operator Formalization & Licensing:** Launch digital registration and licensing of tourism operators, supported by compliance incentives such as lower tax rates, to reduce revenue leakage, improve service standards, and strengthen regulatory oversight.
- **National Tourism Dashboard:** Develop a unified national tourism data platform integrating operator registration, tourist tracking, and destination monitoring to enable evidence-based planning, safety coordination, and inter-provincial oversight.
- **Tax Rationalization:** Simplify and harmonize tourism-related tax structures across federal and provincial jurisdictions to reduce compliance burdens, encourage formalization, and remove barriers to private sector entry.
- **Environmental Enforcement:** Introduce stricter anti-littering enforcement, phased removal of single-use plastic products, and district-level waste management systems at high-traffic destinations including Swat, Murree, and Hunza.
- **Access to Finance:** Operationalize concessional credit lines and guarantee schemes for tourism SMEs to overcome collateral and interest rate barriers, enabling investment in infrastructure, digital systems, and service quality upgrades.
- **Tourism–Climate Finance Desk:** Establish a dedicated tourism–climate finance desk to mobilize international climate funds and donor resources for resilient infrastructure investments across vulnerable destinations.
- **Clear Property Rights Protections:** Fast-track digitization of land records and enforce clear property rights frameworks to unlock private investment, particularly in northern regions where land tenure uncertainty has historically deterred development.

Analytical Framework

The Tourism sector encompasses complex visa & entry regime, limited private sector engagement in tourism development, security perception & limited tourist safety services, lack of branding & marketing with complete value chain integration potential.

#	Issues	Cost To Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action By
Policy & Regulatory Issues							
1.1	**Unregulated Sector & Informal Economy**	• A substantial portion of Pakistan's tourism sector remains informal, with many operators unregistered – resulting in revenue leakage, weak oversight, and poor service standards[115] • Except for KP, no province has a dashboard where information relating to travel arrangements and tracking are available in a single place	• Formalize operators through incentives • Digital registration, licensing & tax breaks • Create a unified dashboard where information is available about the tour operators, their facilities and tracking tourists	• 5-10 million rupees (PKR) for creating unified dashboard and central information sharing hubs	• Improved regulation, data, and quality standards • Information regarding tourism operators as well as tourist tracking on a single platform	• Number of registered operators • Compliance rate • Dashboard with tourism related information	PTDC, MoIT, Provincial Tourism Departments
1.2	**Environmental Degradation & Over-Tourism**	• Tourist spots like Swat, Murree, and Hunza is causing serious environmental degradation,	• Strict penalties for littering • Ensure garbage removal strategies, mirroring strategies like	• Mainly requires legislation to be enforced by district administration	• Lesser instances of scattered garbage and plastic waste	• Tourist satisfaction surveys regarding cleanliness • Prevalence of plastic products	EPA, MoCC, MoT, Provincial Env Depts

[115] *https://tdap.gov.pk/wp-content/uploads/2022/04/Updated_Research-Report-on-Tourism-converted.pdf*

#	Issues	Cost To Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action By
Policy & Regulatory Issues							
		including plastic waste and habitat loss • Increasing pollution and ecological strain in Pakistan's mountain areas	Punjab provincial government's work • Gradual removal of plastic products and bags from use		• Properly dumped garbage • Gradual phasing out of plastic bags and other environment harming products	• Garbage disposal facilities	
1.3	**Insufficient Climate Resilience in Tourism Development**	• Rising disaster losses, loss of tourist confidence and repeated rebuild costs	• Climate-proof infrastructure • Disaster insurance • Resilient design codes in tourism zones	• $50–100M (w/ donor support)	• Safer, climate-resilient tourism destinations	• # of resilient sites • Insurance uptake • Damage reduction %	NDMA, MoCC, NHA, MoT
1.4	**Weak Land-use and Zoning Regulation, and lack of property right impeding investment**	• Encroachments, unplanned construction, and poor waste management damage natural sites • No defined and enforceable property rights in tourist spots which impedes investment. For example, in GB,	• Develop enforceable zoning by laws and environmental screening for all tourism projects • District administration should ensure implementation of property rights that are	• District administration can easily leverage already existing records and digitize them • 150-175 million PKR for each province (where records are already not	• Preservation of scenic value and reduction in environmental damage • Enforcement of safety and environmental standards in terms of buildings and constriction • Digitized land record and	• Land-use compliance % • Protected area coverage • Digitization of land records	MoCC, Provincial Env Depts and Revenue authorities

#	Issues	Cost To Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action By
Policy & Regulatory Issues							
		outsiders cannot own a property by themselves. They have to form a JV with a local	clearly defined and enforceable • Provide investors protection against threats and intimidation	digitalized, like PLRA)[116]	enforcement of property rights		
1.5	**Cumbersome Taxation and Fee Structures**	• Multiple, inconsistent taxes across provinces lower competitiveness and discourage formalization	• Introduce harmonized national tourism tax framework and time-bound tax holidays for new ventures.	Only relevant legislation required	• Improved investor confidence and formalization of operators	• Tax compliance rate • # of registered businesses • Investor satisfaction index	FBR, BOI, MoF
1.6	**Inconsistent Provincial Policy Alignment**	• Fragmented provincial regulations lead to inefficiency and lack of coordination in tourism development	• Harmonize federal–provincial tourism frameworks through a National Tourism Council and standardized policy guidelines.	Only relevant legislation required	• Improved policy coherence and inter-provincial collaboration.	• # of aligned policies, reduction in approval delays	MoT, PTDC, Provincial TDCPs

[116] *Cost calculation based on CDAs approved project of digitalizing land records. Although costs may differ by localities, but these are the probable estimates. Source: 'CDA gets one step closer to digitalization of land record', DAWN, 4th January 2024*

#	Issues	Cost To Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action By
Access to Finance							
2.1	**Limited Credit Lines for SMEs**	• SMEs face collateral barriers and high interest rates, restricting tourism-related entrepreneurship.	• Establish concessional credit lines and guarantee schemes for tourism SMEs.	No investment required	Enhanced entrepreneurship and business growth in local tourism sectors.	• # of SME loans, repayment rate, business survival rate	SBP, MoF, BOI, Commercial Banks
2.2	**Absence of Climate Finance Integration**	• Missed opportunity to leverage international green funds for resilience.	• Establish a tourism–climate finance desk to mobilize GCF and donor funding.	No investment required	Climate-proofed tourism infrastructure.	• # of projects financed via GCF, damage reduction %	MoCC, NDMA, MoT
Technology Adoption							
3.1	**Lack of Data-Driven Tourism Management**	• Poor policy design and missed investment opportunities due to lack of real-time data	• Build National Tourism Data Platform • Integrate NADRA, telecom, hotel & transport data	Cost in terms of a unitary dashboard already mentioned above	• Evidence-based decisions • Targeted marketing and optimized services	Real-time tourist dashboards; # of data-sharing partners	PTDC, NADRA, PBS, Telcos, Hotels
3.2	**Weak ICT Infrastructure in Remote Areas**	• Limited internet coverage restricts digital tourism platforms in northern and coastal regions.	• Expand broadband infrastructure to major tourist routes through USF and private partnerships.	No investment required	• Expanded digital access and online bookings from remote areas.	• % internet coverage in tourism areas, # of digital bookings	MoIT, PTA, USF, Telcos

#	Issues	Cost To Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action By
Human Resource Issues							
4.1	**Security Perception & Limited Tourist Safety Services**	• ~$2B annual loss due to climate change issues[117] • Reputational issues from past conflicts, even though actual risks have reduced may impact tourism in Pakistan • Absence of localized early warnings • Safety concerns for women and foreign tourists reduce trust	• Launch tourism police units, multilingual helplines • Safety certification for tour operators	• Security related updates (like Tracking) are covered in the Dashboard. Establishing one would address this issue	• Safer tourist experience • Improved global reputation • Timely disaster response	• Tourist safety incidents • Satisfaction scores • Alerts issued • Gender-sensitive ratings	MoI, PTDC, NTC, NDMA, Women Dev Depts
4.2	**Seasonal & Regional Imbalance and the lack of new tourist spots**	• A significant majority of domestic tourism is concentrated in the northern belt (GB, KP) during	• Diversify destinations and make them accessible • Cultural circuits, desert safaris, coastal tourism, religious heritage zones	• The cost of developing new tourist attractions differ by respective areas. For e.g, an earlier Plan for developing Tourist	• Balanced year-round tourism • Job creation in lagging areas • Number of new tourist attractions	• Tourist footprint by region/season, especially in terms of new tourist sights	MoT, UNESCO, Provincial Depts, Private Tour Ops

[117] *Cost calculation based on CDAs approved project of digitalizing land records. Although costs may differ by localities, but these are the probable estimates. Source: 'CDA gets one step closer to digitalization of land record', DAWN, 4th January 2024*

#	Issues	Cost To Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action By
Human Resource Issues							
		peak summer months • Cultural, coastal, and heritage-rich regions like Sindh, Balochistan, and South Punjab remain underexplored • Government's own PR on tourism repeatedly highlight the same tourist sights	are some examples	destinations in KP put the average cost at Rs. 4.79 billion.[118] • Given that costs have gone up considerably, development of new destinations would at least cost between 10-15 (PKR) billion			
4.3	**Gender and Inclusivity Barriers**	• Limited participation of women and marginalized groups due to safety and social norms.	• Introduce gender-sensitive training, incentives for women-led tourism enterprises, and safe workplaces.	No investment required	Diverse and inclusive workforce contributing to innovation and equity.	% of women employees, # of women-led enterprises	MoWDD, MoT, Provincial Depts

[118] *https://www.dawn.com/news/1906379*

#	Issues	Cost To Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action By
Market Access and Development							
5.1	**Lack of Coordinated Branding, Marketing & Domestic Tourism Strategy**	• Pakistan ranked 101st in Travel & Tourism Development Index 2024 (WTTC) • Perception issues result in low international tourist share • Absence of domestic tourism promotion campaigns • Limited domestic holiday travel penetration • No strategy to increase domestic tourism GDP contribution • Lack of affordable/accessible domestic tourism products	• Global branding campaigns • Digital tourism platforms • Influencer collaborations	No investment required	• Improved global image • Increase in tourists • Higher tourism receipts	• Country perception index, inbound tourist count, social media engagement	MoFA, MoIB, MoT, PTDC

Investment Summary

Year-wise Investment Summary *(PKR Billion)*

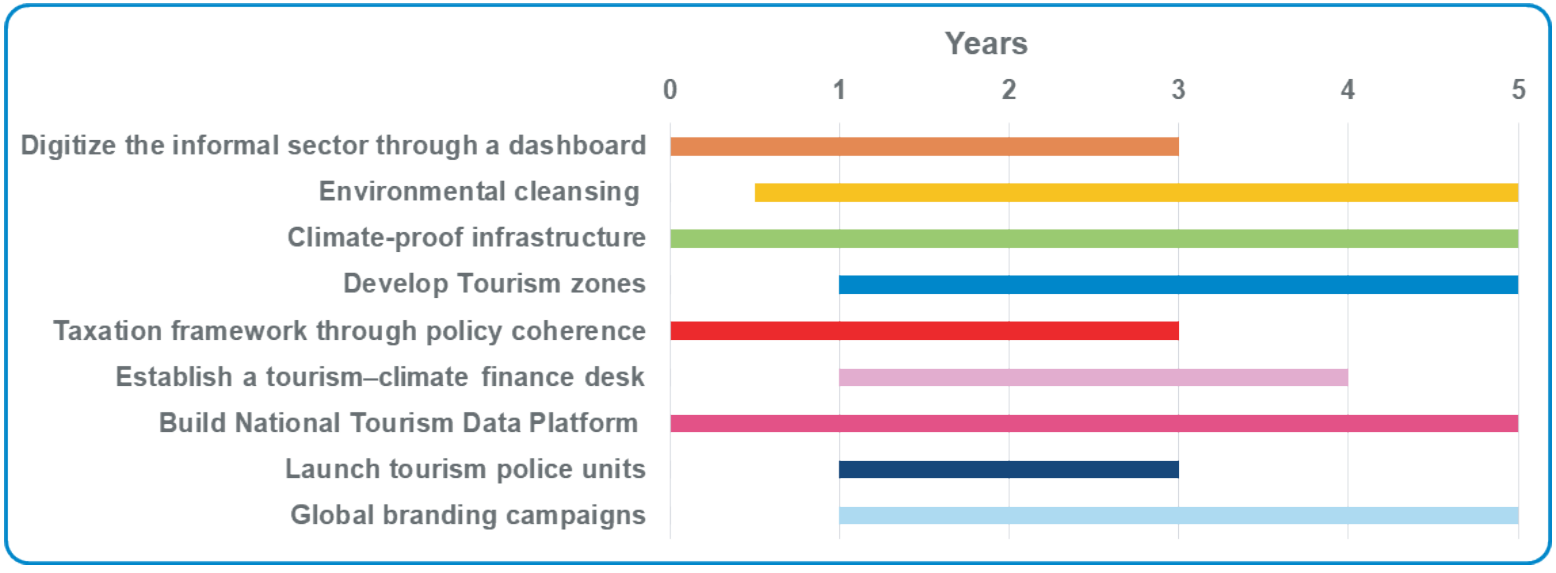
Category	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Policy & Regulatory Issues						**280.19**
1.1 Unregulated Sector & Informal Economy	0.001	0.002	0.002	0.0025	0.0025	0.01
1.3 Insufficient Climate Resilience in Tourism Development	30	50	80	25	95	280
1.4 Weak Land-use and Zoning Regulation, and lack of property rights impeding investment	0.015	0.02	0.03	0.05	0.06	0.175
Access to Finance						**-**
Technology Adoption						**-**
Human Resource Issues						**19.79**
4.1 Seasonal & Regional Imbalance and the lack of new tourist spots	5	5	3	3	3.79	19.79
Market Access and Development						**-**
Tax Structure						**-**
Total	35	55	83	28	98	**300**

**Proposed interventions based investment estimates*

Investment Multiplier

Multiplier impact of investment in Pakistan differs by different studies. Majority of studies have been done in context of PSDPs impact since it tends to be the largest portion of investment on aggregate (there is little in terms of estimates of private investment multiplier). However, there is no unanimity in terms of the size of multiplier. Almost all studies put it below 1, b/w 0.5 and 1. We will use 0.6 as the multiplier of investment based on these studies. Hence, the investment multiplier for this sector, Tourism, is PKR 180 billion.

Year-wise Interventions in Tourism Sector



Conclusion

Pakistan's tourism sector remains a significant underperformer relative to its natural, cultural, and geographic endowments — with GDP contribution below 1%, annual receipts of $400–500 million against an achievable $3–5 billion, and just 1.3 million annual arrivals against a realistic potential of 8–10 million.

The constraints are structural and mutually reinforcing: low formalization, regulatory fragmentation, weak digital adoption, and environmental degradation collectively suppress investment and demand. Closing this gap requires sequenced reforms — immediate action on formalization, taxation, and digital infrastructure, anchored by longer-term investments in governance, destination diversification, and climate resilience. With the right policy framework, tourism holds genuine potential to become a meaningful driver of foreign exchange, employment, and inclusive regional growth.

PART C

CROSS CUTTING SECTORS

The strategic prioritization of Human Resource Development and Climate Change reflects a recognition that Pakistan's long-term macroeconomic ambitions cannot be sustained without an equally deliberate investment in its people and its environment. Human Resource Development is the foundational multiplier across all other sectors — with over 60% of the population under 30 and 25 million children out of school, Pakistan's demographic dividend remains unrealized potential rather than productive output. Without a skilled, market-aligned workforce, every sectoral reform risk being undermined by a human capital deficit. Climate Change, meanwhile, has graduated from an environmental concern to an existential economic risk: with nearly 24% of GDP anchored in climate-sensitive agriculture, escalating extreme weather events — floods, glacial melt, heatwaves — directly erode the country's productive base, food security, and fiscal stability. Together, these sectors represent the twin preconditions for sustainable growth. One builds the human engine; the other protects the terrain on which that engine operates. Without addressing both in a structured, five-year framework, Pakistan's broader sectoral reforms risk being built on an increasingly fragile foundation.

CLIMATE CHANGE[119]

Key Statistics

Current Performance:

- **Climate Vulnerability:** Pakistan ranked 5th most vulnerable country to climate change globally
- **Infrastructure Damage:** $3.8B+ annual climate-related infrastructure damages from extreme weather events
- **Agricultural Losses:** 13.5% crop loss from extreme weather conditions annually
- **Energy Dependency:** $18B annual energy imports due to fossil fuel reliance
- **Climate Finance Gap:** <1% of required $70B international climate finance mobilized by 2025

Infrastructure & Climate System:

- **Disaster Preparedness:** Limited early warning systems and climate-resilient infrastructure
- **Urban Climate Risk:** $1.5B annual urban climate disaster costs from poor planning
- **Water Management:** Poor canal systems and irrigation efficiency leading to water stress
- **Forest Cover:** Declining Forest cover affecting carbon sequestration and ecosystem services
- **Glacial Melt:** Accelerating glacial retreat affecting water security and tourism

Global Context & Rankings:

- **Environmental Performance:** Pakistan ranked 179th on Environmental Performance Index
- **Climate Finance Access:** Only $221M accessed from Green Climate Fund vs $70B requirement
- **Carbon Market Potential:** Missing $2B+ annually from untapped carbon credit opportunities
- **Renewable Energy Share:** Stagnant at ~4.5% despite significant solar/wind potential
- **Green Tech Patents:** <0.05% of global clean-tech patent share despite 14% annual growth
- **Private Climate Investment:** Only ~0.5% of GDP in 2025, well below regional peers

[119] *Climate Change is a cross-cutting theme and will overlap with almost all industries, such as, Agriculture, Textile, Tourism, Investments, GESI.*

Strategic Importance

In Pakistan, the climate change sector has shifted from a purely environmental concern to a core pillar of national security and economic survival. It serves as a critical nexus for national resource security, where the strategic management of climate related risks is essential to safeguarding Pakistan's agrarian economy and long-term water sovereignty. The climate change sector in Pakistan is strategically important because the country is highly vulnerable to extreme weather events, glacial melt, floods, and heatwaves that directly threaten food security, water resources, and economic stability. Investing in climate resilience and green development strengthens Pakistan's national security, protects livelihoods, and supports sustainable economic growth while aligning with global commitments.

The macroeconomic imperative for Pakistan comes in the form of a domestic economy where nearly 24% of GDP and 40% of the labor force are anchored in climate-sensitive agriculture. Escalating climate anomalies during the 2024–25 fiscal period resulted in a 13.5% reduction in important crop production, significantly impacting national food security. Adverse climate outcomes, therefore, directly affect not just the sector but the livelihoods too. Similarly, substantial risk exists in case of Service sector industries, especially Tourism, a source of sustenance for a large number of labor force in tourist areas like Gilgit-Baltistan.

Key Challenges

- **High climate vulnerability due to climate change:** Despite producing less than 1% of the global carbon emissions, Pakistan remains among the countries most affected by climate change.
- **Insufficient institutional and governance capacity** to effectively address emerging climate challenges
- **Rising urban climate risks from outdated, poor-quality infrastructure:** ~$3.8B in infrastructure losses from 2022 floods due to poor standards.
- **Low climate-aligned investment ecosystem; weak private sector participation:** Private climate investment stands at just ~0.5% of GDP, costing Pakistan $1–2 billion annually in foregone green jobs and economic opportunity.
- **Pakistan lags in climate finance access and utilization:** Pakistan has mobilized less than 1% of the international finance required under its NDCs by 2030, with only ~$221 million accessed from the Green Climate Fund.
- **Threats to eco-tourism zones from glacial melt, floods, and deforestation:** Rising temperatures are expanding glacial lakes, heightening the risk of Glacial Lake Outburst Floods (GLOFs).

Reform Proposals

Long Term

- **Institutional & Governance Overhaul:** Enhance institutional and governance capacity for climate response. Align policies and resources with emerging climate risks.
- **Developing a Green Investment Ecosystem:** Develop Green Investment Guidelines and launch sovereign green bonds.
- **Climate-Resilient Urban Planning:** Urban green infrastructure, permeable roads, flood-resilient housing, early warning systems. Mandate climate-proofing of new public infrastructure, update codes for housing, roads, energy.
- **Landscape-Level Restoration:** Scale the Ten Billion Tree Tsunami into a permanent "Green Corridor" that links forest fragments, reducing the deforestation that currently exacerbates landslide risks.

Short Term

- **Early Warning & Eco-Tourism Protection:** Deploy Real-Time GLOF Monitoring Systems in high-risk northern zones to protect local communities and the $1B+ tourism potential.
- **Private Sector Incentives:** Introduce Green Tax Credits for businesses that switch to renewable energy or water-recycling tech to boost private climate investment.
- **Streamlining Climate Finance Access:** Simplify the accreditation process for local NGOs and private firms to access international carbon markets.
- **Formalize carbon trading markets:** Offer clear financial incentives to drive private sector decarbonization.

Analytical Framework

The Climate Change sector encompasses sub-sectors issues such as Weak adaptation efforts in agriculture & water, rising urban climate risks from outdated infrastructure and unplanned growth, low investment in mitigation, all addressed within this unified framework.

#	Issues	Cost To Economy	Reform Proposals	Investment Cost[1]	Expected Outcome	Measurable KPIs	Action By
Policy & Regulatory Issues							
1.1	**Sectoral impact and high climate vulnerability due to climate change**	• Climate-induced disasters cost Pakistan >$2 billion in 2025[120] • 169,000 Internal displacements due to disasters, 203,000 total number of IDPs, nearly 79,000 homes were damaged or destroyed[121]	• Mainstream climate risk screening in national planning, climate-resilient infrastructure, and Disaster Risk Management (DRM) integration	$2 billion	• Increased climate resilience • Reduced loss from disasters	• % of development screened for climate risk • Improvement in DRM Adoption Index	• Ministry of Climate Change (MoCC) • Planning Commission
1.2	**Insufficient institutional and governance capacity to effectively address emerging climate challenges**	• Rising climate impacts are increasing expenditures and straining fiscal resources • Sectoral disruptions are reducing productivity and slowing economic growth • Lack of protection strategies	• Enhance institutional and governance capacity for climate response • Align policies and resources with emerging climate risks.	None	• Improved institutional readiness for timely and effective climate action • Greater resilience of key sectors and reduced economic losses from climate impacts	• Percentage increase in climate-responsive budget allocation across key sectors • Reduction in disaster-related economic losses as a share of GDP	• Ministry of Climate Change (MoCC) • National Disaster Management Authority (NDMA) • Provincial Disaster Management Authorities (PDMAs)

[120] *https://tribune.com.pk/story/2542603/cost-of-climate-complacency*

[121] *https://api.internal-displacement.org/sites/default/files/publications/documents/idmc-grid-2025-global-report-on-internal-displacement.pdf*

#	Issues	Cost To Economy	Reform Proposals	Investment Cost[1]	Expected Outcome	Measurable KPIs	Action By
Policy & Regulatory Issues							
		against damage to livelihoods					
1.3	**Weak adaptation efforts in agriculture & water**	• 13.5% Crop loss from extreme weather conditions.[122] Example: Rising temperatures causing a potential 40% reduction in the size of Multan's mangoes	• Climate-smart agriculture, canal lining, drought-resilient seeds, and glacier monitoring	None	• Improved Agri resilience • Reduced yield loss	• CSA adoption rate • Agri yield variability • Water loss	MoNFSR IRSA PARC MoCC MoWR
1.4	**Rising urban climate risks from outdated, poor-quality infrastructure and unplanned growth**	• Urban climate disasters cost Pakistan ~$1.5B annually in infrastructure damage and lost productivity • ~$3.8B in infrastructure losses from 2022 floods due to poor standards[123] • Pakistan is ranked as the 5th most vulnerable country to	• Urban green infrastructure, permeable roads, flood-resilient housing, early warning systems • Mandate climate-proofing of new public infrastructure, update codes for housing, roads, energy	None	• Reduced urban disaster impact • Better quality infrastructure in terms of issues arising out of climate change	• Flooded areas reduced • Early warning coverage • Urban Green Index • Improved infrastructure quality	MoCC Urban development units like CDA/LDA/KDA, NDMA Ministry of Planning

[122] *https://profit.pakistantoday.com.pk/2025/06/09/major-crops-decline-by-13-5-amid-climate-pressures-exposing-fragility-in-agriculture/*
[123] *https://yaleclimateconnections.org/2022/08/cruel-echoes-of-a-2010-disaster-in-pakistans-catastrophic-2022-floods/*

#	Issues	Cost To Economy	Reform Proposals	Investment Cost[1]	Expected Outcome	Measurable KPIs	Action By
		• climate change - Global Climate Risk Index	update codes for housing, roads, energy				
Access to Finance							
2.1	**Low climate-aligned investment ecosystem; weak private sector participation**	• Private climate investment remains ~0.5% of GDP in 2025, costing Pakistan $1–2 billion annually in missed green jobs and economic opportunity[124]	• Develop Green Investment Guidelines • Launch sovereign green bonds • Enforce ESG regulations for banks and DFIs	It will be attained through public-private investment and engagement with donors.	• Higher private investment in climate action • More public and donor funds going towards financing climate related issues	• Climate finance mobilized ($) • Federal and provincial government budgetary outlays • Domestic private credit flows for climate related projects	MoF SBP MoCC SECP DFIs
2.2	**Pakistan lags in climate finance access and utilization**	• As of 2025, Pakistan has mobilized less than 1% of the ~US $70 billion international finance required under its NDCs by 2030, with only ~US $221 million accessed from the Green Climate Fund.[125]	• Accessible Climate Finance Facility • Simplify procedures for access to global climate funds (GCF, Adaptation Fund, etc.)	It will be attained through public-private investment and engagement with donors	• Enhanced climate finance related flows (domestic and foreign)	• Climate finance mobilized ($) • Number of approved GCF/GEF projects	MoCC MoF Economic Affairs Division NDRMF

[124] *https://sdpi.org/9576/blogs_detail*

[125] *https://www.undp.org/sites/g/files/zskgke326/files/2024-11/ndc_investment_plan.pdf*

#	Issues	Cost To Economy	Reform Proposals	Investment Cost[1]	Expected Outcome	Measurable KPIs	Action By
Technology Adoption							
3.1	**Limited R&D & private innovation in green tech**	• Pakistan's limited investment in green tech R&D and weak patent commercialization is costing the economy billions in missed export and innovation potential, with clean-tech patents still <0.05% of global share despite a 14% annual growth in filings[126]	• Green startup incubators, climate tech R&D tax breaks, public procurement incentives	None	• Local green tech industry • Export potential	• Number of climate patents; green startups; tech exports	MoST MoCC MoIT Ignite Fund
Market Access & Development							
4.1	**Untapped carbon markets; no domestic carbon pricing mechanism**	• Pakistan is missing out on over US $2 billion per year from its untapped carbon credit potential, particularly with agroforestry and mangrove-based credits, highlighting a major climate finance	• Set up voluntary carbon market, MRV system, national registry • Enable private sector participation through incentives like establishing a carbon trading market	No investment required	• Carbon credit trade flows • A working carbon market with active private sector participation	• Volume of credits traded • Registered projects related to climate change • MRV system adoption	MoCC SECP Finance Division (federal and provincial)

[126] *https://www.wipo.int/en/web/inventor-assistance-program/w/news/2025/unleashing-pakistan-s-innovative-potential-through-the-iap*

#	Issues	Cost To Economy	Reform Proposals	Investment Cost[1]	Expected Outcome	Measurable KPIs	Action By
Market Access & Development							
		opportunity still lying dormant[127]					
4.2	**Threats to eco-tourism zones from glacial melt, floods, and deforestation**	• Climate-related ecosystem degradation threatens tourism-dependent economies (e.g., Swat, Hunza), risking billions in lost revenue and local jobs • Pakistan on 179th ranking on Environmental Performance Index	• Eco-tourism zoning, climate-resilient infrastructure, seasonal visitor management	No investment required	• Preserved natural heritage, sustainable tourism, rural job retention	• Change in tourist arrivals • Ecosystem health indicators • Local tourism income	MoCC Ministry of Tourism GB/KP Planning Forest Departments
Gender Responsiveness							
5.1	**Disproportionate climate impact on women due to lack of gender-responsive planning and data**	• Gender-vulnerable populations face greater economic shocks and displacement from climate events, reducing household resilience and	• Gender-disaggregated climate risk mapping, inclusive adaptation strategies, climate financing access for women-led enterprises	No investment required	• Improved gender resilience • Increased participation of women in climate response programs	• % Of climate projects with gender integration • Access to climate finance by women-led SMEs	MoCC Ministry of Human Rights, Women Development Departments

[127] *https://tribune.com.pk/story/2548963/pakistans-missed-climate-opportunity*

#	Issues	Cost To Economy	Reform Proposals	Investment Cost[1]	Expected Outcome	Measurable KPIs	Action By
Gender Responsiveness							
		national productivity • Climate-driven early marriages reduce female labor force participation, leading to long-term productivity losses and missed contributions to the formal economy[128]					MoCC Ministry of Human Rights, Women Development Departments

Investment Summary

The total stock of PSDP investment earmarked for Climate Change Sector for 2024-25 is Rs. 5,256.960 million, while the credit flow to this sector is non-existent.

[128] *https://www.lemonde.fr/en/environment/article/2024/09/01/forced-marriages-on-the-rise-in-pakistan-due-to-climate-change*

Year-wise Investment Summary *(PKR Billion)*

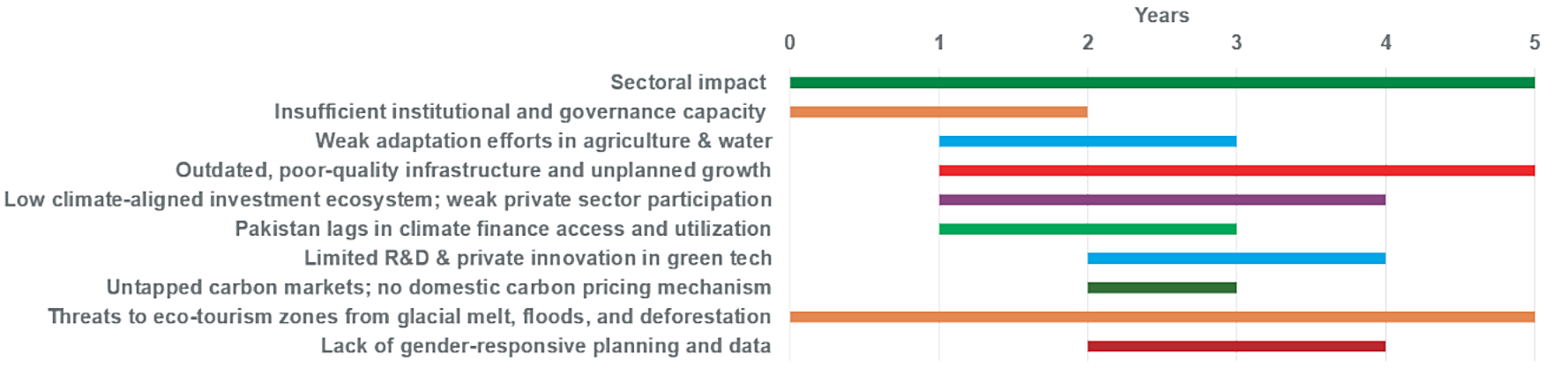
Issue Category	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Policy & Regulatory Issues						**558**
1.1 Sectoral impact and high climate vulnerability due to Climate Change	50	100	100	125	183	558
Access to Finance						-
Technology Adoption						-
Human Resource						-
Market Access and Development						-
Tax Structure						-
Total	**50**	**100**	**100**	**125**	**183**	**558**

**Proposed interventions based investment estimates*

Investment Multiplier

The multiplier impact of investment in Pakistan differs by different studies. Majority of studies have been done in context of PSDP's impact since it tends to be the largest portion of investment on aggregate (there is little in terms of estimates of private investment multiplier). However, there is no unanimity in terms of the size of multiplier. Almost all studies put it below 1, between 0.5 and 1. We will use 0.6 as the multiplier of investment based on these studies. Therefore, the investment multiplier for this sector, Climate Change, is PKR 334.8 billion

Year-wise Interventions in Climate Change Sector



Conclusion

In conclusion, Pakistan stands at a critical juncture where its minimal carbon footprint is overshadowed by its extreme climate vulnerability. Addressing these systemic challenges requires a transition from reactive disaster management to a proactive, climate-aligned governance and investment framework. By bridging the gap in international climate finance and incentivizing private sector participation, Pakistan can transform its environmental risks into opportunities for green economic growth and long-term national resilience.

HUMAN RESOURCE DEVELOPMENT

Key Statistics

Current Performance (FY25):

- **Population:** 255.2 million
- **Education Budget:** 1.6% GDP (Federal: Rs. 39.5B, Provincial Combined: Rs. 1,191.26B)
- **Migration:** 1,401,173 net emigration (2024) - predominantly unskilled workforce
- **Remittances:** $38.3 billion (FY 2024-25)[129]
- **Skills Composition of labor force:** 50% unskilled, 35% skilled
- **TVET Enrollment:** 0.46M students
- **Graduate Unemployment:** > 30%[130]
- **Annual Job Seekers:** 2 million new entrants per year

Infrastructure Gaps:

- **TVET Equipment:** Outdated machinery and technology in existing institutes
- **Digital Infrastructure:** Limited broadband access in 60% of educational institutions
- **Training Centers:** Provincial disparities in quality and capacity
- **Certification Systems:** Lack of internationally recognized standards
- **Quality Assurance:** Weak monitoring and evaluation mechanisms
- **Facility Utilization:** Technical training institutes functioning below capacity

Global Context & Rankings:

- **Investment Concentration:** Education expenditure at 0.8% of GDP, below regional and global averages
- **Skills Export:** Heavily concentrated in unskilled labor migration
- **Digital Gap:** Limited integration of technology in education and skills development
- **Out-of-School Children:** 38% children of school-going age - highest in South Asian region and one of the highest in the world

[129] *https://www.nation.com.pk/10-Jul-2025/pakistan-received-record-dollar-38-3b-remittances-in-fy2024-25*
[130] *Source: PIDE*

Strategic Importance

The rationale for prioritizing Human Resource Development (HRD) in Pakistan centers on transforming its demographic youth bulge into a productive economic engine to escape the low-growth trap. This assumes importance in context of the well-established link between quality human capital and economic growth in the long run. With over 60% of the population under 30, HRD is the vital link needed to convert a potential population boom into a high-yield workforce for global markets.

Human Resource Development plays a vital role in strengthening the domestic economy of Pakistan by enhancing the quality, skills, and productivity of its workforce. Effective HRD initiatives, such as education, vocational training, and professional skill development, contribute directly to economic growth by improving labor productivity and increasing the efficiency of various sectors, thereby supporting the expansion of Pakistan's GDP. Additionally, HRD facilitates employment generation by equipping individuals with market-relevant skills that meet the demands of industries, reducing unemployment. It also strengthens economic linkages across sectors by enabling a more competent workforce that supports innovation, entrepreneurship, and industrial competitiveness. Consequently, investment in HRD not only improves individual earning potential but also promotes sustainable economic development and greater integration of Pakistan's domestic industries.

The HRD sector of Pakistan is increasingly relevant at regional and international levels as it enhances the country's capacity to participate in global markets. It enables a shift from traditional low-value exports (e.g., raw textiles) to high-margin IT, engineering, and BPO services, which are less sensitive to physical trade barriers. Developing a future-ready workforce in AI, cybersecurity, and green technologies.

Key Challenges

- **Foundational Pipeline Crisis:** The persistent crisis of 25 million out-of-school children (OOSC) severely depletes the national talent pool before it can even reach the skills development stage.
- **Institutional Misalignment:** Improper institutional placement and fragmented governance of the skills sector hinder cohesive policy execution and strategic oversight.
- **Severe TVET Capacity Gap:** Technical and Vocational Education and Training (TVET) institutes currently serve only 0.46 million students, a fraction of the capacity required to meet modern labor market demands.
- **Financial Underutilization:** Despite budget allocations, transparency issues and the consistent underutilization of development funds prevent effective infrastructure and program upgrades.
- **Skills-Market Mismatch:** A lack of private sector integration and a significant digital transformation gap result in graduates whose skills do not align with industry requirements.
- **Workforce Polarization & Brain Drain:** Inefficiencies lead to an alarming "brain drain" of high-end professionals while the country primarily exports low-skilled labor, stagnating overall productivity.
- **Stagnant Labor Productivity:** Collectively, these bottlenecks threaten long-term GDP growth by failing to convert human capital into a sophisticated, high-value workforce.

Reform Proposals

Long Term

- **Integrated Digital Education Strategy:** Embed AI and advanced digital skills across all educational tiers to future-proof the workforce for the global IT and healthcare export sectors.
- **Gender-Inclusive Trade Shifts:** Launch a pivotal transition toward women-led programs in traditionally male-dominated trades, such as welding and high-end engineering, to unlock latent economic potential.
- **Elite Talent Retention (Unemployment Insurance):** Introduce Unemployment Insurance specifically for top-tier human capital as a strategic incentive to mitigate brain drain and retain elite talent within the domestic market.
- **PPP-Driven Training Ecosystems:** Foster a tech-driven ecosystem through Public-Private Partnerships (PPP) to align vocational training with real-time market needs and promote entrepreneurship.
- **Global Value Chain Integration:** Shift the national economic profile toward a high-productivity model that incentivizes excellence and secures Pakistan's position within high-value global supply chains.

Short Term

- **Institutional Decoupling:** Decouple the Skills and Vocational Training sector from the Ministry of Federal Education to establish an independent, professionalized governance model.
- **NAVTTC Restructuring:** Transform NAVTTC into a dedicated regulatory and accrediting body, offloading direct training delivery to specialized private companies to foster market-driven excellence.
- **Fund Optimization & Transparency:** Prioritize fund allocation toward direct training rather than administrative overhead, supported by rigorous financial monitoring and accountability mechanisms.
- **Strategic Skill Corridors:** Develop specialized training programs tailored specifically to the labor requirements of "Countries of Interest," ensuring immediate international employability for the workforce.
- **Merit-Based Public Recruitment:** Restore institutional integrity by mandating merit-based recruitment systems in public institutions to dismantle nepotism and provide career predictability.


CORNELL

Analytical Framework

The Human Resource sector encompasses different levels of education (tertiary, elementary, higher education, etc.), population welfare and human resource development, covering issues such as high percentage of out of school children, budgetary allocations and utilization, transparency, low skilled workforce, poor indicators in global comparison and flight of human capital, etc., are all addressed within this unified framework.

#	Issues	Cost To Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action by
Policy & Regulatory Issues							
1.1	**Improper institutional placement of skills sector**	• Improper institutional oversight slows workforce development, leading to issues like jobs and skills mismatch	• Separate Skills and Vocational Training from the Ministry of Federal Education and Professional Training, run by a Board staffed with professionals within their field, to align NVQF programs with labor-market needs	• PKR 25-30 million, mainly for setting up and financial remuneration of Board Members	• Better alignment of skills training with labor-market needs • Increased employability and productivity of the workforce	• Percentage of vocational graduates employed within six months of completing training • Number of NVQF-aligned programs implemented and certified annually.	• Ministry of Federal Education and Professional Training (MoFEPT) • National Vocational & Technical Training Commission (NAVTTC) • Provincial TEVTAs (Technical Education & Vocational Training Authorities) • Ministry of Planning

#	Issues	Cost To Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action by
Policy & Regulatory Issues							
1.2	**High Out-of-School Children (OOSC)**	• Human capital waste • Perpetual poverty • Social instability • Limited growth	• Emergency enrollment campaigns • Increase number of mobile units • Learn from Bangladesh's TVET model (19% enrollment) • Digital initiatives (India) • Training mechanism integration with subsidy mechanisms like BISP	• Programs like BISP already have a significant outlay for EDU related initiatives, aside from federal and provincial initiatives (like Sindh Govt's new student tracking system). Would primarily need re-arranging some of the finances for targeted enrollment	• Reduced number of OOSC • Regional equity • Primary completion rates improved	• OOSC reduction • Provincial variation • Completion rates (by province)	• Ministry of Federal Education & Professional Training • Provincial Education Departments • Local Govts • Donors/Development partners
1.3	**Transparency Issues** *(Even after digitization and portal development)*	• Inefficient resource utilization • Minimum stakeholder confidence • Digital infrastructure in place but human corruption overrides it	• Regular quality audits and monitoring	• None	• Improved transparency • Enhanced education quality • Better resource utilization	• Transparency indices • Quality audit scores • Stakeholder satisfaction rates • Improved quality of graduates	• Anti-corruption bodies • Education regulatory authorities • Civil society • International monitoring agencies

#	Issues	Cost To Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action by
Access to Finance							
2.1	**Limited TVET Capacity** *(Pakistan: 0.46M vs Bangladesh: 19% enrollment)*	• Skills shortage • Import dependence • Poor competitiveness	• Expand TVET equipment • Adopt German & Bangladesh's secondary TVET model • NAVTTC initiated international certification • NAVTTC currently regulator, financier, and accreditor - make it only regulate and create separate private company under section 42 for giving training • NAVTTC collaborate with more institutions like FGEI to give training to more deserving people	• There are already significant amounts directed towards technical training, from domestic resources and via donors. Funds should be arranged from within these allocations (like more expense on training than on infrastructure)	• Increased TVET capacity • Better secondary integration • Global recognition	• Enrollment growth from 0.46M • Integration % • Certifications awarded • Recognition/ accreditation of Pakistani TVET qualifications by international bodies	• NAVTTC • Provincial TEVTAs • Secondary Education Departments • Global certification bodies • FGEI

#	Issues	Cost To Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action by
Access to Finance							
2.2	**Underutilization of funds**	• Inefficient allocation of resources reduces the impact of vocational programs • Excessive spending on infrastructure over training weakens workforce development	• Prioritize fund allocation toward direct training and skill development • Introduce transparent financial monitoring and accountability mechanisms	• Re-arrange expenditure priorities, with less expense on Brick Mortar and Perks and Privileges	• Enhanced return on investment in vocational training	• Percentage of vocational training budget spent directly on training programs • Number of trainees successfully completing skill programs annually.	• MoFEPT • NAVTTC • Provincial TEVTAs
Technology Adoption							
3.1	**Digital Transformation Gap**	• Loss of global competitiveness • Lost human capital export opportunities as per • global demand, like EV technicians, biomass technicians, IT workers, etc.,	• Comprehensive digital education strategy • Develop strong IT/healthcare export sectors • AI and digital skills integration	None	• Enhanced digital literacy • Future-ready workforce	• Increased IT training graduates	• Ministry of IT & Telecom • NAVTTC • Pakistan Software Export Board (PSEB) • Technology companies • International partners

#	Issues	Cost To Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action by
Human Resources Issues							
4.1	**Low Skilled Workforce Export** *(Pakistan: 50% unskilled vs Bangladesh skilled sector)*	• Lower remittances • Poor wage competitiveness • Limited access to high-value markets	• Expand PMYSDP (currently 76k) • Women-led programs (welding, other conventional male dominated trades)[131] • Employers are more eager to employ females than males • Develop specialized skill corridors along countries of interest • Provision of male and female nurses in high demand countries, given old-age care is a major industry in the developed countries.	• None	• Targeted skilled workers tailored to specific country needs • Improved wage rates abroad • Increase in remittances	• % certified workers • Skill composition shift • Placement rate • Increased remittance per worker	• NAVTTC • Bureau of Emigration and Overseas Employment (BE&OE) • Provincial TEVTAs • Overseas Employment Corporation (OEC) • Private Training Providers • Commercial attaches

[131] *First female welder sent to South Korea*

#	Issues	Cost To Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action by
Human Resources Issues							
4.2	**Brain Drain, affecting Economic Growth prospects**	• Pakistan lost 727,381 workers to overseas employment in 2024[132] • Significant resources ('top-quality human capital') are lost when these individuals migrate. The recipient states benefit directly from these migrations as they haven't paid any cost	• Growth that creates jobs and opportunities, and an environment where entrepreneurship thrives. In other words, analyzing the growth mechanisms for equal, merit-based opportunities • Merit-based Recruitment Systems in public institutions to reduce nepotism and increase career predictability • Unemployment Insurance for top-tier human capital as an incentive to	• Any proposed unemployment insurance can be worked out in conjunction with State Life	• Increased retention and return of high-skilled professionals • Strengthened institutional & economic capacity	• Skilled emigration reduction rate • Skilled return and reintegration rate	• Ministry of Overseas Pakistanis & Human Resource Development (MOPHRD) • Bureau of Emigration & Overseas Employment (BEOE) • Ministry of Education & Professional Training (MoEPT) • Finance Division

[132] *https://www.brecorder.com/news/40366973*

#	Issues	Cost To Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action by
Human Resources Issues							
			incentive to remain in the country				Division
Market Access and Development							
5.1	**Weak Private Sector Integration** *(vs India's tech-driven HR solutions)*	• Underused potential • Lacking innovation • Low HR efficiency	• Tech-driven HR platforms • Create skill/AI payroll systems • Public Private Partnerships • Aligning the market needs	• None	• Increased private participation • Skill matching • HR innovation	• Private partnerships • Technology adoption • Skill-job matching KPIs	• SECP • Non profit • private companies • Tech firms • Chambers of Commerce • Donor organizations

Investment Summary

Year-wise Investment Summary *(PKR Billion)*

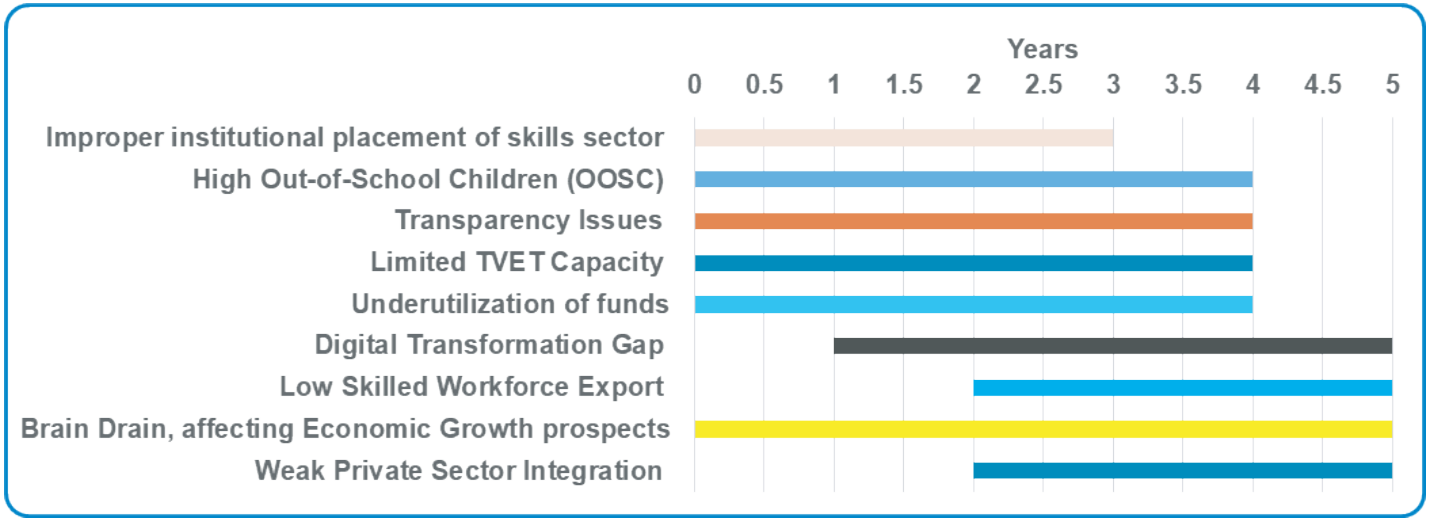
Category	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Policy & Regulatory Issues						**0.025**
1.1 Improper institutional placement of skills sector	0.005	0.005	0.005	0.005	0.005	0.025
Access to Finance						-
Technology Adoption						-
Human Resource Issues						-
Market Access and Development						-
Total	**0.005**	**0.005**	**0.005**	**0.005**	**0.005**	**0.025**

**Proposed interventions based investment estimates*

Investment Multiplier

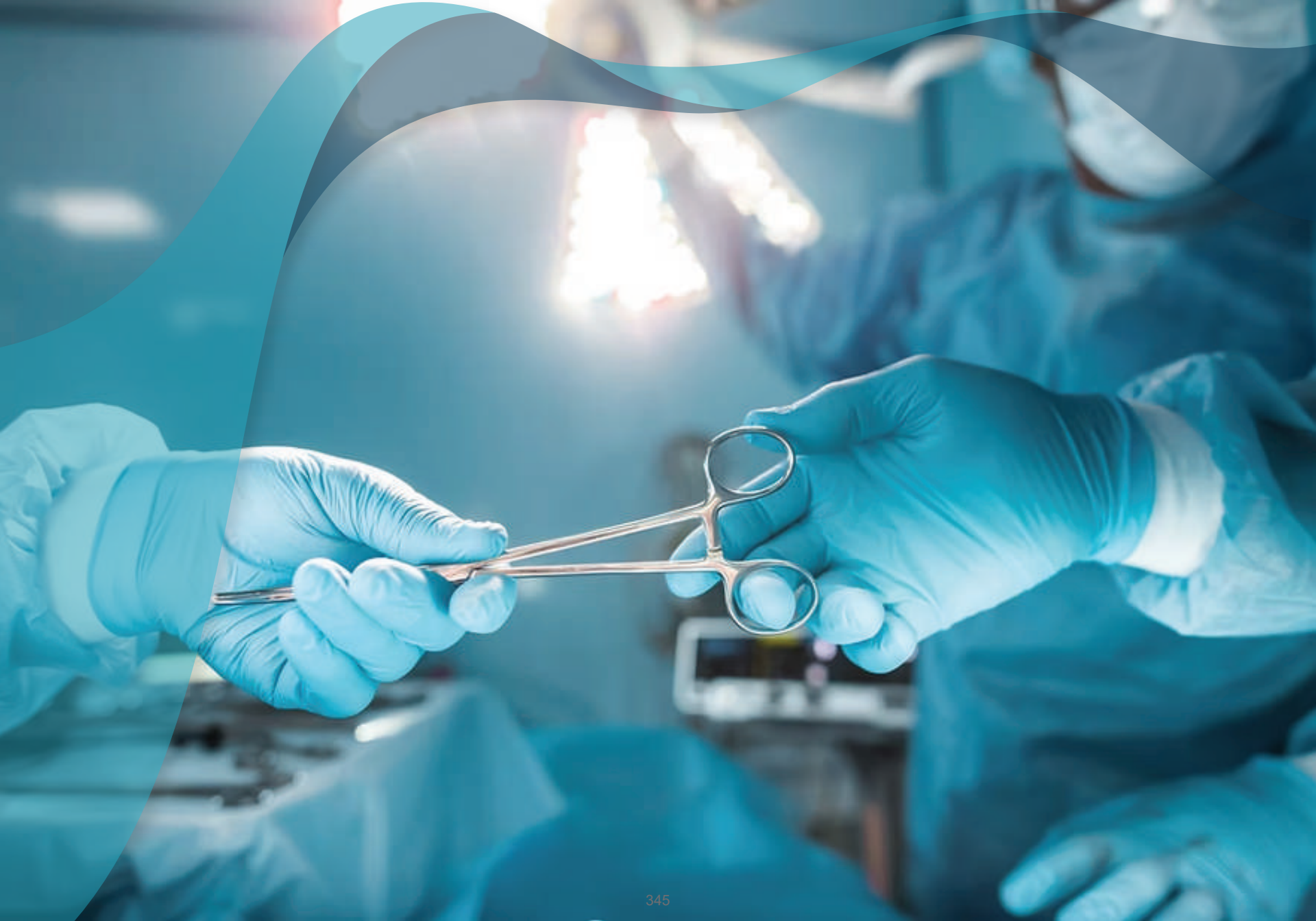
The multiplier impact of investment in Pakistan differs by different studies. Majority of studies have been done in context of PSDP's impact since it tends to be the largest portion of investment on aggregate (there is little in terms of estimates of private investment multiplier). However, there is no unanimity in terms of the size of the multiplier. Almost all studies put it below 1, between 0.5 and 1. We will use 0.6 as the multiplier of investment based on these studies. Therefore, the investment multiplier for this sector, Human Resource Development, is PKR 18 million.

Year-wise Interventions in Human Resource Development Sector



Conclusion

In conclusion, Pakistan's human resource development requires a fundamental shift from a quantitative focus to a high-quality, market-driven model that addresses the foundational crisis of out-of-school children and technical capacity gaps. By decoupling skill governance from traditional education and institutionalizing merit-based, digital-first training, the country can transform its demographic challenge into a productive economic asset. Ultimately, retaining elite talent through strategic incentives and empowering a gender-inclusive workforce will be the cornerstones of securing Pakistan's position in the high-value global economy.



HEALTH

Key Statistics

Current Performance (FY25):

- **Health Expenditure:** 0.9% of GDP (well below WHO recommendation of 5%)
- **Infant Mortality Rate (IMR):** 53.5 per 1,000 live births
- **Maternal Mortality Rate (MMR):** ~155 per 100,000 live births
- **Out-of-Pocket (OOP) Health Spending:** 73% for outpatient, 20% for inpatient care
- **Total OOP Health Expenditure Burden:** Rs. 984 Bn annually
- **Human Resources:** 107,643 nurses vs 319,572 doctors (0.34 nurse-to-doctor ratio)
- **Healthcare Coverage:** Sehat Card penetration limited, 33% still pay OOP
- **Contraceptive Prevalence Rate:** 34% (significantly below targets)
- **Digital Health Adoption:** Limited technology integration
- **Rural Healthcare Access:** Major disparities in service delivery

Infrastructure Gaps:

- **Primary Healthcare Centers:** Insufficient coverage in rural areas
- **Hospital Beds:** 0.6 per 1,000 people (vs WHO standard of 3)
- **Medical Equipment:** Outdated and insufficient diagnostic capabilities
- **Emergency Services:** Limited ambulance and emergency response systems
- **Health Information Systems:** Fragmented data collection and reporting

Global Context & Rankings:

- **Health System Performance:** Among lower-middle-income countries
- **Life Expectancy:** Below regional averages
- **Healthcare Access Index:** Limited coverage in rural areas
- **Digital Health Readiness:** Lagging behind regional competitors and peers

Strategic Importance

The health sector holds strategic importance in Pakistan as it directly influences the quality and productivity of the country's human capital. A healthy population enhances workforce efficiency, reduces economic losses caused by illness, and supports sustainable economic growth. Moreover, an effective health system improves life expectancy, strengthens social welfare, and contributes to national development by ensuring that individuals are physically and mentally capable of participating in productive economic activities. Prioritizing the health sector in Pakistan is a strategic necessity driven by the need to protect human capital and ensure long-term macroeconomic stability. A strong health system reduces disease burden, lowers mortality rates, and increases life expectancy, enabling people to participate more effectively in education and the workforce. Investing in healthcare also helps reduce poverty caused by high medical expenses and enhances labor productivity, making it essential for sustainable economic growth and social well-being in the country.

The health sector contributes significantly to Pakistan's domestic economy by supporting economic growth, employment generation, and labor productivity. It contributes to GDP through public and private expenditures on hospitals, pharmaceuticals, medical services, and health-related infrastructure. The sector also creates substantial employment opportunities for doctors, nurses, paramedics, pharmacists, and administrative staff, thereby supporting livelihoods and reducing unemployment. Moreover, an effective health system enhances workforce productivity enabling individuals to work more efficiently and contribute more effectively to economic activities and national development.

Key Challenges

- **Chronic Underfunding:** Health expenditure remains critically low, stagnating at approximately 0.9% of GDP—well below the regional and global averages required for a functional public health system.
- **Infrastructure & Accessibility Gaps:** Physical healthcare facilities are critically underdeveloped, particularly in rural regions where the lack of primary coverage leaves vast populations without basic medical access.
- **Technological & Diagnostic Deficit:** Internal medical capabilities are hindered by outdated diagnostic equipment and a severe lack of the technical resources necessary for modern clinical interventions.
- **Fragmented Digital Architecture:** The absence of a unified national digital health system and substandard Electronic Medical Records (EMR) prevent data-driven decision-making and efficient public health tracking.
- **Acute Nursing Shortage:** The workforce is destabilized by a severe shortage of trained nurses.
- **Uneven Universal Coverage:** Despite the success of the Sehat Sahulat Program, the implementation of Universal Health Coverage (UHC) and Minimum Health Service Delivery Standards remains geographically fragmented.
- **Dysfunctional Emergency Framework:** The absence of an integrated, nationwide ambulance network and coordinated response systems severely limits the capacity for timely critical care.
- **Fiscal Barriers to Affordability:** High taxation on essential medical supplies, diagnostics, and recent digital integration mandates increase operational costs, ultimately burdening the patient and lowering insurance penetration.

Reform Proposals

Long Term

- **Elevation of Health Expenditure:** Commit to a structural increase in health spending from the current 0.9% to a target of 2.5%–3% of GDP to sustainably fund Universal Health Coverage (UHC).
- **AI-Driven Disease Surveillance:** Deploy AI-based early warning tools and advanced data analytics to predict and manage disease outbreaks before they become national crises.
- **KPI-Based Workforce Accountability:** Transition the healthcare workforce toward a standardized, KPI-driven performance evaluation system where funding and promotions are linked to measurable health outcomes.
- **Domestic Medical Manufacturing Incentives:** Introduce incentives for the domestic production of critical medical equipment, reducing the country's heavy reliance on high-cost imports.
- **Unified Local Health Platforms:** Integrate nutrition, sanitation, and immunization under unified local government platforms to move the system from a fragmented, reactive model to a holistic, preventive one.

Short Term

- **Fiscal Rationalization of Medical Supplies:** Reduce or abolish high taxes on essential medical supplies and diagnostics to lower the cost of care and improve affordability for the general public.
- **Fast-Track Nursing & Allied Health Training:** Address the acute human resource deficit by launching fast-track training programs and ensuring the full-scale utilization of all existing nursing and allied health institutions.
- **Universal Digital Registries:** Digitized health reporting starting from the Union Council level to create Universal Birth and Immunization Registries, ensuring no child is left off the national health grid.
- **Strengthening the LHW Program:** Empower Lady Health Workers (LHWs) by providing them with enhanced mobility (e.g., fuel/transport allowances) and handheld digital diagnostic tools for real-time field reporting.
- **Strategic Sehat Card Expansion:** Prioritize the expansion of Sehat Card Plus to provide full financial protection for all citizens below the poverty line and those working within the informal sector.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Analytical Framework

The Human Resource (Health) sector encompasses sub-sectors such as disease burden, provision of health facilities, state of health facilities (quality and quantity), and healthcare expenses at federal and provincial level.

#	Issues	Cost To Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action By
Policy & Regulatory Issues							
1.1	**Very low spending on Health as percentage of GDP**	• An unhealthy workforce has been shown to inflict losses upon the economy and GDP. Pakistan's workforce and population carry a high disease burden, its overall health facilities are unsatisfactory, and health services do not meet the required quality criterion. Most of these are due to low healthcare expense as percentage of GDP, one of the lowest in the region and the world	• From hardly 1% of GDP, health expenditure has to be at least 2.5 to 3% of GDP for better health outcomes and meeting the minimum global health standards	• Given that total healthcare allocation (federal + provincial) for FY 23-24 stood at PKR 925 billion, this would imply substantial increase to the tune of PKR 1.5 trillion or more to meet the required expenditure level as advised by UN for meeting health goals	• Overall better outcomes in terms of all healthcare levels (primary, secondary, tertiary) and across all health indicators	• Total healthcare expenditure as % of GDP • Overall health indictors	Finance Division, (NHSRC), Provincial Health Departments, Planning Ministry

#	Issues	Cost To Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action By
Policy & Regulatory Issues							
1.2	**Weak public health & surveillance**	• IMR 53.5/1,000 • MMR ≈155/100,000[133] • OOP outpatient ~73%, inpatient ~20% of Rs 984 bn cost[134]	• Upgrade disease surveillance systems using AI-based early warning tools • digitize health reporting from union councils upward • integrate nutrition, sanitation and immunization efforts under unified local platforms • ensure Universal Birth & Immunization Registries • strengthen Lady Health Worker program with digital tools and better mobility	• Project titled 'Development of Integrated Disease and Response System (IDSRS) with Public Health Laboratories Network (PHLN)' was approved in FY 21-22 with a total outlay of Rs. 4.5 billion. However, it is yet to be completed and implemented. This needs to be completed	• Overall better outcomes, as in the case of IMR and overall life expectancy • Real-time data availability at both micro and macro level • Better integration of health sector projects and expenses	• Health indicators like IMR, MMR, immunization • Real-time data availability on various health indicators	NIH, MoNHSR&C, WHO
1.3	**No consistent service structure or KPI-based evaluation for healthcare workers**	• Inefficient and demotivated healthcare workforce reduces productivity and service quality,	• Introduce a unified, performance-based service structure for all healthcare	• Mainly legislative initiatives/changes required	• Improved workforce motivation and efficiency • Enhanced accountability and optimal	• Percentage of healthcare workers meeting defined performance KPIs	Ministry of National Health Services, Regulations & Coordination (NHSRC) Provincial Health Departments /

[133] *https://www.macrotrends.net/global-metrics/countries/pak/pakistan/infant-mortality-rate*
[134] *https://www.dawn.com/news/1872505*

#	Issues	Cost To Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action By
Policy & Regulatory Issues							
1.3		• Lack of performance-based accountability results in low efficiency and misallocation of human resources	• Implement a standardized KPI-driven performance evaluation system		utilization of human resources		Health Secretariats
1.4	**Partial and uneven implementation of Universal Health Coverage (UHC) package and Minimum Health Service Delivery Standards**	• Limited access to essential health services • Inefficiencies and disparities in service delivery • Heightened risk of financial losses especially to poor stratum of society, with savings wiped out	• Strengthen nationwide implementation and monitoring of UHC packages and MHSDS • Introduce performance-based funding and accountability mechanisms • Set aside funds for continuous funding of UHC	• A 2022 estimate for UHC put the number at PKR 400 billion annually (at least).[135] By now the amount has increased. Importantly, this much needs to be set aside annually from fiscal resources	-Improved equitable access to essential health services - Enhanced quality and consistency of healthcare delivery	• Percentage of health facilities fully compliant with MHSDS • Proportion of population accessing essential health services under the UHC package	MNHSRC Provincial Health Departments Finance Division Planning Ministry

[135] *Towards universal health coverage in Pakistan: Challenges ahead' (2022), The Lancet, June 2022 edition*

#	Issues	Cost To Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action By
Access to Finance							
2.1	**Low health-insurance penetration due to low availability of finances**	• 33% of Sehat-Card users still pay OOP[136] • Lack of risk pooling causes catastrophic illness costs	• Find space within fiscal resources for expansion of financing UHC, preferably through budgeted expenses through PSDP • Expand Sehat Card Plus to cover all citizens below poverty line and informal sector workers • promote micro-insurance • analyze whether employer contributions like EOBI could be used to finance a portion of health insurance for them • offer tax credits/subsidies to private	Stated above	• Greater coverage of population • Lower OOP health expense	• % of population insured • % of OOP expenditures	MNHSRC- Provincial Health Departments Finance Division Planning Ministry

[136] *https://www.researchgate.net/publication/386287358_Transitioning_to_social_health_insurance_in_Pakistan_The_experience_of_Sehat_Card_Plus_in_Khyber_Pakhtunkhwa_province*

#	Issues	Cost To Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action By
Access to Finance							
			insurance providers for coverage expansion				
Technology Adoption							
3.1	**Substandard Electronic Medical Records (EMR) development and rollout**	• Wasted public funds on failed EMR systems • Operational inefficiencies and data inaccuracies	• Implement stringent vendor selection and quality-assurance processes • Establish standardized monitoring and evaluation frameworks	• Mainly needs fine-tuning and correction of the efforts already made	• Reliable and fully functional EMR systems • Increased efficiency in healthcare service delivery	• Percentage of public hospitals successfully using the EMR system • Reduction in data-entry errors and compliance issues	MNHSRC, Provincial Health Departments, Contracted EMR Vendors / IT Service Providers, MoITT
3.2	**Foreign exchange loss due to import of machinery**	• Almost all of the top-quality, complex machinery required for healthcare in Pakistan has to be imported, inflicting significant foreign exchange loss and generating long-term dollar liabilities in the form of required services	• Government should chart out a strategy in conjunction with Engineering Development Board (EDB) in terms of lessening future dependence and manufacturing at least some part of these machines here • A significant outlay for developing such technologies was allotted under PSDP a	• Investment in such technologies already made under PSDP ('Strategic Projects'). Also, in the aftermath of COVID-19, there was a concerted effort to manufacture various machines (like ventilators) at home. Such initiatives may be continued and supported	• Lesser dependence on imported machinery, especially sophisticated machinery like MRI • Lesser loss of foreign exchange	• Foreign exchange spent n importing healthcare machinery • % of machinery or its components manufactured at home	MoIP, MNHSRC, Planning Ministry

Technology Adoption							
			few years ago, under the 'strategic projects' head. Government should utilize upon the technologies developed under that initiative • Private sector engineering firms may be given an incentive for manufacturing these machines, as in the form of long-term commitment for buying and using its services	fiscally (if required)			

#	Issues	Cost To Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action By
Human Resource Issues							
4.1	**Shortage of trained nurses and health workers**	• 107,643 nurses[137] vs 319,572 doctors[138]→ nurse/doctor ratio ≈0.34 • Only 0.47 nurses/1,000 people (~1 nurse per 2,132 citizens)[139] • Doctor-patient ≈1:1,500	• Proper utilization of existing nursing and allied health institutions; • Scale up existing nursing schools • introduce fast-track training programs • incentivize per-urban and rural postings via allowances and career fast-tracking • Digitize HR deployment and payroll systems • Clarity regarding career paths and licensing for paramedics	None	• Better nurse to doctor and nurse to patient's ratio • Better doctor to patient ratio • Easier placement when it comes to peri-urban and rural areas	• Nurse per doctor ratio • Nurse per patient ratio • Doctor to patient ratio • Peri-urban and rural placement	PMDC, Nursing Council, HEC

[137] *https://nursology.net/2025/07/01/one-nurse-twelve-patients-and-a-lonely-battle-listen-to-the-silent-screams-of-pakistani-nurses-on-international-nurses-day-2025-our-nurses-our-future-caring-for-nurses-strengthens-econom*
[138] *https://www.finance.gov.pk/survey/chapter_25/11_Health_and_Nutrition.pdf*
[139] *https://www.researchgate.net/publication/372395982_Nursing_Shortage_in_Pakistan*

#	Issues	Cost To Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action By
Tax Structure							
5.1	**High Taxation on medical supplies and diagnostics**	• Increased healthcare costs for providers and patients • Discouragement of investment and innovation in the healthcare sector	• Reduce or rationalize taxes on essential medical supplies and diagnostics • Introduce tax incentives or exemptions for domestic production and import of critical medical equipment and diagnostics	Would basically require changes to FBR taxation rates	• Lower OOP healthcare expenses due to lower costs • Increased availability and adoption of essential diagnostics and medical supplies	• Percentage reduction in the cost of essential medical supplies and diagnostics	Ministry of National Health Services, Regulations & Coordination (NHSRC) Federal Board of Revenue (FBR) Provincial Health Departments

Investment Summary

Year-wise Investment Summary *(PKR Billion)*

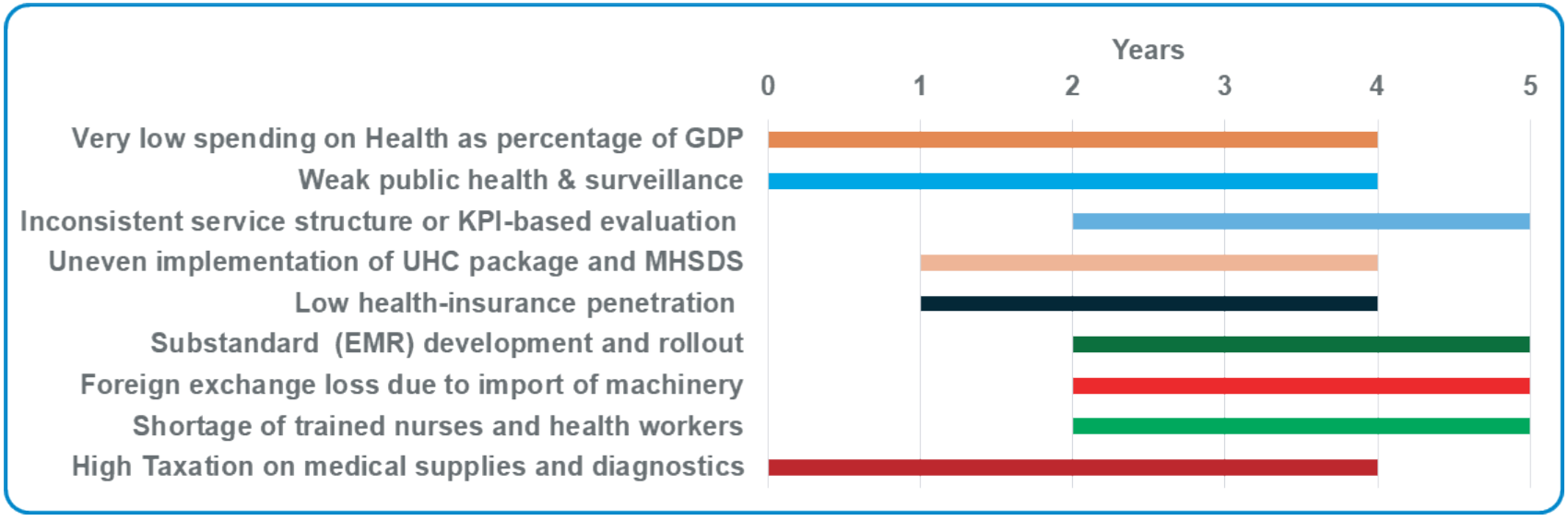
Category	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Policy & Regulatory Issues						**1900**
1.1 Very low spending on Health as percentage of GDP	200	250	300	350	400	1500
1.4 Partial and uneven implementation of Universal Health Coverage (UHC) package and Minimum Health Service Delivery Standards	25	25	100	100	150	400
Access to Finance						-
Technology Adoption						-
Human Resource Issues						-
Market Access & Development						-
Tax Structure						-
Total	**225**	**275**	**400**	**450**	**550**	**1,900**

**Proposed interventions based investment estimates*

Investment Multiplier

The multiplier impact of investment in Pakistan differs by different studies. Majority of studies have been done in context of PSDP's impact since it tends to be the largest portion of investment on aggregate (there is little in terms of estimates of private investment multiplier). However, there is no unanimity in terms of the size of the multiplier. Almost all studies put it below 1, between 0.5 and 1. We will use 0.6 as the multiplier of investment based on these studies. Therefore, the investment multiplier for this sector, Health is PKR 1.14 trillion.

Year-wise Interventions in Health Sector



Conclusion

In conclusion, modernizing Pakistan's healthcare sector requires a fundamental shift from a reactive, underfunded model to a proactive, data-driven system supported by a fiscal commitment of 2.5% to 3% of GDP. By bridging the digital divide through AI-based surveillance and universal registries, and by addressing the critical nursing shortage through fast-track institutional scaling, the country can ensure that its primary healthcare infrastructure is resilient enough to meet the needs of both rural and urban populations. Ultimately, integrating social health protection with domestic manufacturing incentives will create a self-sustaining ecosystem that provides equitable, high-quality medical access to every citizen.

POPULATION PLANNING

Key Statistics

Current Performance (FY25):

- **Population:** 255.2 million (growing at 2.55% annually)
- **Population Growth:** 5.6 million people added per year
- **Unmet Need for Contraception:** ~17% (affecting 9M+ married women)
- **Contraceptive Prevalence Rate (CPR):** ~34% (significantly below national target of 60% by 2030)
- **Adolescent Fertility:** 44 births per 1,000 for girls aged 15-19
- **Out-of-School Children:** More than 25 million
- **Urban Growth Rate:** 3% annually

Pakistan in Global context:

- **Demographic Challenge:** 5th most populous country globally
- **Demographic Structure:** 67% population under 30 years of age, compared to global 50%
- **Population Growth Rate:** >2%, compared to global 1.57%
- **Total Fertility Rate (TFR):** 3.5 vs global average of 2.1
- **Infant Mortality Rate (IMR):** 53.5 per 1,000 live births
- **Contraceptive Prevalence Rate (CPR):** ~34% compared to global average of 65%
- **Family Planning Investment:** ~0.03% of GDP (well below recommended 0.1%)
- **Health Infrastructure:** 0.6 hospital beds per 1,000 people (vs WHO standard of 3)
- **Disease Burden:** One of the largest in the world, with rate of diabetic prevalence among top 3
- **Social Services Stress:** 930 m^3/year per capita (approaching water stress threshold)

Strategic Importance

The strategic importance of population planning in Pakistan is foundational to the country's macroeconomic stability and long-term human development. With a population exceeding 255 million and an annual growth rate of 2.55%, the sector acts as a primary determinant of the state's ability to provide essential services, including healthcare, education, and food security. Effective population management is no longer merely a social objective but a critical economic imperative. It is the key to ease the immense pressure on natural resources and infrastructure. By prioritizing reproductive health, female empowerment, and family planning through a rights-based framework, Pakistan can mitigate the risks of unmanageable growth, thereby, stabilizing its Human Development Index (HDI) and ensuring that economic gains are not consistently outpaced by demographic expansion.

The population sector serves as the foundational determinant of Pakistan's macroeconomic trajectory, directly influencing GDP growth, labor market dynamics, and national productivity levels. The population has a pronounced youth bulge at around 67%[140] of the population, with possibility of turning it into a productive demographic dividend rather than a fiscal burden. Strategic interventions in reproductive health and family planning offer a transformative return on investment and increase female labor force participation. Ultimately, the transition from quantitative population growth to qualitative human capital development is the primary mechanism for stabilizing per capita income and ensuring that economic expansion is not consistently neutralized by demographic pressure.

Key Challenges

- **Explosive Demographic Growth:** With a population of 255.2 million and an annual addition of 5.6 million people, Pakistan faces an unsustainable growth rate that outpaces its resource allocation.
- **Youth Bulge Pressures:** Approximately 67% of the population is under the age of 30, creating an overwhelming and immediate demand for employment, education, and social services that the current infrastructure cannot meet.
- **Stagnant Fiscal Commitment:** Investment in family planning is critically low at 0.03% of GDP, falling far short of the 0.1% required for systemic impact and long-term demographic stability.
- **Low Contraceptive Prevalence (CPR):** The current CPR of 34% trails significantly behind the 2030 national target of 60%, leaving an unmet need for contraception for over 9 million married women.
- **Policy and Legal Voids:** The absence of a legal guarantee for family planning services and mandatory pre-marital counseling contributes to a high adolescent fertility rate.
- **Financial & Tax Barriers:** Limited domestic financing for contraceptive procurement is compounded by high tax rates on essential reproductive health goods, restricting market penetration and affordability.
- **Fragile Service Delivery:** Frequent disruptions to the Lady Health Worker (LHW) and Community Midwife (CMW) programs, alongside security concerns, severely limit the reach of frontline healthcare.
- **Unregulated Urban Expansion:** Rapid, informal urban growth makes it difficult to provide structured reproductive health services to marginalized and migratory populations.
- **Data & Accountability Deficit:** A deficient Monitoring and Evaluation (M&E) framework and fragmented data quality hinder the strategic and equitable distribution of family planning resources.

[140] *https://hdr.undp.org/content/unleashing-potential-young-pakistan*

Reform Proposals

Long Term

- **Legislative Modernization:** Enact and strictly enforce a national ban on marriages below 18 years of age to address high adolescent fertility rates and improve maternal health outcomes.
- **Mandatory Pre-Marital Counseling:** Legalize and institutionalize mandatory pre-marital counseling to ensure young couples are educated on reproductive rights and family spacing before starting a family.
- **Youth-Friendly Infrastructure:** Establish a nationwide network of Youth-Friendly Clinics that provide non-judgmental, accessible reproductive health services to Pakistan's massive under-30 population.
- **Multi-Sectoral Integration:** Transition from standalone population programs to a model that integrates family planning with nutrition, education, and women's economic empowerment to reach a sustainable demographic equilibrium.

Short Term

- **Fiscal Ring-Fencing: I**ncrease family planning investment to a dedicated 0.1% of GDP, ensuring these funds are legally shielded from mid-year budgetary reallocations.
- **Tax Rationalization for Contraceptives:** Implement a zero-rated tax status for contraceptives at the import stage and significantly reduce domestic sales tax to improve market penetration and affordability.
- **Frontline Revitalization:** Ensure the Lady Health Worker (LHW) and Community Midwife (CMW) programs have an uninterrupted supply of contraceptives at the household level to prevent frequent service disruptions.
- **Digitized Stock Management:** Deploy a real-time, digitized Monitoring and Evaluation (M&E) system across all health centers to achieve "zero stock-outs" of family planning commodities.
- **Humanitarian Outreach:** Establish a specialized service delivery model to ensure uninterrupted access to reproductive health goods for Internally Displaced Persons (IDPs) and populations in security-challenged regions.

Analytical Framework

The Human Resource (Population) sector encompasses sub-sectors such as Population burden on education system, population pressure on jobs and economy and other similar issues are all addressed within this unified framework.

#	Issues	Cost To Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action By
Policy & Regulatory Issues							
1.1	**Small quantum of fiscal outlays for Family Planning (FP)**	• Pakistan has one of the lowest per capita expenses of Family Planning, amounting to USD 159.7 million in 2024 • On a per capita basis, in FY23-24, the expense stood at PKR 187, substantially low compared to WHO recommended PKR 465 per capita to meet the FP 2030 goals • Of this amount, a maximum of 16% goes to procuring contraceptive medicines[141] • Low per capita expense and low	• Significant enhancement of public sector outlay on FP as % of overall health expense, taking it as near to the recommended PKR 465 per capita as possible • Ensure that at least 25-30% of the FP expenses go towards procurement of medicines	• Increase in FP expenditure from $159 million to at least $350 million (at least) for meeting the national and UNFPA goals	• Increased chances of meeting UNFPA and global contraceptive prevalence and population welfare goals • Increased chances of accessing global funding for FP related goals • Higher % of development expense (as % of total) leading to higher access to contraceptives	• FP expenditure, especially development expenditure portion • Per capital FP expense • Access to global FP finances	Finance Division, MoNHSR&C, Population Welfare Depts (Provinces)

[141] *'Political economy analysis of Family Planning in Pakistan' (2024), Executive Summary, UNFPA, GoP, UKAID*

#	Issues	Cost To Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action By
Policy & Regulatory Issues							
		overall outlay mean lower contraceptive prevalence and access					
1.2	**Low Contraceptive Prevalence Rate (CPR ~34%)**	• Adds 5.6M people • Total Fertility Rate (TFR) at 3.5 vs 2.1 global avg[142]	• Enhance Awareness and Behavioral Change Communication • Strengthen Health Workforce and Service Quality	• Significant increase in budgetary outlays (specifically development budget), as stated above	• Slower population growth rate • Lower TFR • reduced maternal/child mortality	• CPR • TFR • Population growth rate	MoNHSR&C, Population Welfare Depts (Provinces)
1.3	**High adolescent fertility (44 births/1,000 girls aged 15–19)**	• Increased school dropouts • maternal health risks • Inter-generational poverty cycles • Minimal female labor force participation	• Legislative action banning marriage below 18 years of age • Policy incentive, like monetary incentive for late marriages • Youth-friendly FP clinics • SRH in schools • Digital platforms for adolescents	• Would mainly require legislative action	• Delayed marriage/childbearing • Increased female education	• Adolescent fertility rate • School re-enrollment rate	MoNHSR&C, Population Welfare Depts (Provinces)

[142] *https://www.un.org/development/desa/pd/sites/www.un.org.development.desa.pd/files/undesa_pd_2025_wfr_2024_final.pdf*

#	Issues	Cost To Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action By
Policy & Regulatory Issues							
1.4	**Unmet need for contraception (~17%)[143] and contraceptive quality**	• Demand for contraceptives by 9 million+ married women go unmet • unwanted pregnancies • Burden upon the public sector healthcare infrastructure	• Ensuring contraceptive supply to all health centers and hospitals across Pakistan • Public sector procurement of contraceptives should not be based on 'lowest price' principle that results in procurement of lower quality contraceptives	• To reach the required 60% contraceptive prevalence rate by 2030 (under FP 2030 goals), Pakistan will need to spend approximately $200 million per year[144]	• Reduced unplanned births • Improved reproductive autonomy	• Unmet need % • Contraceptive Access Index	MoNHSR&C, Population Welfare Depts (Provinces)

[143] *https://www.fp2030.org/app/uploads/2023/08/Pakistan-2022-Summary-Brief-and-Handout.pdf*
[144] *Based on estimations in 'Adding it up: Costs and Benefits of meeting the contraceptive and maternal and newborn health needs of women in Pakistan' (2019), Guttmacher Pakistan*

#	Issues	Cost To Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action By
Policy & Regulatory Issues							
1.5	**Absence of legal guarantee for accessing FP services and lack of Pre-Marital Counseling**	• Family Planning & Reproductive Health Rights (FP&RH) bills guarantee FP/RH services in all public and private health facilities. These provide a legal guarantee of access to FP/RH services and ensuring universal coverage • Pre-marital counseling on FP is very limited or non-existent in Pakistan	• Only Sindh and KP have passed the said legislation while Punjab and Baluchistan need to be pressed to pass it • Aside from legislation, ensure availability of services through a good M&E system • Legalize pre-marital FP Counseling for couples	• Legislative process requirement rather than monetary outlays	• Legal enactment related to guaranteed FP access across the federal and all provincial governments • Legal enactment related to mandatory pre-marital Counseling	• All Pakistan covered under guaranteed FP services access laws • Mandatory pre-marital counseling law and increase in couples availing counseling	MoNHSR&C, Population Welfare Depts (Provinces)
Access to Finance							
2.1	**Limited domestic Family Planning financing for contraceptives**	• Significant number of contraceptive supplies is donor-dependent[1]	• Raise FP share to 0.1% of GDP • Ring-fenced allocations	• The proposed increased in FP related expenditures to $350 million or more, with	• A floor on outlay of public sector procurement of contraceptives, i.e., surety of demand to	• FP goods and services procurement budgets	MoF, MoPD, MoNHSR&C, Population Welfare Depts (Provinces)

#	Issues	Cost To Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action By
Access to Finance							
		• Stock-outs common	• Local production incentives	suggestion to obligate at least 30% of that expense on buying FP related medicines and services, should itself act as a powerful price incentive/signal for domestic level production of contraceptives	incentivize domestic production • Reduced donor reliance	• Contraceptive production in Pakistan • Per year procurement expense	
Human Resource Issues							
3.1	**Frequent disruptions to the Lady Health Workers (LHWs) and Community Midwives (CMWs) Programmes**	• The LHW and CMW initiative are the major programs and avenues for effective FP communication and service delivery across Pakistan. But their service structure remains uncertain, the fiscal support is	• Given that they are at the front line of the battle against high population growth rate, both the federal and provincial governments need to come up with a permanent working structure for LHWs and CMWs that	None	• Continual provision of services by LHWs and CMWs without any disruption • Timely payment of salaries and complementaritie s • Provision of required tools for efficient FP services	• Bed occupancy; delivery wait times	MoH, Provincial DoHs

#	Issues	Cost To Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action By
Human Resource Issues							
		often lacking, and they often go without payments for months, thus affecting the quality and quantity of FP service delivery across Pakistan[145]	ensures uninterrupted supply of their services • Ensure that LHWs and CMWs are equipped timely with required training for FP counseling as well as required medicines pills, injectables at the household and community level				
3.2	**Lack of Monitoring and Evaluation (M&E) for better data quality and wide-spread reach of FP goods and services**	• There have been frequently reported instances of manipulated and inflated data, and on-ground failure of FP goods and services failing to reach people despite reports to	• M&E should be an integral part of Pakistan's FP efforts. The M&E framework laid out in Ministry of Planning's project management handbook should be applied practically, and	• Can be financed from stock of PSDP funds already earmarked	• Better quality data with nationwide coverage • Regular updates, at least yearly • Regular M&E reports	• Amount of independent M&E verification • Data quality, coverage and frequency	• Planning Ministry, MoNHS&R, Population Welfare Depts, federal and provincial level

[145] *The non-payment of their regular salaries, for example, led to accruing of more than Rs. 10 billion in arrears between 2012-16. Source: 'Lady Health Worker Program, Pakistan' (2019), Oxford Policy Management*

#	Issues	Cost To Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action By
Human Resource Issues							
		the contrary in papers. The absence of a good, reliable M&E mechanism means that data reporting is open to manipulation, affecting Govt's efforts at viable FP[146]	third-party validations should be the norm				
Market Access and Development							
4.1	**Urban and informal expansion plus security related issues affecting access to FP goods and services**	• Annual urban population growth rate 3%[147] • Rising Informal settlements • Difficulty in access to FP services and products in challenging areas like ex-FATA, interior Baluchistan and Interior Sindh	• Mapping urban density and expansion for ensuring access and supply • Comprehensive program for security-challenged areas, including access of FP goods and services to families who emigrate from	• Can be covered inside the proposed expenditure increase to $350 million, as proposed above	• Better mapping of services reaches in urban, peri-urban and informal settlements in the country • Improved access of FP goods and services in security challenged areas	• Access to FP services and goods • Number of families availing FP goods and services in difficult to reach areas	MoNHSR&C, Urban Units, Interior Ministry, LG Depts

[146] *'Political economy analysis of Family Planning in Pakistan' (2024), UNFPA, GoP, UKAID*
[147] *https://thefridaytimes.com/19-Oct-2024/urbanisation-challenge-housing-and-infrastructure-in-pakistan-s-major-cities*

#	Issues	Cost To Economy	Reform Proposals	Investment Cost	Expected Outcome	Measurable KPIs	Action By
Market Access and Development							
			those areas (IDPs)				
Tax Structure							
5.1	**High tax rates for contraceptives**	• The 18% sales tax on contraceptives makes them unaffordable to a large portion of population that needs it, especially top-quality imported contraceptives like long-acting reversible contraceptives (LARCs)	• Zero-rated structure for contraceptives, at import stage, while significant reduction of sales tax % on domestic sales in order to make these affordable	• Change in FBR taxation rules	• Less expensive contraceptives • Increasing access due to lower prices • Increase in consumption of contraceptive medicines due to lower prices	• Prices of contraceptives • Effective sales tax rate • Comparative consumption percentages	MoNHSR&C, Ministry of Finance, Federal Board of Revenue (FBR)

Investment Summary

Year-wise Investment Summary *(PKR Billion)*

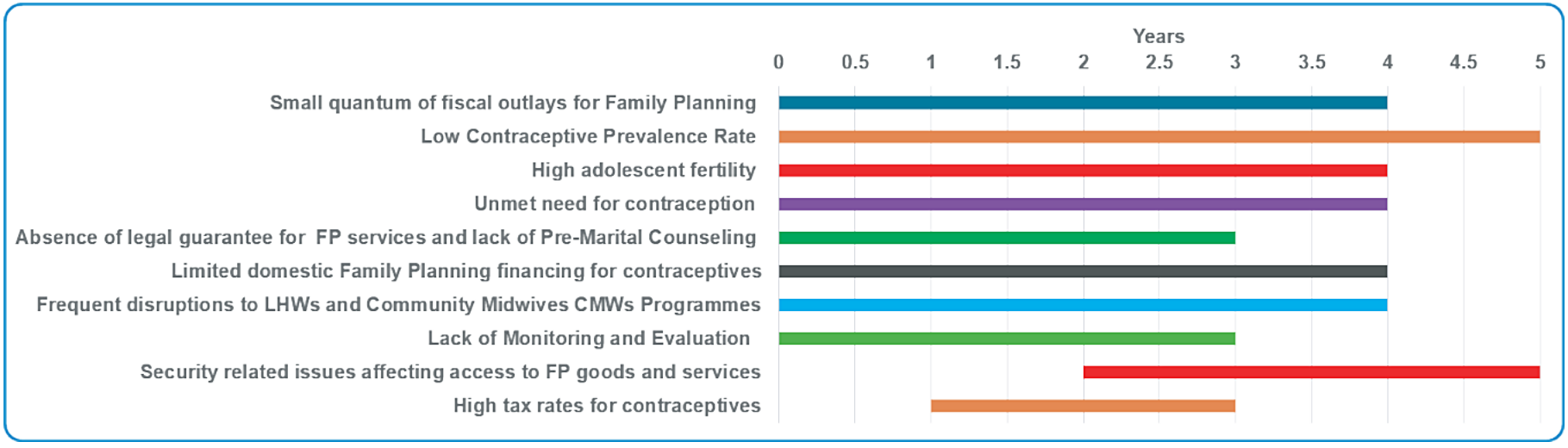
Category	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Policy and Regulatory Issues						**376.6**
1.1 Small quantum of fiscal outlays for Family Planning (FP)	10	15	20	26.3	26.3	97.6
1.4 Unmet need for contraception (~17%) and contraceptive quality	55.8	55.8	55.8	55.8	55.8	279
Access to Finance						-
Human Resource Issues						-
Market Access and Development						-
Tax Structure						-
Total	**65.8**	**70.8**	**75.8**	**82.1**	**82.1**	**376.6**

**Proposed interventions based investment estimates*

Investment Multiplier

The multiplier impact of investment in Pakistan differs by different studies. Majority of studies have been done in context of PSDP's impact since it tends to be the largest portion of investment on aggregate (there is little in terms of estimates of private investment multiplier). However, there is no unanimity in terms of the size of multiplier. Almost all studies put it below 1, between 0.5 and 1. We will use 0.6 as the multiplier of investment based on these studies. Therefore, the investment multiplier for this sector, Population Planning, is PKR 226 billion.

Year-wise Interventions in Population Sector



Conclusion

In conclusion, Pakistan’s demographic trajectory represents a critical race against time, where a youth-led "demographic dividend" can only be realized through an immediate increase in fiscal commitment to 0.1% of GDP. Addressing the unmet needs requires a dual approach: modernizing the legislative framework to include mandatory pre-marital counseling and age-at-marriage reforms, while simultaneously removing tax barriers on essential reproductive health goods. By stabilizing the frontline LHW and CMW programs and integrating digital oversight, Pakistan can transition from unsustainable population growth to a rights-based, balanced equilibrium that aligns with its national economic capacity.

CHAPTER 5

Savings, Projected Financing Module & Employment

This plan's twenty-one sectoral chapters identify structural impediments, propose targeted reforms, and estimate the investment required to unlock each sector's growth potential. This chapter presents what those reforms deliver in aggregate: fiscal savings from rationalizing public expenditure, and employment generation from the resulting growth trajectory. These are not peripheral outcomes, they are the plan's direct and measurable returns.

Savings

After analyzing all 800 federal PSDP projects, 91 were identified as candidates for closure or wind-up on grounds of duplication, constitutional misalignment with post-18th Amendment responsibilities, absence of demonstrable public benefit, or negligible completion prospects given historical funding patterns. Details are provided in Annex D.

These savings represent one of several identified financing sources for the plan's Rs. 18.5 trillion investment requirement. Other sources include rationalization of current expenditure, reduced public sector credit uptake freeing resources for private sector borrowing, additional revenue from tax base broadening, and private investment mobilized through Public-Private Partnerships and BOT arrangements. If the four-criteria screening framework applied in this review is institutionalized as a permanent PSDP governance practice, aggregate savings over the plan period could exceed PKR 1.5 trillion.

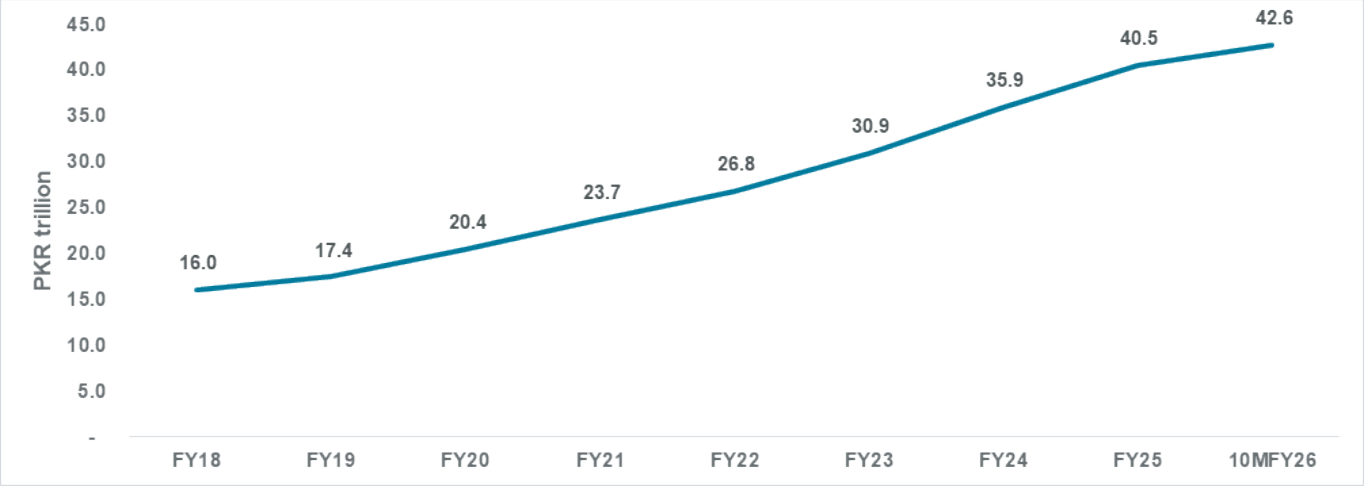
Released resources should be directed toward the plan's highest-return uses: the export finance facility, SME and agricultural credit, and technical and vocational training, the three areas where financing gaps most directly constrain the sectoral growth targets.

Investment Financing

The Five Year Plan envisions a total investment outlay of PKR 18.5 trillion based on proposed reforms across priority sectors of the economy. Premised on an investment multiplier of 0.6 consistent with the weight of empirical studies on Pakistan's economic structure. This investment is projected to generate PKR 11.1 trillion in additional economic output, amplifying aggregate income and demand across successive rounds of expenditure. The multiplier reflects both the short-run stimulus effects of capital injection and the gradual attenuation of those effects over the medium to long run, yielding a conservative but credible estimate of investment's macroeconomic impact.

The financing of this investment does not require the mobilisation of new or additional money. Pakistan's broad money supply (M2) has expanded substantially over recent years, growing from PKR 15.997 trillion in June 2018 to PKR 42.635 trillion by April 2026 — a rise of 167 percent (figure 14). As GDP continues to grow over the Plan period, the monetary base will expand commensurately, generating the liquidity required to finance the proposed investment from within the existing trajectory of money supply growth. No extraordinary monetary expansion is, therefore, envisaged or necessary.

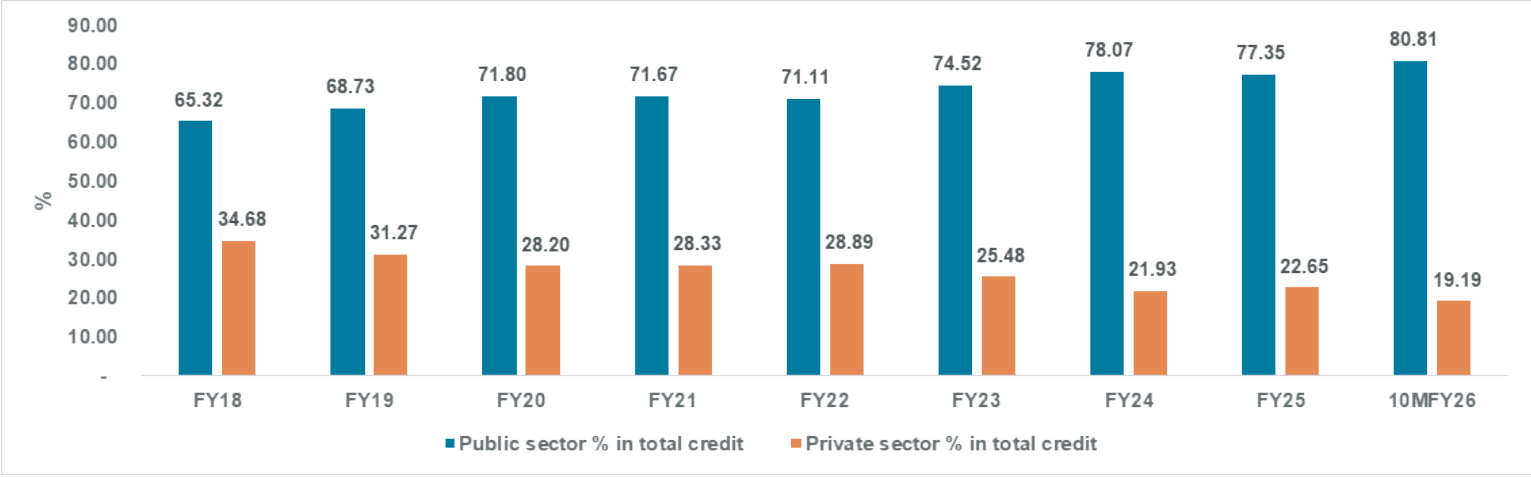
Figure 14: Trend of Broad Money (M2) over the years



Source: SBP

Further headroom for private investment financing is likely to be created by the projected decline in public sector credit demand. Public sector borrowing has risen from 65 percent of total credit stock in June 2018 to 81 percent by April 2026, correspondingly crowding out private sector access to credit (figure 15). To illustrate the scale of this displacement: had the public sector's share of total credit remained at 60 percent over this period, an additional PKR 42 trillion would have been available to the private sector; had it been held at 50 percent, the available private credit would have been higher by PKR 71 trillion. As fiscal consolidation progresses under the Plan and public sector borrowing recedes, a significantly larger share of the total credit stock will become available for private sector uptake, providing ample financing capacity to support the investment targets set out in this Plan without recourse to new monetary creation. The estimated savings generated through rationalizing PSDP can be channeled into financing investments along with Public Private Partnership model and investments by private sector itself.

Figure 15: Public vs Private sector borrowing, as % of total credit stock: *June 2018 to April 2026*



Export-Led Growth: The Binding Thread

Every sectoral chapter in this plan connects, directly or indirectly, to the export-led growth strategy set out in Chapter 3. Energy reforms reduce the cost of production for exporters. Tax rationalization removes distortions that penalize formal, export-oriented firms. Agricultural and food processing investments expand the goods export basket. IT and digital economy reforms accelerate services export growth. Human capital investments build the workforce that makes higher-value exports possible. The sectoral analysis is not a collection of independent prescriptions, it is a coordinated reform programme in which each intervention reinforces the others, and all point toward the same macroeconomic objective: goods exports rising from $32 billion to $78 billion by FY31, services exports from $10 billion to $33 billion, remittances from $40 billion to $60 billion, the trade deficit closing to zero, and the current account turning positive at 5 percent of GDP.

Achieving this requires raising the investment-to-GDP ratio from 14 percent to 25 percent — the level at which, on EBPD's estimates, an 8.5 percent growth rate becomes sustainable and GDP reaches $688 billion by FY31. The consequence of that growth, at Pakistan's current poverty levels above 40 percent, would be a sustained reduction in poverty through rising real incomes and the expansion of productive employment.

Job Creation Potential

To complement these results, it is important to note that the employment gains are not assumed uniformly but are distributed across sectors in line with their respective growth potential, labor intensity, and structural transformation effects. Sectors with higher value addition and stronger linkage effects are expected to contribute disproportionately to job creation, while productivity-enhancing reforms are likely to shift employment toward more skilled and formalized opportunities. This sectoral differentiation underscores that the projected employment expansion reflects not only higher aggregate demand but also improved efficiency and reallocation of labor across the economy.

Given the comprehensive set of interventions proposed across the 21 sectors of the economy, the analysis suggests that their implementation would generate broad-based and positive macroeconomic outcomes. In particular, these reforms are expected to accelerate GDP growth, improve productivity, and significantly expand employment opportunities. More importantly, the cumulative effect of these interventions would be a strengthening of underlying economic fundamentals, placing the economy on a more stable and sustainable trajectory compared to the current baseline.

In terms of employment generation, the estimates are derived using a conservative aggregate employment elasticity of 0.5 with respect to GDP growth, applied across the sectoral growth projections developed in this study. This approach translates projected output expansion into corresponding labor market absorption across key sectors. The results are presented in Table 6.

On this basis, total employment is projected to rise from 78.10 million to 98 million over the five-year horizon, implying the creation of approximately ~20 million additional jobs during the period.

Table 7: Year-wise projections of additional jobs created at various growth rates

Year-wise Additional Job Creation in Sectors at various GDP Growth Rates, using *0.5%* Employment Elasticity								
Sectors	**Current Employment**	**Add'l. Jobs at 4.5% GDP growth**	**Add'l. Jobs at 5.5% GDP growth**	**Add'l. Jobs at 6.5% GDP growth**	**Add'l. Jobs at 7% GDP growth**	**Add'l. Jobs at 8% GDP growth**	**Add'l. Jobs at 8.5% GDP growth**	**Cumulative Add'l Jobs by FY31**
Agriculture *(incl. Livestock)*	32	32.72	33.62	34.71	35.93	37.36	38.95	6.95
Housing & Construction	7	7.42	7.9	8.49	9.17	10	11	4
Services *(Engineering, Logistics, Tourism & Health)*	16.82	17.2	17.67	18.25	18.88	19.64	20.47	3.65
Textile & Apparel	15	15.34	15.76	16.27	16.84	17.51	18.26	3.26
Digital Economy	3.2	3.27	3.36	3.47	3.59	3.74	4.23	1
Food	1	1.02	1.05	1.08	1.12	1.17	1.22	0.22
Gems & Jewelry	0.5	0.51	0.53	0.54	0.56	0.58	0.61	0.13
Human Resource Development	0.5	0.51	0.53	0.54	0.56	0.58	0.61	0.11
Leather	0.5	0.51	0.53	0.54	0.56	0.58	0.61	0.11
Pharmaceutical	0.4	0.41	0.42	0.43	0.45	0.47	0.49	0.09
Fisheries	0.38	0.39	0.4	0.41	0.43	0.44	0.46	0.08
Mines & Minerals	0.35	0.36	0.37	0.38	0.39	0.41	0.43	0.08
Energy-*Electricity*	0.2	0.2	0.21	0.22	0.22	0.23	0.27	0.08
Climate Change	0.13	0.13	0.14	0.14	0.14	0.15	0.19	0.06
Gas & Petroleum	0.12	0.13	0.13	0.13	0.14	0.14	0.15	0.03
TOTAL	**78.1**	**80.1**	**82.6**	**85.6**	**89**	**93**	**98**	**19.85**

Projected Financing Module aligned with the Proposed Reforms for Growth

Pakistan's proposed growth transformation targeting real GDP growth rising from 5.5% in FY27 to 8.5% by FY31 is financeable. The current account deficit of 1% of GDP in FY26 turns to a +5% surplus by FY31, anchored by workers' remittances growing from $40 to $60 billion and export growth steadily outpacing imports. A conservative external financing mix of MDBs, Eurobonds, bilateral loans, privatization, and FDI contributes $22–29 billion annually, and after debt repayments of $22-25 billion on average per year, the net position moves from a minor surplus in FY27 to a $46 billion surplus by FY31. FX reserves, which are projected to hold at $17 billion in FY26, are on track to more than triple to $63.5 billion by FY31. Additional upsides: Diaspora and Growth Bonds, remittance formalization, and $14 -15 billion stuck in MDBs' approved funds pipeline, are not reflected in these numbers. The binding constraints are not financial but of critical importance, for instance: full implementation of proposed reforms including energy and tax rates reductions, reducing cost of doing business (CoDB), ensuring ease of doing business (EoDB), and reducing government borrowing's share of domestic credit are what will determine whether the growth path is realized or we keep treading on the same vulnerable path.

Table 8: Projected Financing Module Aligned witht the Proposed Reforms for Growth

Indicator	FY26 (Base)	FY27	FY28	FY29	FY30	FY31
A. CURRENT ACCOUNT (USD Billion)						
Exports of Goods	30	39	46	55	65	78
Exports of Services	10	13.7	17	23	29	33
Imports of Goods	63	67	73	79	84	88
Imports of Services	12	14	15	18	21	23
Trade Balance (Goods & Services)	**-35**	**-28.3**	**-25**	**-19**	**-11**	**0**
Workers' Remittances (incl. Inflows from Amnesty)	40	44	48	52	56	60
Current Account Balance / GDP (%)	**-1%**	**0.1%**	**2%**	**3%**	**3.3%**	**5%**
B. EXTERNAL FINANCING SOURCES (USD Billion)						
Multilateral Dev. Banks (MDBs)	—	3.5	4.5	4.8	5	5
Bonds (Eurobonds / Capital Markets)	—	2.7	1.5	1	1.4	2
Bilateral Loans	—	0.6	0.5	0.5	0.5	0.5
Privatization Proceeds	—	0.36	0.38	0.4	0.42	0.5
Exports of Goods — Incremental BOP	—	4.6	4.6	4.6	4.6	4.6
Exports of Services — Incremental BOP	—	5	5.5	6.5	7.5	8.5
Workers' Remittances	—	3.5	3.5	4	4	5
Foreign Direct Investment (FDI)	—	2.5	2	2.5	2.5	3
TOTAL EXTERNAL FINANCING	**—**	**22.8**	**22.5**	**24.3**	**25.9**	**29.1**
C. FINANCING SURPLUS / (SHORTFALL) (USD Billion)						
Total Exports (Goods + Services)	40	52.7	63	78	94	111
Total Imports (Goods + Services)	75	81	88	97	105	111
Trade Balance (G&S)	-35	-28.3	-25	-19	-11	0
Add: Workers' Remittances (incl. Inflows from Amnesty)	40	44	48	52	56	60
Net Current Position (Trade Bal + Remittances)	**5**	**15.7**	**23**	**33**	**45**	**60**
Additional External Financing (MDBs+Bonds+Bilateral+Privatization+FDI)	—	9.66	8.88	9.2	9.82	11
i) TOTAL (Net Current + Additional Financing)	**—**	**25.4**	**31.8**	**42.2**	**54.8**	**71**
Avg. Repayments	**—**	25	25	25	25	25
ii) TOTAL SURPLUS / (SHORTFALL)	**—**	**0.4**	**6.8**	**17.2**	**29.9**	**46**
iii) FX Reserves	**17.5**	**18**	**24.3**	**34.7**	**47.4**	**63.5**
D. MACRO CONTEXT (Growth Transformation Path as per ESP & FYDP)						
Nominal GDP (USD Billion)	**452**	**491**	**535**	**582**	**632**	**688**
Overall Real GDP Growth Rate (%)	**4.2%**	**5.5%**	**6.5%**	**7.0%**	**8.0%**	**8.5%**
Agriculture (22% of GDP)	3.6%	4.5%	5.2%	5.6%	6.3%	6.8%
Industry (20% of GDP)	4.3%	5.8%	7.0%	7.5%	8.6%	9.0%
Services (58% of GDP)	4.8%	6.2%	7.2%	7.9%	8.9%	9.6%

CONCLUSION

Pakistan's historical GDP growth trajectory has been erratic, with significant deviations from a sustained growth path. However, there is no reason to assume that this pattern must persist into the future. Getting Pakistan's economy onto a sustained, high-growth trajectory requires that the structural weaknesses afflicting its economy – and specifically its key productive sectors, be systematically addressed. This document is aimed precisely at that purpose. Rather than focusing solely on macroeconomic aggregates, it identifies twenty important sectors and conducts a detailed diagnostic of the issues undermining their performance. The sectors are then further sub-divided by 'high impact' and other sectors based on various criterions like size of market and other domestic plus international considerations.

The document not only identifies these issues but also proposes targeted reforms and solutions, while estimating the investment required to complement existing government-level efforts. This investment, in turn, would generate significant spillover effects through investment multipliers, propelling the economy toward a growth rate of six percent and above. As per the calculated sectoral requirements, the estimated quantum of investment exceeds Rs. 18.5 trillion, while multiplier spillovers are projected to exceed Rs. 11.1 trillion over the first five years. Together, as shown above, these would help transition Pakistan's economy onto a high-growth trajectory and improve its critical macroeconomic indicators, whereby there is a good possibility of not only generating ~20 million jobs but also reaching zero trade deficit, thereby markedly improving Pakistan's economic fundamentals and economic health.

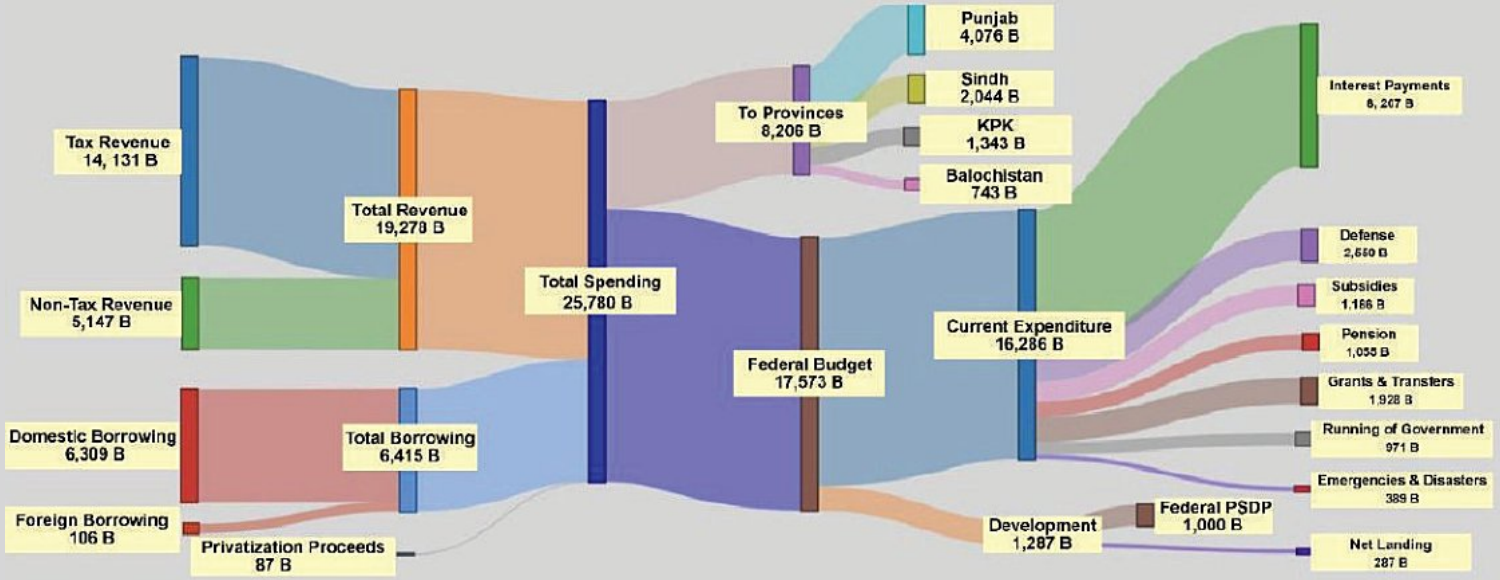
Financing such a substantial investment outlay will, of course, remain a challenge, but not an insurmountable one. A comprehensive analysis was conducted to identify potential financing sources. For instance, the federal PSDP, containing a list of 800 projects, was thoroughly reviewed — a first for any five-year economic plan in Pakistan. This analysis found that a significant number of projects on the list offer little or no discernible benefit to the economy and should be discontinued. Estimated savings from implementing this recommendation would exceed Rs. 1.5 trillion. Additional avenues, including public-private partnerships, rationalization of current expenditures, and increased private sector investment enabled by regulatory reform, would further ease the task of mobilizing the required investment. In doing so, the economy would be set on a sustained high-growth GDP trajectory of six percent and above.

The binding constraints are not financial but of critical importance, for instance: full implementation of proposed reforms including energy and tax rates reductions, reducing cost of doing business (CoDB), ensuring ease of doing business (EoDB), and reducing government borrowing's share of domestic credit are what will determine whether the growth path is realized or we keep treading on the same vulnerable path.

In conclusion, if the reform proposals outlined in the individual chapters are implemented consistently and without interruption, Pakistan's economy stands poised for a new era – one in which its long-standing structural challenges would progressively be overcome.

ANNEX A

Budgetary Estimates of Federal Budget FY26



Source: Annual Budget Statement FY26, MoF
**Adapted from ©Adil Najam-Budget Diagram*

ANNEX B

Projected Growth of Exports (in $ billion) at various growth rates					
	FY 26-27	FY 27-28	FY 28-29	FY 29-30	FY 30-31
GDP Growth at 4-5%	33.55	35.17	36.86	38.64	40.51
GDP Growth at 5-6%	36.92	42.59	49.14	56.69	65.39
GDP Growth at 6-7%	37.26	43.38	50.51	58.80	68.47
GDP Growth at 7-8%	38.35	45.96	55.08	66.00	79.10

Projected Growth of Imports (in $ billion) at various growth rates					
	FY 26-27	FY 27-28	FY 28-29	FY 29-30	FY 30-31
GDP Growth at 4-5%	63.07	67.42	72.08	77.05	82.36
GDP Growth at 5-6%	66.29	74.49	83.69	94.04	105.66
GDP Growth at 6-7%	64.22	69.89	76.07	82.80	90.11
GDP Growth at 7-8%	70.09	83.27	98.92	117.52	139.62

Projected Import Export ratios at various growth rates					
	FY 26-27	FY 27-28	FY 28-29	FY 29-30	FY 30-31
GDP Growth at 4-5%	1.88	1.92	1.96	1.99	2.03
GDP Growth at 5-6%	1.80	1.75	1.70	1.66	1.62
GDP Growth at 6-7%	1.72	1.61	1.51	1.41	1.32
GDP Growth at 7-8%	1.83	1.81	1.80	1.78	1.77

ANNEX C

Table 7: Countries Having High Trade Deficit with Pakistan

Sr #	Country	FY25 ($Million)	YoY Change (5)
1	**China**	-13835.73	28
2	**U. A. E. Dubai**	-4531.46	37
3	**Qatar**	-3375.40	6
4	**S. Arabia**	-3049.99	-19
5	**Indonesia**	-2632.21	40
6	**Singapore**	-2011.50	-8
7	**Kuwait**	-1565.39	-5
8	**Brazil**	-1108.07	407
9	**Japan**	-1017.05	23
10	**U. A. E. Abu Dhabi**	-948.38	32
11	**South Korea**	-875.05	26
12	**Oman**	-632.22	29
13	**Hong Kong**	-580.65	9

Sr #	Country	FY25 ($Million)	YoY Change (5)
14	**Malaysia**	-566.61	55
15	**Morocco**	-520.91	-10
16	**Thailand**	-498.43	-13
17	**Australia**	-402.65	-1
18	**Türkiye**	-378.96	145
19	**U. A. E. Fujairah**	-323.07	80
20	**South Africa**	-314.96	12
21	**Kenya**	-306.48	2
22	**Switzerland**	-301.25	22
23	**Argentina**	-291.22	500
24	**India**	-219.15	8
25	**Nigeria**	-193.06	-29

ANNEX D

Ministry/Division	Remaining Expense (Rs. millions)	Explanation/Reason
BOI	291	A CPEC Centre of Excellence, established a decade earlier, already exists since with surplus manpower that can easily look after this aspect without any further expense.
BOI	296	The regulatory mapping exercise has already been completed with the help of a foreign Consultant and recommendations are regularly put up to the PM Office. Moreover, regulatory hindrances can easily be a identified through coordination with, for e.g, various Chambers of Commerce and taking recourse to earlier studies like PIDE SLUDG series which covers regulatory issues comprehensively
BOI	698	Every province has their own SEZ Authority despite not much coming out of SEZs in terms of output and contribution to local and national economy. It does not make sense, then, to have yet another SEZ-related establishment. There is little logic in establishing one at the federal level. At best, the center can play a coordinating role, which can easily be achieved via available human resurc at BOI
Cabinet Division	70,000	Planning Commission already has a unit to deal with SDGs. There does not seem to be any need for another one. Note- Need to clarify whether this amount has already been earmarked or not?
Climate Change Division	1,218	This needs to looked at in terms of what kind of 'capacity building' is being initiated and whether already existing platforms (like PCRWR) can be utilized for this purpose. Normally such 'capacity building' exercises do not produce any desired or significant results
Climate Change Division	916	Strengthening of Technical Capacities is a vague term. What technical capacity is being strengthened and for what reason?
Climate Change Division	450	Difficult to justify 450 million rupees merely for promotion of green skills and entrepreneurship.
Commerce Division	3,785	Why can't the existing Expo centers be utilized? Alos, such projects should be left at the discretion of provincial governments with federal government acting as a facilitator
Communication Division	37	This appears to be a private institute. On its website, one can find the statement that institutes have 'unlimited resources'. Why are public funds needed for construction?
Communication Division	75,908	Given the present geopolitical circumstances, the very slow pace of its development and other similar initiatives (like road infrastructure building under CAREC), this project needs analysis regarding its efficacy and necessity
Communication Division	10,446	Seems to be an overlap with the Khyber Pass Economic Corridor and CAREC financed road projects
Defense Division	549	ETL has been working at NUST since 2012. So not sure what this project is about? Also, NUST has gotten significant public development funds over the years but there is no indication of any public benefit of this investment.
Defense Division	832	The title does not inform what this substantial allocation is about? What research is to be undertaken, for what purpose and why does it need such a large outlay? Looks dubious
Defense Division	435	This needs to be looked at in context of already available accommodation and the traffic at each airport. For example, is air traffic at Turbat airport to the extent that it requires expenses on accommodation
Defense Division	2,000	Advanced research facilities like these already exist at universities like NUST which are being subsidized with public funds. This is a needless project.
Defense Division	575	There is no need for a separate Cell; the human capital horde for CPEC projects, like CPEC Center of Excellence, can handle this
Establishment Division	891	Why the need for building for building exclusive Estab housing facilities? Why not live on rented premises whereby Govt pays the rent like for human capital in other departments?

Ministry/Division	Remaining Expense (Rs. millions)	Explanation/Reason
Establishment Division	3,000	The cost sounds very high. NAB recently implemented a paperless office working system that reportedly cost Rs. 150 million. Cost needs revision
Federal Education & Professional Training Division	36	Why can't the existing facilities (physical building, labor force, etc.) be utilized for this purpose?
Federal Education & Professional Training Division	1,142	As per PBS and other official EDU stats, ICT schools already have the requisite facilities in the country, topping the facility provision rankings. There does not seem to be need for additional expense in that case
Federal Education & Professional Training Division	360	There is no mention of what is this money is earmarked for? Is it for training or something else? And what output was realized due to similar expenses in the past?
Federal Education & Professional Training Division	156	There seems to be an overlap between this and the above mentioned program of provision of basic facilities in schools (S. No 20). Not clear how the two are different?
Federal Education & Professional Training Division	3,060	Despite earlier provision of significant grants over the years and decades, NAVTTC has yet to produce any top-of-the-line trained workforce. How will this grant ensure transformation or improvement?
Federal Education & Professional Training Division	4,341	In the presence of plethora of training institutes like NAVTTC and others and their already allotted programs/courses, difficult to see the need for this initiative
Federal Education & Professional Training Division	11,750	Scholarships are already being provided via other sources (like HEC) and other programs/projects. Why then the need for such a large fund whose stated aim is to do the same, i.e, provide scholarships
Federal Education & Professional Training Division	277	Sounds very similar to the other project (ECE, at S. No. 22). Difficult to see what's the difference between the two?
Federal Education & Professional Training Division	31,500	In the presence of thousands of schools at elementary, primary and secondary levels, on which huge amounts are spent every year in terms of teacher skills upgradation, infrastructure, capacity building, etc., the basis of spending such huge amounts on Daanish schools need to be debated. Are they substitutes for the traditional school system? If so, then why do we need these schools?
Finance Division	330	Not clear what this expense is about? Is it for establishing a new academy or is it some other expense under this head? In case of new academy, why not utilize the many public buildings that are not in use?
Finance Division	695	Not clear what this expense is about? What kind of billing is to be done online? Why not use several of the already established platforms like SBPs RAAST?
Finance Division	23,453	Going by the history of 'financial inclusion' in Pakistan, for which significant amounts of external loans were contracted (including this one), this will be a total waste. Why not use the already existing traditional financial avenues for this purpose through alteration of regulations governing loans to females?
Provinces & Special Areas	815,983	Going through the list of these programs, one gets the impression that a lot of these could be easily met through own resources of the provinces without recourse to federal funds. Therefore, these need a careful review in terms of allocate finances and the source of financing

Ministry/Division	Remaining Expense (Rs. millions)	Explanation/Reason
HEC	531	HEC already is running a parallel program of similar nature, titled ' *Academic and Research Linkages with different countries/ agencies under Bilateral Agreement*', upon which a considerable amount has already been spent. Why then is there need for this project?
HEC	6,382	Faculty Development' programs over the years have provided no noticeable improvement in teachers' quality. Their utility is questionable. Also, these kinds of programs should now b financed from provincial resources.
HEC	200	Fulbright scholarships are fully funded by USAID. It is therefore surprising that HEC ended up spending Rs. 3,859 million on this program and intends to spend Rs. 200 million more. It is not clear for what purpose do they intend to spend this amount?
HEC	1,375	IT Industrial Innovation' is a very vague term. What does it imply? Is it part of industrial policy, industry upgradation or something else? Similarly vague is 'strengthening' of Islamia University. In what sense?
HEC	1,205	Why this separate category when HEC already offers 5,000 indigenous scholarships for indigenous PhD's under the project titled ' Indigenous PhD fellowship for 5000 Scholars, HEC (Phase-II)'?
HEC	612	Pakistan Sports Board (PSB) gets ample funds for organizing these kinds of activities. This can be done without HEC
HEC	702	This is vague and questionable allocation. Why would PhD scholars need such a huge outlay for introducing new 'technology applications'? Also, what technologies have been introduced till now after expense of more than Rs. 2 billion under this project? Moreover, HEC already is spending sizeable amounts on upgrading EDU facilities across the country. Why can't this initiative be covered under that?
HEC	38,000	All these allocations, mostly earmarked under the head of 'Strengthening' campuses are basically provincial projects that should be pursued by provincial governments from their own resources, especially in lieu of 18th Amendment.
HEC	1,768	This should be PSB prerogative rather than HECs
HEC	2,049	Are the already established Govt EDU facilities,alongwith private ones, not catering to this aspect? There seems to be no logic for this
HEC	9,844	Vague reference to Higher EDU 'development'. What does it aim at? And how is this different from all other HEC development projects/programs?
HEC	3,403	Nano tech centers and research already exists at various universities in Pakistan, like NUST. There is no logic in establishing a new one. If research is sought, a grant could be given to institutes rather than establishing a whole new institute
HEC	3,188	Again, any research sought in this field should ideally be a grant for research purposes for already established computing facilities like FAST
HEC	4,269	Difficult to comprehend what HEC has to do with a manufacturing initiative? If there has to be something like this as a public policy, Ministry of Industries should handle it. And what exactly is being aimed in terms of manufacturing (i.e, manufacturing what, where and why?). Why can't the manufacturing be done at private level?
HEC	1,202	What kind of 'growth center' is this and for what purpose is this being established? Vague, undefined title and unexplained project. If it is about economic growth, then there is absolutely no need for such an initiative
HEC	976	There is little or no logic to this allocation. Research and innovation related grants are already being doled out under different heads from HEC and other avenues. This is just a favor to NUML
HEC	4,999	No need for this separate allocation as around Rs. 38 billion already earmarked under the same 'strengthening' head (S.No. 39 above)
Housing & Works	665	This kind of work should be caried out by provincial governments
Housing & Works	3,389	This work should be caried out by provincial governments

Ministry/Division	Remaining Expense (Rs. millions)	Explanation/Reason
Housing & Works	133	Needless expense. Why can't there be hired accommodation for ministers?
Housing & Works	253	This work should be caried out by provincial governments
Housing & Works	5,900	These kinds of works should be caried out by provincial governments from their resources since it benefits their population. Federal Govt should be a facilitator. At best, it should help provincial governments with grants rather than directly investing and owning such large projects
Housing & Works	1,895	For an entity that confers little or no advantage in terms of economic development, this outlay is questionable and illogical
Industries & Works Div	183	There was absolutely no need for a new public ally owned electricity production initiative (on which Rs. 3.4 billion have already been spent) given that we already have surplus production facilities by at least 20,000 MW and other public sector production plants (GENCOS) have already been phased out or are in the process of being privatized
Industries & Works Div	235	This kind of production could easily have been taken up by the private sector
Industries & Works Div	1,902	Hard to understand the logic of establishing a SEZ in Lasbela when other SEZs in Pakistan and Baluchistan (like Gwadar) are hardly utilized and lack services, plus contribute little to economic growth in Pakistan
Industries & Works Div	292	The utility of establishing such facilities when such facilities are already present at public and private sector research institutes (NCRA, TUSDEC, INTECH, Hafeez Tech, etc) is questionable. Why couldn't the already established facilities be utilized/?
Industries & Works Div	287	What kind of 'support' is required for an already established and mature industry like Dental and Surgical instruments so as to exact a Rs. 720 million expense by federal government?
Industries & Works Div	316	Vague and questionable as there is no logical explanation of how this amount would 'strengthen' the whole engineering industry
Industries & Works Div	1,061	Needless and illogical expense; SMEs and large industries require the right environment (like less regulation and infrastructure), not 'facilitation' centers. The ministry has enough manpower at its disposal to 'facilitate' SME related work
Industries & Works Div	7,404	There is enough demand for Steel Mill land (by private sector and by provincial Govt.) that they can develop this land by themselves. There is no need for this at all.
Industries & Works Div	1,950	This work could have been undertaken by the Textile industry provided the right incentive. In an environment where Textile industry has suffered massive losses due to adverse circumstances and lack of demand, it is hard to fathom the logic of this project.
Information & Broadcasting	107	There is no need for another public sector Think Tank. Why can't such strategy be made via public sector universities that have Communication departments
Information & Broadcasting	1,490	There is not much viewership of PTV and it cannot compete with private channels. It has little relevance in terms of positive spillovers due to its presence. At the moment, its serves merely as an employment bureau for politically affiliated journalists and blue-eyed persons
Information & Broadcasting	999	Not many (if anyone) listens to public radio in presence of popular private radio stations. Difficult to understand what would be established with establishing such facilities in a region where there aren't many consumers
Information & Broadcasting	599	No logic to spending money on such ventures.
Information & Broadcasting	749	Rs. 40 billion were spent on a Firewall earlier, supposedly for the same security purposes and for censoring online content plus threats. What is this one for?

Ministry/Division	Remaining Expense (Rs. millions)	Explanation/Reason
Information & Broadcasting	215	Why is Rs. 500 million expense needed for 'digital monitoring' and 'transformation'? What does this kind of transformation entail for working of the Ministry and government, overall? How is it any different from all the other 'automation' and 'transformation' projects being run at present and run earlier?
Information & Broadcasting	4,889	Venture capital is supposed to come from private sector, not public sector. Similar is the case in terms of IT Startups. It is difficult to discern what 'specialized' IT training is implied here and why couldn't the existing facilities like technical training centers be utilized for this purpose, those who are already getting hefty grants?
Information & Broadcasting	7,787	This project is apparently a continuation of the earlier WB funded project (P174402) with the same name. Amongst its several objectives is one-window type digital facility at Govt institutions and growth of digital economy for economic sustainability. It remains to be seen what happened to the earlier project and what were the outcomes and why the necessity of this particular project was felt? Also, institutions like BOI already have a one-window type online facility, and other departments have their online presence too. Moreover, in terms of digital economy, the relevant institutions are those like SBP which have already rolled out many such initiatives. In fact, SBP regularly publishes Digital Economy stats.
Information & Broadcasting	1,799	Why should a Govt entity take upon itself to expand cellular services in these areas, especially when this particular organization (SCO) is largely to blame for low-quality services in these areas? This is a job for private sector who would invest their resources, creating jobs and economic activity
Information & Broadcasting	502	Another project for the same entity (SCO), and apparently for a similar purpose
Information & Broadcasting	4,844	As per the available information, of Pakistan Software Export Board (PSEB) which will run this program under the INSPIRE moniker, has already trained 2,200 undergrad and post-grad students plus qualified engineers through use of public funds. It would interesting to know what happened to these professionals, their job placements and how they have contributed to Pakistan's IT exports, etc.? It is also questionable why new 'clusters' for semi-conductors are being contemplated amidst severe underutilization of already established SEZs across the country, and substantial amounts being doled out for IT Parks in various cities like Islamabad and Karachi.
Information & Broadcasting	7,427	What exactly is being implied by 'revamping' of IT industry? There is little or no information about the components of this significant expense. Moreover, how can this be justified amidst all the other investments under PSDP for the IT Ministry?
Information & Broadcasting	535	How is this different from all the other such initiatives being financed through PSDP (like grants given to HEC and to various universities like NUST)?
Information & Broadcasting	708	Available details suggest that this project has components that raise many questions over its feasibility. For example, 'One patient, One identity' component is already being covered under a separate project (#508 in PSDP list) with an outlay of Rs. 200 million plus. So why the need for separate allocation for the same purpose? Similarly, another aspect is 'Smart Policing' that includes enhancements in the failed 'safe city camera' project. 'Cashless Economy and Citizen Services' is yet another questionable aspect of this, as cashless economy does not need infusion of public funds given that citizens widely use several cashless means (JazzCash, banking apps, etc.) to conduct banking transactions. So this whole project, its components and components are questionable
Interior Ministry	5,110	This seems counterintuitive. Which country has such subsidized housing model for its Parliamentarians? They are provided a monthly remuneration, which has been enhanced substantially recently, aside from other facilities. They should arrange for their own residential facilities.
Interior Ministry	7,499	Money for the same purposes already allotted under Information and Broadcasting projects. Earlier Safe City project reviews painted it as a failure. Why is it being expanded?
Interior Ministry	2,000	This does not tell what ‘Infrastructure' is being developed? Islamabad has already seen significant growth of Brick and Mortar infrastructure at an increasing pace, putting its environment in peril as green areas are disappearing. Its important to know what infrastructure is being developed and for what purpose?

Ministry/Division	Remaining Expense (Rs. millions)	Explanation/Reason
Kashmir Affairs, GB and SAFRON Div	1,850	What does 'strengthening' imply? Vague and without any details
Kashmir Affairs, GB and SAFRON Div	2,988	These kinds of initiatives were started back in 2009/10 through UNHCR financial support for Afghan refugees. Since Afghan refugees are now being sent back, there does not seem to be any need for this allocation
Law & Justice Division	1,957	What facilitation is needed that cannot be provided within the already built structure of IHC?
Law & Justice Division	3,412	With the advent of FCC and introduction of online case hearing mechanisms, there is little or no need for constructing other buildings
Law & Justice Division	175	Vague in terms of what 'capacity' is intended to be built? Normally these kinds of programs are just a waste of resources
Law & Justice Division	250	With the advent of FCC and introduction of online case hearing mechanisms, there is little or no need for constructing other buildings
Law & Justice Division	490	With the advent of FCC and introduction of online case hearing mechanisms, there is little or no need for constructing other buildings
Law & Justice Division	17	Little or no need for a separate, exclusive block for AG. More of status symbol than anything else
Maritime Affairs Division	1,450	Needless since Gwadar and CPEC related infrastructure are already underutilized. There is no need for any new brick and mortar infrastructure for this purpose
Maritime Affairs Division	2,920	The land already acquired and infrastructure already built is severely underutilized. Why does Govt. need more land?
Maritime Affairs Division	175	This project is aimed at upgrading, rehabilitating and expanding residential and community infrastructures. But why is this being done at taxpayers' expense when the port is under private authority. In such cases, it’s the private owners who invest in such facilities rather than the other way around

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Find Us On

info@epbdt.org.pk
www.epbdt.org.pk
F-8/3, Islamabad, Pakistan
+92 51 88 400 99