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WEEKLY Cutting Edge

INDEPENDENT • INCISIVE ANALYTICAL

**WHY FOREIGN
INVESTMENT IS
ELUDING PAKISTAN**

THE PREMIUM SHAVING EXPERIENCE



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About Us

Cutting Edge is an independent English weekly magazine being published from Lahore. Its founding editor, Dr Niloufer Mahdi, belonged to one of the top industrialist families of Pakistan — Packages Group. She was the daughter of Syed Wajid Ali and granddaughter of Syed Maratib Ali. In a short span of time it has gained popularity and built loyal readership throughout the country. With the contributions by renowned journalists and literary figures and diversity of issues/topics touched by our magazine, we can confidently claim that it has set not only new trends in local journalism, but has emerged as the most read and credible magazine for men, women, students and opinion leaders from different spheres of life. It also circulated in all Foreign Embassies, Libraries, Hospitals, 5 star Hotels and Government/ Private Departments. Its website, weeklycuttingedge.com, is a premier online source for the analysis of current affairs, providing authoritative insight into, and opinion on, national and international news, business, finance, science and technology, as well as an overview of cultural trends. We have commenced its publication, with an aim to bring the best to our readers; similarly, we intend to offer the best in terms of advertising and promotional impact for our valuable advertisers. The 24-page Cutting Edge is divided among different sections, and we have proportionally divided the space in each section for carrying advertisers' message for the utmost impact.

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Why foreign investment is eluding Pakistan

Farhan Khan

Pakistan's ambitious drive to position itself as a premier destination for global capital faces a stark paradox: while its investment policies are among the most liberal in the region, the actual inflow of Foreign Direct Investment (FDI) continues to fall short of desired national targets.

Senior economic analysts point out that while the state has successfully engineered specific structural advantages to lure multinational corporations, systemic roadblocks continue to throttle the country's economic potential.

Pakistan's efforts to restore macroeconomic stability have yet to produce a meaningful revival in foreign direct investment (FDI), exposing a fundamental weakness in the country's economic strategy. Despite improvements in its external position and sovereign credit profile, the country continues to struggle to attract the foreign capital needed to generate employment, expand exports, introduce modern technology and sustain economic growth.

The latest figures underline the problem. According to the latest estimates, net FDI fell by approximately 32 per cent to \$1.7 billion in fiscal year 2025-26. If confirmed by final official data, this decline would represent a serious setback for a country that urgently needs investment to escape its cycle of slow growth, external borrowing and recurring balance-of-payments crises.

The central question is why foreign investors remain reluctant to commit their capital to Pakistan despite its enormous market, relatively liberal investment regime and generous incentives. The answer lies in the widening gap between what the government promises and what businesses experience on the ground.

On paper, Pakistan offers several advantages to international investors. Its population of more than 250 million represents a substantial consumer market, while its strategic location connects South Asia, Central Asia, China and the Middle East. The country also offers foreign investors considerable ownership flexibility, including 100 per cent foreign equity in most sectors, subject to applicable laws and sector-specific restrictions. Repatriation of profits and dividends is generally permitted under the prevailing foreign-exchange framework.

Special Economic Zones (SEZs), privatisation initiatives and the China-Pakistan Economic Corridor (CPEC) add to the country's investment appeal. Foreign capital has entered telecommunications, power generation, financial services and fast-moving consumer goods, demonstrating that Pakistan can attract international businesses when commercial opportunities are sufficiently compelling.

Yet these advantages have not translated into sustained, broad-based investment. The existence of incentives does not guarantee that investors will use them. What ultimately determines investment decisions is the cost, predictability and security of doing business over many years.

Pakistan's experience suggests that its problem is not a complete absence of investment opportunities but an inability to convert

prospective investors have every reason to question whether their own financial interests will receive fair treatment.

The problem is compounded by an excessively narrow tax base. Instead of bringing undertaxed sectors and untaxed incomes into the tax net, successive governments have repeatedly increased the burden on documented businesses. Frequent changes in tax rates, withholding taxes, compliance requirements and regulatory interpretations further complicate investment planning. A credible investment policy requires fair taxation, prompt refunds and a simpler system that rewards formalisation rather than penalising it.

Two other factors are policy uncertainty and institutional weakness. Foreign investment involves commitments extending over decades. Investors must therefore be confident that rules

governing taxation, ownership, licensing, pricing and profit repatriation will not change unpredictably.

Pakistan has repeatedly undermined this confidence through abrupt policy reversals, inconsistent regulations and overlapping federal and provincial jurisdictions. Businesses face multiple approvals, duplicated documentation and delays in obtaining routine permissions. Even where investment incentives exist, bureaucratic

procedures can make them difficult to access.

Weak dispute resolution and inadequate enforcement of contracts add another layer of risk. Investors need assurance that commercial disagreements will be settled fairly and within a reasonable period. Intellectual property protection must also be strengthened, particularly if Pakistan hopes to attract investment in pharmaceuticals, technology, research and advanced manufacturing.

What is the way forward? The government should establish a genuinely empowered, one-window investment facilitation system with clear deadlines, transparent procedures and accountability for officials. Federal and provincial authorities must coordinate their regulations so that investors are not trapped between competing jurisdictions. Special Economic Zones should be judged by the businesses they attract, the jobs they create and the exports they generate, rather than simply by the incentives announced or the number of zones established.



those opportunities into a dependable investment environment. One of the most damaging features of Pakistan's business climate is the treatment of compliant enterprises by the tax administration. A recent disclosure by the Overseas Investors Chamber of Commerce and Industry (OICCI) revealed that member companies had approximately Rs102.8 billion in pending tax refunds as of August. These included Rs68 billion in income-tax refunds and Rs34.8 billion in sales-tax refunds.

For businesses, unpaid refunds are not merely accounting discrepancies. They represent working capital that could finance production, purchase machinery, hire workers or establish new facilities. When legitimate claims remain unsettled for extended periods, companies are effectively forced to finance the government's cash-flow difficulties. The implications extend beyond existing investors. If established multinational corporations struggle to recover money legally owed to them,

World Bank's eye-opening report on rising poverty in Pakistan

Nasim Ahmed

Pakistan is home to almost half of the poorest people in a vast region stretching from North Africa to South Asia, according to a new World Bank report that paints a sobering picture of the country's recent economic trajectory. The Washington-based lender, in its Middle East, North Africa, Afghanistan and Pakistan (MENAAP) report released last week said that Pakistan accounts for about 48 percent of people in the region living below the \$3-a-day poverty line, equivalent to roughly Rs840 in daily income. The World Bank recently separated Pakistan from its South Asia grouping and placed it with the Middle East and North Africa region.

The report said the remaining poor are concentrated in three war-affected countries, Afghanistan, Syria and Yemen, which together account for another 47 percent. Poverty rates at the \$3 line approached or exceeded 20 percent in Djibouti, Pakistan, Syria and Yemen. MENAAP now accounts for 14 percent of the world's extreme poor, second only to Sub-Saharan Africa. After falling substantially during the 2000s and 2010s, poverty reduction stalled around 2019 and reversed after the COVID-19 pandemic.

The bank attributed the regional increase primarily to Pakistan, where the poverty rate rose by 6.4 percentage points at the \$3 line and 3.2 percentage points at the \$4.2 line between 2018-19 and 2024-25. It blamed a succession of adverse shocks: the pandemic, the devastating 2022 floods, a macroeconomic crisis marked by high inflation and currency depreciation, and a prolonged period of economic adjustment that weakened real household incomes and employment opportunities.

For the current fiscal year 2026-27, the World Bank projects economic growth of 3.8 percent and inflation of 8.2 percent. Population-growth-adjusted real GDP growth is expected at 2.2 percent, almost unchanged from 2.1 percent last year, a pace that offers little prospect of rapid poverty reduction. The report projects a current account deficit of 0.8 percent of GDP and a budget deficit of 3.5 percent. Both are higher than in the previous fiscal year but remain within manageable limits.

The findings are likely to renew debate over the cost of stabilisation. The prolonged adjustment under IMF programmes has been criticised for improving fiscal and monetary indicators while contributing to low growth, rising poverty and high unemployment. The

World Bank's own language, which links poverty to the weakening of real household incomes and job opportunities during adjustment, lends weight to that criticism.

The report warns that the Middle East conflict has brought fresh pressures. Governments across the region face simultaneous demands to cushion households from higher prices and respond to conflict-related humanitarian needs. Pakistan, it noted, has introduced targeted fuel and farm assistance. Petrol price increases of 40 percent or more were recorded in Lebanon, Pakistan, Syria and the UAE. Diesel prices have risen by more than 40 percent in Pakistan and the West Bank and Gaza since the conflict began, with sharper increases elsewhere in the region.

Pakistan is among six oil-importing countries, along with Djibouti, Egypt, Jordan, Morocco and Tunisia, that remain exposed through several channels. These include inflationary pressure from costlier oil and commod-



ities, loss of fiscal space, lower remittances from Gulf economies, and higher borrowing costs driven by increased insurance risk as the conflict persists. For Pakistan, where Gulf remittances are a vital source of foreign exchange and household income, the remittance risk is particularly acute.

The report also points to weaknesses in the private sector. Product innovation among firms is significantly lower in MENAAP than in peer economies. In Pakistan, just 3 percent of firms reported introducing a new product or service and 1 percent reported process innovation, against lower-middle-income peer averages of 23 percent and 14 percent respectively. Egypt, by comparison, recorded 9 percent and 3 percent.

On artificial intelligence, Pakistan recorded the highest absolute conversation count in the region, but usage is concentrated in arts and media, including graphic design, content creation and translation, rather than software. The bank suggested this may reflect the coun-

try's large presence on international freelance platforms, where such services are in demand.

Across the region, the share of job postings requiring digital skills rose substantially between 2021 and 2025, with double-digit percentage point gains in Pakistan, Bahrain, Lebanon and Saudi Arabia. However, infrastructure remains a constraint. Pakistan is among eight countries, along with Djibouti, Egypt, Iraq, Jordan, Oman, Syria and Yemen, with fewer mobile broadband subscriptions than income peers would predict. Uneven broadband access and electricity gaps limit the foundations for AI adoption.

The report's central message is one of accumulated damage. Millions of Pakistanis have lived through the pandemic, deadly floods, soaring inflation and years of uncertainty, often with no chance to recover before the next crisis. For poor households, each setback leaves lasting scars. Families exhaust savings, sell livestock, borrow to buy food, or withdraw children from school to cut costs.

Such losses are not easily reversed. A farmer who has sold his animals or a small trader who has closed his shop cannot simply resume earning once conditions improve. This helps explain why poverty can keep rising even as the broader economy shows signs of recovery. Macroeconomic stability, in other words, does not automatically translate into relief for those at the bottom.

With new dangers emerging, the World Bank has cautioned that the Iran-related conflict could raise fuel and commodity prices, weaken remittances and increase borrowing costs, while adverse weather could push up food prices and hurt agricultural livelihoods. For households still reeling from earlier blows, another bout of inflation could prove devastating. Analysts say the response must go beyond post-disaster relief. The government needs to identify the families at greatest risk, strengthen early-warning and disaster-response systems, protect farming livelihoods, and ensure that assistance reaches vulnerable households before they are forced into desperate choices. Keeping children in school and preventing families from losing their means of earning must also be priorities.

The broader lesson is that poverty reduction cannot succeed if every new crisis pushes people back into hardship. With nearly half the region's poor living within its borders, Pakistan faces the task of protecting the fragile gains its poorest citizens manage to make, while building an economy that is more innovative, better connected and more resilient to shocks

Pakistan's 22% water deficit threatens staple crops

Muhammad Hassan

Pakistan is heading into the Rabi cropping season with a projected 22 per cent irrigation water shortage, raising concerns about the production of wheat and several other important winter crops in Punjab and Sindh. The anticipated shortfall comes amid lower-than-expected river inflows, declining water storage and a significant reduction in water availability compared with the previous year.

The Indus River System Authority (Irsa) has estimated that water availability for the Rabi season, running from October 1 to March 31, will remain substantially below the requirements of the provinces. The shortage could affect the cultivation and growth of wheat, tobacco, barley, mustard, gram, lentils, potatoes, onions and tomatoes, all of which contribute to the country's food supply and agricultural economy.

According to the seasonal assessment, provincial irrigation withdrawals have been set at 29.183 million acre-feet (MAF), against anticipated inflows of 21.268 MAF at the rim stations. The difference highlights the pressure on Pakistan's irrigation system as it enters a crucial period for winter crop production.

Irsa said the projected shortage would be reviewed periodically in light of changes in river inflows and the overall availability of water during the season. This means provincial water supplies could be reassessed if actual inflows differ from the current estimates.

Under the approved provincial allocation, Punjab will receive 15.564 MAF of irrigation water during the Rabi season, while Sindh has been allocated 11.748 MAF. The Chashma Right Bank Canal (CRBC) system in Khyber Pakhtunkhwa will receive 0.701 MAF, and Balochistan's allocation has been fixed at 1.171 MAF.

The combined provincial withdrawals amount to 29.183 MAF, reflecting the distribution approved by the committee for the winter

cropping period.

Punjab and Sindh are particularly important to the country's agricultural output because of their extensive irrigated farming systems and large cultivated areas. Any disruption in water availability can complicate decisions about sowing, irrigation scheduling and the allocation of limited supplies among competing crops.

Wheat is likely to remain a major concern because it is Pakistan's principal staple crop and plays a central role in national food security. Water shortages during critical stages of crop development can affect yields, particularly where farmers have limited access to alternative water sources.

Other crops, including barley, gram, lentils, mustard, potatoes, onions and tomatoes,

the corresponding figure for the previous year.

The lower inflows reflect the continuing pressure on the country's water resources and have implications for the availability of supplies entering the winter season.

Water storage also remained below expectations. On September 30, total storage stood at 9.343 MAF, compared with an anticipated 12.014 MAF. It was also below the 10-year average of 9.938 MAF and considerably lower than the 13.214 MAF recorded a year earlier.

The storage position is significant because reservoirs provide an important buffer against fluctuations in river flows. When storage levels are lower than expected at the end of one cropping season, the system has less capacity to compensate for reduced inflows during the next season.

The figures suggest that Pakistan entered the Rabi season with less stored water than anticipated, adding to the challenge of meeting irrigation requirements across the provinces.

The committee's review further showed that downstream Kotri escape during Kharif stood at 10.40 MAF. The volume was substantially below the anticipated 13.05 MAF, the 10-year average of 15.43 MAF and the 30.85 MAF

recorded during the previous year.

Water releases downstream of Kotri Barrage are important for maintaining freshwater flows towards the Indus Delta. The significant decline in escape therefore highlights the need to balance agricultural requirements with the environmental needs of the lower Indus system.

The committee also noted that provincial water utilisation during Kharif remained below the respective shares specified under the Water Apportionment Accord. Punjab's utilisation was 11 per cent below its share, Sindh's was 7 per cent lower, Khyber Pakhtunkhwa used 28 per cent less, and Balochistan's utilisation remained 58 per cent below its allocated share.



also depend on timely irrigation for satisfactory growth. A shortage during the Rabi season could therefore have implications extending beyond wheat production to the availability and prices of other agricultural commodities.

The extent of any impact will depend on the timing and severity of the shortage, local rainfall, groundwater availability and the efficiency with which farmers use the water allocated to them.

The advisory committee also reviewed the water position during the Kharif 2026 season and noted that actual river inflows amounted to 95.44 MAF. This was 8 per cent below the anticipated level, 7 per cent lower than the 10-year average and 22 per cent below

These figures indicate that actual provincial water use was below the respective accord shares during the season. However, lower utilisation does not necessarily mean that water shortages were absent, as actual use can also be influenced by the timing of supplies, irrigation infrastructure, local requirements and the availability of water at different locations.

The call highlights the importance of timely completion of water and hydropower infrastructure to improve the management and availability of supplies. Better coordination between reservoir operations, irrigation requirements and hydropower generation remains essential for addressing competing demands on the country's water resources.

However, infrastructure development alone cannot eliminate the challenges posed by variable river flows and limited storage. Efficient water distribution, improved irrigation practices and effective coordination among federal and provincial authorities will also be necessary to reduce the impact of shortages.

The projected Rabi shortage underscores the vulnerability of Pakistan's agricultural sector to fluctuations in river inflows and inadequate water storage. With wheat and other essential crops entering their winter growing cycle, the availability of irrigation supplies will remain a major concern for farmers and policymakers.

The periodic review of allocations may

help Irsa respond to changing conditions, but the broader challenge requires more efficient water use, improved infrastructure and stronger coordination among the provinces. Ensuring that available supplies reach farms at the right time will be as important as the overall volume of water allocated.

Ultimately, Pakistan's ability to protect agricultural production will depend on how effectively it manages scarce water resources. With river inflows and storage levels below expectations, careful distribution, conservation and timely infrastructure development will be essential to limit the effects of the anticipated shortage on crop yields, food supplies and rural livelihoods.

Outpaced: Pakistan's trade balance strains under rising import bills

Muhammad Zain

Pakistan's merchandise trade deficit continued to widen in the opening quarter of the current fiscal year, highlighting the persistent imbalance between the country's export earnings and import expenditure. Although exports recorded encouraging growth in September 2026, the increase was insufficient to offset the faster rise in imports, leaving the country with a larger trade gap and renewed pressure to strengthen its external account.

Official data released by the Pakistan Bureau of Statistics (PBS) on Friday showed that the merchandise trade deficit increased by 6.2 per cent year-on-year to \$3.56 billion in September, compared with \$3.35 billion in the same month last year. The gap also widened from \$3.29 billion recorded in August, indicating that the imbalance between exports and imports continued to grow on a monthly basis.

Pakistan's exports rose by 17.6 per cent to \$2.94 billion in September, up from \$2.50 billion a year earlier. The improvement reflected stronger overseas shipments and offered some encouragement to policymakers seeking to increase export earnings. However, imports also registered substantial growth, rising by 11.1 per cent to \$6.49 billion from \$5.85 billion in September 2025.

In absolute terms, imports increased by approximately \$646 million over the year, while exports added around \$440 million. The difference between these increases explains why the trade deficit expanded despite the relatively strong performance of exporters.

The figures underline a continuing challenge for Pakistan's economy: export growth

alone cannot significantly narrow the trade gap if the value of imports continues to rise at a comparable or faster pace. The country needs sustained growth in foreign sales alongside measures that reduce unnecessary import dependence and strengthen domestic production.

The widening deficit becomes more concerning when viewed against the performance of the first three months of fiscal year 2026-27. During July-September, Pakistan's merchandise trade deficit increased by 15.3 per cent to \$10.8 billion, compared with \$9.37 billion in the corresponding period of the previous fiscal year.

Exports during the quarter rose by 10.8 per cent to \$8.42 billion, while imports climbed by 13.2 per cent to \$19.2 billion. The figures show that the country continued to spend considerably more on imported goods than it earned from exports, with import growth outpacing export expansion.

The gap between the two sides of merchandise trade remains a key concern because a sustained increase in imports without a corresponding improvement in export receipts can intensify pressure on foreign exchange resources. Pakistan requires dollars to pay for imported petroleum, machinery, industrial inputs, consumer goods and other essential products, while export earnings provide an important source of those dollars.

Some increase in imports can reflect stronger economic activity, particularly when businesses purchase machinery, raw materials and intermediate goods for production. However, the implications depend on the composition of imports and whether these purchases eventually contribute to higher domestic

output, productivity and export capacity.

If import growth is driven largely by goods that do not strengthen productive capacity, the resulting trade imbalance can become more difficult to manage. Conversely, imports that support industrial expansion and value-added exports can help improve the country's external position over time.

The latest figures follow a difficult performance in merchandise trade during fiscal year 2025-26, when Pakistan's trade deficit widened considerably. According to the reported data, the deficit increased by 21.6 per cent to \$39.47 billion during the year.

Exports declined by 6 per cent to \$30.13 billion, while imports rose by 7.9 per cent to \$69.6 billion. The combination of falling export earnings and rising import expenditure significantly widened the gap, demonstrating that the challenge extends beyond temporary monthly fluctuations.

The deterioration also points to the need for a more competitive export sector capable of generating consistent growth across different markets and product categories. Higher export volumes and greater value addition could help Pakistan earn more foreign exchange, reduce its dependence on external financing and improve the resilience of its balance of payments.

Exporters face the broader task of improving productivity, maintaining competitive prices, meeting international quality standards and securing reliable access to energy and industrial inputs. Greater diversification of products and markets could also reduce vulnerability to changes in demand in individual countries.

At the same time, policies aimed at

containing imports need to distinguish between non-essential consumption and the raw materials, technology and equipment required for productive investment. An indiscriminate reduction in imports could restrict industrial activity, while a stronger domestic supply base could gradually reduce the need for imported goods.

While merchandise trade remained under pressure, Pakistan's services trade deficit showed a marked improvement in August 2026. The deficit narrowed by 37.2 per cent to \$282.7 million, compared with \$450 million in August last year, according to the PBS.

Services exports increased by 29 per cent to \$873 million from \$677 million a year earlier. Services imports, meanwhile, rose by 2.5 per cent to approximately \$1.156 billion, compared with \$1.127 billion in August 2025.

Despite the annual improvement, services exports declined by 6.9 per cent month-on-month in August, while imports fell by 4.9 per cent. This suggests that the annual performance was stronger than the immediate monthly trend, making it important to assess whether the improvement can be sustained in the coming months.

The services sector offers Pakistan opportunities to diversify its foreign exchange earnings beyond traditional merchandise exports. Information technology, software development, telecommunications and other internationally traded services can contribute to export growth without relying on the same import requirements as many manufacturing industries.

However, the sector needs consistent policy support, improved digital infrastructure, access to international payment channels, a skilled workforce and a predictable regulatory environment. Sustained growth in services exports could help offset part of the pressure created by the merchandise trade deficit.



The broader services trade figures for July-August also presented a positive trend. Pakistan's services trade deficit fell by 25.8 per cent to \$559.5 million during the first two months of fiscal year 2026-27, compared with \$754.5 million in the corresponding period last year.

Services exports surged by 28.9 per cent to \$1.81 billion, while services imports increased by 9.8 per cent to \$2.37 billion. The faster expansion in services exports helped narrow the deficit, contrasting with the merchandise trade account, where imports continued to grow more quickly than exports.

This divergence highlights the importance of broadening Pakistan's export base and developing sectors capable of generating foreign exchange through competitive, higher-value services. Nevertheless, the improvement in services trade remains insufficient on its own to compensate for the much larger merchandise deficit.

Pakistan's latest trade figures present a mixed picture. The growth in merchandise

exports during September and the narrowing of the services deficit are encouraging developments, but the overall external trade position remains vulnerable because import expenditure continues to exceed export earnings by a substantial margin.

The immediate challenge is to sustain export growth while ensuring that imports contribute more effectively to domestic production and economic expansion. Greater value addition, industrial competitiveness, diversification and investment in export-oriented sectors will be essential to achieving this objective.

Unless exports expand consistently enough to close the gap with imports, Pakistan will continue to face pressure on its foreign exchange resources. The first-quarter figures therefore serve as a reminder that improving monthly export performance is important, but lasting progress will depend on building a more productive economy that can earn substantially more from international trade.

48pc: Pakistan's silent poverty crisis

Shahid Hussain

Pakistan accounts for nearly half of the people living below the \$3-a-day poverty line across the Middle East, North Africa, Afghanistan and Pakistan region, with prolonged economic adjustment, high inflation and weak employment opportunities contributing to a deterioration in household living standards.

In its latest regional report, the World Bank said Pakistan accounted for around 48 per cent of the region's population living below the \$3-a-day poverty threshold, equivalent to approximately Rs840 in daily income. Afghanistan, Syria and Yemen, three countries affected by prolonged conflict and instability, together accounted for another 47 per cent of the region's poor population.

The report highlighted the growing challenge of poverty in Pakistan despite efforts to stabilise the economy through fiscal consolidation and monetary tightening. It noted that poverty reduction across the region had stalled around 2019 and subsequently reversed following the Covid-19 pandemic.

The World Bank estimated that Pakistan's poverty rate at the \$3-a-day threshold

increased by 6.4 percentage points between 2018-19 and 2024-25. At the \$4.20-a-day threshold, the poverty rate rose by 3.2 percentage points during the same period. The increase followed a succession of adverse economic and environmental shocks, including the pandemic, the devastating floods of 2022, a macroeconomic crisis characterised by high inflation and currency depreciation, and a prolonged period of economic adjustment that weakened real household incomes and employment opportunities.

The report said the most recent estimates showed that poverty rates at the \$3-a-day threshold approached or exceeded 20 per cent in Djibouti, Pakistan, Syria and Yemen. The findings raise concerns about the social costs of Pakistan's prolonged economic stabilisation efforts under successive International Monetary Fund programmes. Although these measures have helped address fiscal and external imbalances, economic growth has remained subdued, while poverty and unemployment continue to place pressure on households.

The World Bank projected Pakistan's overall economic growth at 3.8 per cent for the current fiscal year, 2026-27, with inflation expected to average 8.2 per cent. However, after adjusting for population growth, real GDP growth is projected at 2.2 per cent, only marginally higher than the 2.1 per cent estimated for the previous fiscal year.

The distinction is significant because overall economic growth does not necessarily translate into a comparable improvement in living standards. When population growth absorbs much of the increase in national output, the gains available to individual households remain limited, particularly if employment creation and real wages fail to keep pace.

The World Bank also projected a current account deficit equivalent to 0.8 per cent of GDP and a budget deficit of 3.5 per cent of GDP during the current fiscal year. While these indicators suggest that external and fiscal pressures remain within potentially manageable limits, the broader challenge is to ensure that macroeconomic stability supports stronger economic activity and better living standards.

The report further warned that governments across the MENAAP region were facing simultaneous demands to protect households from rising prices and respond to humanitarian needs arising from regional conflicts. Pakistan has introduced targeted assistance for fuel and agriculture, but continued increases in energy costs threaten to undermine the effectiveness

of such measures.

According to the World Bank, petrol prices have risen by 40 per cent or more in Lebanon, Pakistan, Syria and the United Arab Emirates since the start of the Middle East conflict. Diesel prices have increased by more than 80 per cent in Lebanon and nearly 70 per cent in the UAE, while increases in Pakistan and the West Bank and Gaza have exceeded 40 per cent.

For Pakistan, which depends heavily on imported petroleum, higher international prices can have far-reaching consequences. They raise transportation and production costs, increase inflationary pressures and place additional demands on public finances when the government attempts to cushion consumers from the full impact of price increases.

The report identified Pakistan, along with Djibouti, Egypt, Jordan, Morocco and Tunisia, among the oil-importing economies exposed to the continuing regional crisis.



The risks extend beyond higher energy prices to include declining remittances from Gulf economies, reduced fiscal space and increased borrowing costs, partly reflecting higher insurance risks associated with the conflict. These pressures could complicate Pakistan's efforts to sustain economic recovery while protecting vulnerable households. Any decline in remittance inflows would be particularly concerning because overseas workers' transfers provide a major source of foreign exchange and support consumption among recipient families.

The World Bank also drew attention to Pakistan's weak performance in business innovation, identifying a significant gap between domestic firms and their counterparts in other lower-middle-income economies. According to the report, only 3 per cent of firms in Pakistan introduced a new product or service during the preceding three years, while just 1 per cent reported process innovation. These figures compare unfavourably with lower-middle-income-country averages of 23 per cent for product innovation and 14 per cent for process innovation.

The findings suggest that Pakistan's private sector faces difficulties in moving towards higher productivity, developing new products and adopting more efficient production methods. Limited innovation can constrain competitiveness, weaken export performance and reduce the economy's capacity to generate higher-skilled employment.

The report also examined the use of artificial intelligence across the region. Pakistan recorded the highest absolute number of AI-related conversations in the region, but usage was concentrated in arts and media-related activities, including graphic design, content creation and translation, rather than software development.

This pattern may partly reflect Pakistan's substantial presence on international freelance platforms, where demand for such services remains significant. However, the concentration of AI use in a limited range of occupations also points to the need for broader adoption of digital technologies across industry and other productive sectors.

Across the region, demand for AI remained concentrated in occupations forming the technical core of the economy. The share of job postings requiring digital skills increased substantially between 2021 and 2025 in almost all MENAAP countries, with double-digit percentage-point gains in Bahrain, Lebanon, Pakistan and Saudi Arabia.

Despite this progress, the World Bank identified gaps in the infrastructure needed to support wider digital adoption. Internet use in many MENAAP economies

was higher than their income levels would suggest, but uneven broadband coverage and inadequate electricity access continued to limit the physical foundations for AI adoption. Pakistan was among eight countries in the region with mobile broadband subscription levels below those of income peers, alongside Djibouti, Egypt, Iraq, Jordan, Oman, Syria and Yemen.

The findings present Pakistan with a dual challenge. It must address immediate pressures arising from poverty, inflation and external economic shocks while also improving productivity, innovation and digital infrastructure to create a stronger foundation for long-term growth.

Economic stabilisation remains important, but the World Bank's assessment underscores that its benefits must eventually reach households through better employment opportunities, stronger real incomes and improved access to productive economic activities. Without progress on these fronts, improvements in headline economic indicators may have limited impact on the daily lives of millions of Pakistanis.

Economic crisis and risks

Raza Khan

The rising prices of petroleum products in Pakistan and their unbearable impact on the majority of the population, coupled with the widening gap between the overwhelmingly poor population and a small percentage of wealthy people, are creating serious social and political tensions.

The raging ethnic insurgency in Balochistan, the Tehreek-e-Taliban Pakistan (TTP) insurgency in Khyber Pakhtunkhwa (KP) and its expanding footprint in Balochistan are significant indicators of a country facing the risk of low-intensity civil conflict. If remedial measures are not taken, this conflict could escalate further. India and the Afghan Taliban-led government in Afghanistan have also been accused of supporting armed groups operating in Pakistan, including Baloch separatist organisations and the TTP, although the nature and extent of such involvement vary and remain matters of political and security dispute.

Two factors are particularly important in understanding contemporary Pakistan and the relationship between conflict and the country's economic crisis. The first is its large youth population, with a substantial proportion of people falling within the 18-to-45 age group. The second is widespread poverty across the country, particularly in Balochistan, followed by Khyber Pakhtunkhwa. Whether one considers armed groups such as the banned Baloch Liberation Army (BLA) or the TTP, economic deprivation and limited opportunities can make vulnerable communities more susceptible to recruitment and exploitation. Many ordinary members of such organisations may come from disadvantaged backgrounds, allowing their leaders to exploit grievances and manipulate young people into confronting the state. By contrast, PTI's support base includes young men and women from different socioeconomic backgrounds, particularly educated members of the middle and lower-middle classes. The importance of economic hardship and youth discontent in Pakistan's prevailing political and security crisis is therefore difficult to ignore.

The persistent surge in prices in Pakistan has made life increasingly miserable for the country's poverty-stricken population, to the extent that basic survival has become a daily struggle for many households. At the same time, the already narrow middle class has been severely affected by the skyrocketing prices of essential commodities, pushing some of its members towards or below the poverty line. Only a small and relatively privileged upper class appears to possess sufficient fi-

nancial resources to withstand the full impact of inflation. When the poor struggle to meet their basic needs and middle-income households find it increasingly difficult to maintain even a modest standard of living, social tensions inevitably intensify. Such disparities can fuel resentment between socioeconomic groups and undermine social cohesion. If these pressures remain unaddressed, the consequences could be extremely serious, potentially leading to widespread unrest and an escalation of political and internal security conflicts. There are several other important factors that could contribute to further instability in Pakistan, and these must be examined alongside practical solutions to the country's deepening crisis.

First, there are multiple reasons for the unprecedented rise in prices in Pakistan. One of the most immediate causes is the increase in the international prices of commodities such as oil and energy products. Global edible oil prices have also placed pressure on household budgets and the country's import bill. Since Pakistan cannot produce all the petroleum products and edible oil it consumes, it remains heavily dependent on imports, exposing its economy to fluctuations in international markets. Reducing this vulnerability requires a combination of lower consumption, greater domestic production where feasible, improved energy efficiency and the development of alternative sources of energy. However, changes in consumption patterns alone cannot resolve the problem, particularly when households and businesses have limited alternatives to imported fuel and other essential commodities.

Petroleum products are critically important to almost every sector of the economy, and their prices influence the costs of production, transportation and distribution. The movement of people and goods, for instance, depends heavily on fuel. When petroleum prices rise, transport operators face higher operating costs, which are subsequently passed on to consumers through increased fares and the prices of goods. Farmers also face higher costs for machinery, irrigation and the transportation of agricultural produce, while industrial enterprises must contend with rising production and distribution expenses. Edible oil prices similarly affect household expenditure and the cost of preparing food. Consequently, increases in the prices of petroleum products and edible oil can contribute to a wider rise in the cost of living, especially in a country where a large proportion of the population spends most of its income on necessities.

Pakistan's large population also creates substantial demand for petroleum products,

edible oil, food and other essential commodities. As the world's fifth-most populous country, Pakistan faces enormous challenges in ensuring that economic growth translates into improved living standards for its citizens. Successive governments have struggled to implement an effective population policy capable of bringing population growth to a sustainable level. Rapid population growth increases pressure on employment opportunities, housing, healthcare, education, food supplies and public infrastructure. Unless the economy expands rapidly enough to absorb new entrants into the labour market and meet rising demand for essential services, poverty and unemployment are likely to persist.

Economists generally emphasise that economic growth must consistently outpace population growth if living standards are to improve significantly. However, the precise growth rate required depends on productivity, income distribution, investment and the number of people entering the labour force. In Pakistan, population growth has remained high while economic growth has frequently been weak and volatile. When the economy expands at a rate insufficient to generate enough jobs and raise per capita incomes, the benefits of growth become limited for the average citizen. Even when the government reports positive growth, households may experience little improvement in their purchasing power because inflation, population growth and rising essential expenses erode the gains. Under these circumstances, Pakistan faces a difficult path towards sustainable development unless it can accelerate productivity, expand employment and improve the delivery of public services.

Perhaps the most critical factor behind Pakistan's persistent inflationary pressures, economic stagnation and rising public frustration has been the failure of successive governments to formulate and implement consistent, forward-looking economic policies. While neighbouring countries, particularly China and India, have emerged as major economic powers despite their enormous populations, Pakistan has struggled to achieve sustained economic growth. Its population is considerably smaller than that of either country, yet the country has not succeeded in establishing a development model capable of generating comparable economic momentum. Population size alone does not determine economic success; productivity, institutional capacity, investment, education, technological progress and policy continuity are equally important. Pakistan's difficulties therefore cannot be explained simply by its demographic pressures.

A fundamental weakness has been the tendency of successive governments to prioritise personal, political and group interests over the development of a coherent national economic framework. Instead of consistently addressing the structural problems affecting production, exports, employment and human development, policymakers have frequently resorted to short-term measures designed to manage immediate financial pressures or protect political interests. Such an approach has prevented the country from building a stable foundation for long-term economic progress. The consequences include weak industrial competitiveness, inadequate investment, limited job creation and continued dependence on external financial assistance.

Another major problem is the disproportionate emphasis on the state's physical security at the expense of human and economic security. National security is undoubtedly important, particularly given Pakistan's challenging regional environment and persistent internal security threats. However, lasting security cannot be achieved through military and law-enforcement measures alone. A state must also provide its citizens with economic opportunities, affordable education, accessible healthcare, adequate housing and a reasonable prospect of a better future. When these fundamental needs remain unmet, frustration

grows and public confidence in institutions deteriorates.

Economic security and development have not received the sustained priority they require, despite official claims to the contrary. This has widened the disconnect between the state and society. The fundamental purpose of the state is not merely to maintain order but also to organise public institutions and create conditions in which citizens can live securely, exercise their rights and improve their living standards. Effective social control depends partly on public trust, the legitimacy of institutions and the belief that the system offers fair opportunities. Where inequality deepens, economic hardship intensifies and citizens feel excluded from decision-making, that trust gradually erodes.

Unfortunately, Pakistan's social cohesion is under increasing strain as economic hardship weakens the remaining foundations of public confidence and social stability. Persistent inflation, unemployment, unequal access to opportunities and political polarisation can reinforce one another, creating conditions in which grievances become more difficult to manage. In areas already affected by militancy and separatist violence, poverty and limited economic prospects can further complicate the state's efforts to restore peace and stability.

The government must therefore treat

economic recovery as an essential component of national security. Containing inflation, creating employment, improving education and healthcare, expanding opportunities for young people and ensuring a fairer distribution of the tax burden should form part of a comprehensive national strategy. Development spending must be directed towards communities facing the greatest deprivation, while economic policies should encourage productive investment, strengthen industry and reduce dependence on imported energy. Political dialogue and constitutional processes are equally necessary to address grievances peacefully and prevent political confrontation from escalating.

Pakistan's economic crisis does not automatically mean that the country is heading towards a civil war. However, the combination of persistent economic distress, widening inequality, youth frustration, political polarisation and ongoing insurgencies presents a serious warning that cannot be ignored. Unless the state responds through credible economic reforms, inclusive governance and sustained investment in human development, the risk of deeper internal conflict will remain. The country's long-term stability depends not only on its ability to confront security threats but also on its capacity to give ordinary citizens a meaningful stake in its economic and political future.

Degrees without discovery: Pakistan's universities in crisis

Rasheed Ali

A university is supposed to be a place where questions challenge established beliefs, discoveries transform industries, and research offers solutions to society's most difficult problems. It is where a country prepares not merely its graduates but also its future scientists, inventors, policymakers and thinkers.

In Pakistan, however, a troubling question has been hanging over the higher education sector for years: how has a country that has expanded its university network and produced thousands of PhD holders struggled to establish its institutions among the world's leading centres of learning and research?

The latest international rankings have once again brought this uncomfortable reality into focus. Pakistan has universities appearing in global league tables, but none has entered the top 350 in the latest QS World University Rankings. Quaid-i-Azam University (QAU), the country's highest-ranked institution, secured 381st place in the QS 2027 rankings,

while the National University of Sciences and Technology (NUST) followed among the country's leading institutions. The previous QS edition had placed QAU at 354th. The decline underlines how difficult it has been to sustain progress even among the country's strongest institutions.

The picture is even less encouraging in the Times Higher Education (THE) World University Rankings 2027. According to rankings published on September 30, QAU was placed in the 551–600 band, NUST in the 601–650 band, and COMSATS University Islamabad in the 651–700 band. Fifty-six Pakistani universities featured in the ranking, but none made the global top 400.

Rankings are not the ultimate measure of a university's worth. Their methodologies differ, and institutions can perform differently across subjects and indicators. Nevertheless, when a country's leading universities remain far behind their international counterparts, the results raise serious questions about research quality, institutional governance, ac-

ademic standards and the resources available to scholars.

The problem is not that Pakistan lacks talented students or capable academics. Rather, it is that the country has yet to build a higher education system capable of consistently turning individual talent into internationally competitive scholarship and innovations that improve people's lives.

The Higher Education Commission (HEC), established in 2002 to oversee and strengthen higher education, has supported scholarships, faculty development, research programmes and the expansion of academic institutions. Yet, more than two decades later, the challenge is to demonstrate that these initiatives have translated into lasting improvements in teaching, research quality and institutional performance.

In February 2026, academic and researcher Dr Noman Ahmed, writing in a national daily, argued that the commission needed to reassess how research grants were distributed and whether the funded projects

delivered meaningful results. He also raised concerns about research priorities that were disconnected from Pakistan's needs and the restrictions on intellectual freedom within universities. His analysis points towards a fundamental weakness: research funding cannot be judged merely by the amount spent or the number of projects completed; it must also be evaluated by what those projects discover and contribute.

The HEC's own leadership has acknowledged that the sector faces substantial institutional challenges. In October 2024, its then chairman, Dr Mukhtar Ahmed, identified governance and quality assurance as key problems confronting higher education. "More we focus on improving governance mechanisms of our higher learning institutions, more will it enhance the quality of education and research and also resolve the financial challenges that many universities are grappling with," he said.

That assessment raises a larger question about accountability. If governance and quality assurance are recognised as major weaknesses, what mechanisms ensure that universities correct them? How are vice-chancellors evaluated? Are research grants monitored for scientific and social impact? And what consequences follow when institutions fail to meet academic standards?

These questions matter because expanding access to higher education without protecting quality can produce impressive statistics but disappointing outcomes. A growing number of campuses, programmes and postgraduate qualifications does not automatically create a stronger research culture.

A study published in the journal 'Societal Impacts' in 2026, titled 'Research culture in Pakistan's Higher Education Institutions (HEIs): Examining the consequences of publication driven policies', examined faculty perceptions through interviews and a survey involving 102 academics. Its findings suggested that an excessive emphasis on publication quantity in academic evaluation could contribute to faculty dissatisfaction and unethical practices. The authors called for a broader approach to evaluating research and building a healthier academic culture.

The implications are serious. When academics are rewarded primarily for producing papers, research risks becoming an exercise in meeting career requirements rather than answering important questions. The system may generate publications without producing comparable advances in scientific understanding, public policy, technology or industry.

This does not mean that Pakistani researchers produce no valuable work. Indeed, the country has examples that challenge any

sweeping dismissal of its academic potential. QAU's performance in the citations-per-faculty indicator is one such example. In the QS 2026 rankings, the university was reported to have secured 51st place globally in that category, demonstrating that research originating in Pakistan can attract substantial international attention.

Financial constraints are another part of the problem. Meaningful research requires laboratories, specialised equipment, reliable electricity and internet access, current journals, trained technical staff, research grants and sufficient time for academics to conduct investigations. These are not optional extras; they are the foundations of serious scholarship.

Pakistan also needs to reconsider the relationship between universities and the wider economy. Too much academic work risks

evaluation, benchmarking and performance assessment, with a view to linking funding and institutional support more closely to research quality, integrity and impact.

Reform must extend beyond the HEC. University administrations need greater accountability, merit-based appointments, transparent financial management and protection for independent academic inquiry. Faculty members need opportunities to collaborate internationally, access modern facilities and devote adequate time to research. Students need better supervision, stronger research training and a system that values critical thinking over rote learning.

The government, meanwhile, must treat higher education as a long-term investment rather than a recurring expenditure to be managed through short-term fixes. Funding matters, but money alone will not repair a system



remaining confined to theses, journal articles and conference presentations, with limited engagement with the problems confronting agriculture, manufacturing, healthcare, energy, climate resilience and public administration.

There are encouraging signs that some institutions are attempting to bridge this gap. In February 2026, the University of the Punjab began implementing a research, innovation and commercialisation policy that allows faculty members to establish spin-off companies based on university-developed technologies. The policy also provides for researchers to receive between 50 and 80 per cent of royalty income generated by their products.

The HEC has also begun work on a proposed National Research Excellence Framework in collaboration with the British Council. Discussions launched in January 2026 are intended to strengthen research

undermined by weak governance, misdirected incentives and inadequate accountability.

Pakistan's universities do not need to chase rankings blindly. They need to build the underlying strengths that make strong rankings possible: rigorous teaching, credible research, academic freedom, international collaboration and a demonstrable contribution to society.

Pakistan has spent decades expanding its higher education system. The next phase must be about ensuring that this expansion produces excellence rather than merely more institutions and qualifications.

Until that shift occurs, the distance between Pakistan's universities and the world's leading centres of knowledge will remain a measure not of the country's shortage of talent, but of its failure to create the conditions in which that talent can flourish.

Full stomachs, empty diets

Dr. Zaheer Ahmad Babar

Pakistan's nutrition crisis is often attributed to poverty, poor eating habits and a lack of public awareness. However, the problem runs much deeper. According to the Food and Agriculture Organisation (FAO), the country does not produce sufficient quantities of many foods required for a healthy and balanced diet.

Vegetables, fruits, pulses, roots and tubers remain in short supply, while staples and sugar are produced in quantities that exceed what a nutritionally balanced diet requires. This imbalance highlights a fundamental weakness in Pakistan's food system: the country's agricultural priorities do not adequately reflect the nutritional needs of its population.

For decades, agricultural policy has focused primarily on major crops, particularly wheat, rice, sugarcane and other commodities that contribute to food security, industrial activity and export earnings. While these crops remain important for livelihoods and the economy, food security cannot be measured solely by the availability of calories. A country may produce sufficient grain to meet basic energy requirements while millions of its people remain unable to obtain the vitamins, minerals, protein and other nutrients essential for good health.

The consequences of this imbalance are becoming increasingly visible. More than 60 per cent of Pakistanis cannot afford a healthy diet, while undernutrition and diet-related diseases continue to exist side by side. Children may suffer from poor growth and nutritional deficiencies, while adults face increasing risks associated with unhealthy diets. These problems impose a heavy burden on households, the healthcare system and the wider economy. Poor nutrition can undermine children's learning, reduce workers' productivity and perpetuate poverty across generations.

Public awareness campaigns remain necessary, but they cannot resolve a problem rooted in the availability and affordability of food. Families cannot consistently follow dietary advice when nutritious products are either unavailable in local markets or priced beyond their means. Telling people to eat more fruit, vegetables and pulses will have limited value unless agricultural production, supply chains and consumer purchasing power support those choices.

The first step towards addressing this challenge should be a reassessment of agricultural incentives. Government sup-

port, research funding and development programmes need to give greater attention to crops that improve dietary diversity. Farmers should have stronger incentives to cultivate vegetables, fruits and pulses, particularly in areas where soil, climate and water availability make such production viable. This does not require abandoning major crops. Rather, it means diversifying agricultural priorities so that food production better reflects both economic requirements and public health needs.

Farmers also need practical support to make diversification commercially attractive. Access to quality seeds, modern farming techniques, reliable extension services and suitable financing can help them improve yields and reduce production costs. Research institutions should develop crop varieties suited to changing climatic conditions, including rising temperatures, irregular rainfall and water scarcity. Without these measures, farmers may remain reluctant to shift towards crops that involve greater production risks or uncertain market returns.

The challenge does not end when food leaves the farm. Poor storage facilities, inadequate transportation, limited refrigeration and inefficient marketing systems contribute to post-harvest losses, particularly for perishable products. Vegetables and fruits may deteriorate before reaching consumers, reducing supplies and raising prices. Investment in cold-storage facilities, refrigerated transport, modern wholesale markets and local processing can help preserve produce, stabilise supplies and reduce waste. Better market information and stronger links between farmers, retailers and consumers would also allow producers to respond more effectively to demand.

Improving affordability is equally important. Even when nutritious food is available, low-income households may prioritise cheaper staples because their budgets leave little room for more expensive items. Social protection programmes should therefore incorporate nutrition considerations, helping vulnerable families obtain diverse and healthy food rather than focusing exclusively on meeting immediate calorie requirements. Targeted food vouchers, nutrition-sensitive cash assistance and support for pregnant women, mothers and young children could improve access to essential nutrients.

Schools offer another opportunity to improve dietary habits and nutritional outcomes. Well-designed school meal programmes can provide children with nutritious food while creating a reliable market for locally produced

vegetables, fruits, pulses and other healthy products. Such programmes should include clear nutritional standards, regular monitoring and appropriate food safety measures. Nutrition education can complement these efforts by helping children develop healthier habits that continue into adulthood.

The government must also address the wider food environment. Clear and understandable food labels can help consumers compare products and identify excessive levels of sugar, salt and unhealthy fats. Stronger safeguards against the marketing of unhealthy food to children, alongside measures to encourage the reformulation of processed products, could reduce exposure to unhealthy diets. Public institutions can support this shift by adopting healthier food procurement standards in schools, hospitals and government facilities.

However, regulatory measures alone will not be sufficient. If fresh and nutritious food remains scarce or expensive, consumers will continue to face barriers regardless of how much information they receive. Agricultural, health, education and social protection policies must therefore work together. Nutrition should be treated as a shared national priority rather than a responsibility confined to the health sector.

Reliable data will also be essential. Authorities need regular assessments of food availability, household affordability, dietary diversity and nutritional outcomes across provinces and income groups. Such information can help identify communities facing the greatest barriers and direct public resources towards interventions that produce measurable improvements. Progress should be judged not only by crop output or food prices but also by whether families can regularly obtain a balanced diet.

Pakistan's nutrition crisis cannot be solved simply by producing more food. It requires a food system that makes healthy choices practical and affordable for ordinary households. The country must move beyond an approach centred largely on calories and recognise the importance of dietary quality. By diversifying agricultural production, improving storage and distribution, strengthening social protection and promoting healthier food environments, Pakistan can address the underlying causes of malnutrition. The ultimate test of agricultural success should not be how much food the country produces, but whether its people can afford and regularly consume the nutritious food needed for healthy and productive lives.

Towards cleaner production

Pakistan's export-oriented textile, sports goods and leather industries are entering a global phase in which environmental performance is becoming increasingly important for maintaining access to major international markets. For a country already facing high energy costs, financing constraints, infrastructure weaknesses and policy uncertainty, the transition towards cleaner production could either become a competitive advantage or another financial burden.

International buyers increasingly expect their suppliers to demonstrate lower carbon emissions, responsible energy use, efficient water and waste management, traceability and stronger environmental standards. Manufacturers in Pakistan, therefore, need to invest in renewable energy, efficient machinery, cleaner boilers, wastewater treatment, carbon accounting, digital traceability and skilled personnel.

The challenge is that these investments can be particularly difficult for small and medium-sized manufacturers, which often lack access to affordable capital and green financing. While manufacturers must take responsibility for improving their environmental performance, it is neither economically fair nor strategically sustainable to place the entire cost of the transition on suppliers.

This is where the principle of shared transition responsibility becomes rather important. The emerging platform of Shared Transition Responsibility Movement (STRM) seeks to distribute the cost and effort of industrial decarbonisation more equitably among manufacturers, brands and financiers rather than placing the entire burden of compliance on suppliers. It is a growing international coalition of researchers, sustainability practitioners, advocacy organisations, industry partners, and development finance institutions working to institutionalise the principle that international brands bear shared responsibility, both moral and financial, for decarbonising the supply chains from which they profit.

If international brands benefit from cleaner supply chains through reduced emissions, improved sustainability credentials and compliance with emerging regulations, they should also share the cost of achieving those improvements. Brand co-investment, long-term purchasing commitments, preferential sourcing, technical assistance and access to concessional green finance could provide manufacturers with the confidence required to make long-term investments.

Governments also have a critical role to play. Pakistan needs predictable environmental and energy policies, competitive electricity prices, stronger grid infrastructure, effective environmental regulations and incentives that make green investment commercially viable. Climate, energy and export policies must, therefore, be developed as interconnected

components of economic strategy. Sustainability should also no longer be treated merely as a compliance exercise. It must become part of production, procurement, finance, energy management and corporate planning.

Technologies, such as digital product passports, can further strengthen traceability and transparency right across supply chains. Pakistan just cannot afford to choose between export competitiveness and climate responsibility. The real danger is an unequal transition in which local factories are required to finance costly environmental upgrades to meet standards established in international markets while continuing to face pressure for lower prices and shorter sourcing commitments.

If global brands want cleaner supply chains, they should help finance them. If Pakistan wants to retain its place in global value chains, the government must create an enabling policy and energy environment. And, if manufacturers want to remain competitive, they must view sustainability as an investment in their future rather than merely another compliance cost. The climate transition is reshaping international trade. Pakistan's objective should not simply be to comply with the emerging rules, but to ensure that its exporters have a fair opportunity to compete under them.

Naeem Ahmad
Faisalabad

Vehicle transfer

I had sold my motorcycle about two years ago and had also completed the biometric verification process as the seller, subsequently sharing the receipts with the buyer. However, despite my repeated reminders, the buyer has still not registered the vehicle in his name. I recently checked the status of my motorcycle on the website of the Sindh Excise and Taxation Department, and found the following note alongside the vehicle details: "The owner has confirmed the sale of the vehicle by providing biometric verification to Nadra/ET&C Sindh; however, the buyer has not yet completed the transfer of ownership."

This is, of course, a welcome initiative by the department. I would, however, further suggest that once the seller has confirmed the sale of a vehicle, the authorities concerned should require the buyer to transfer ownership to his name within a specified period. If the buyer fails to do so within that period, the department should suspend or block the vehicle's registration until the transfer is completed.

We have law and order issues and terrorism-related incidents in the country. Such a measure would not only help reduce the risk of vehicles being misused in criminal activities, but would also compel buyers to transfer ownership of vehicles into their own names within a reasonable time.

Shoaib Akhter
Karachi

Rawalpindi flooding

The recent rains in Rawalpindi once again showed how vulnerable the city is. Rawalpindi has faced serious flooding many times, most notably in 2001. Every year, our response to the crisis remains the same: clean the drains, bring in pumps, and wait for the water to go down. We need to do something more practical.

The Nullah Lai catchment covers about 235 sq.-km. If 100mm of rain falls over this area, nearly 23.5 billion litres of water falls on the catchment. We cannot expect Nullah Lai to carry all this water at once. The city should first map the natural flow of rainwater from each neighbourhood. The existing drains and culverts should be cleaned, repaired or enlarged wherever necessary. Places where water repeatedly collects should be dealt with first.

We should also start holding some rainwater instead of trying to send it away immediately. Parks, open spaces and suitable government land can be used as temporary storage during heavy rain. Large buildings can collect rooftop rainwater, while permeable pavements and green roadside channels can allow some water to soak into the ground. Nullah Lai also needs attention. Its narrow sections, bridges and culverts should be checked, and garbage, construction material and encroachments restricting the flow should be removed. Simple water-level and rainfall sensors can give the authorities early warning, while pumps should remain available for the worst low-lying points.

None of this requires waiting for a grand project. Much can be started with the infrastructure the city already has. The basic idea is quite simple: do not let all the rainwater run away at the same time. Hold some, slow some, and safely drain the rest.

Ramesh Raja
Rawalpindi

Internship opportunities

The Undergraduate Education Policy 2020 of the Higher Education Commission (HEC) made internships mandatory for undergraduate students to bridge the gap between academia and industry. Students from less-established universities and those with lower scores often struggle to secure placements, as organisations tend to prefer candidates with exceptional academic records and well-developed CVs. According to the Pakistan Bureau of Statistics (PBS) Labour Force Survey 2024-25, unemployment among degree-holders stands at 10.9 per cent. The HEC should establish a structured national internship framework requiring universities to develop annual partnerships with industries, government departments and other organisations. Employers should also be incentivised for accommodating students.

Shafique Rajper
Nausharo Feroze

The world's first nuclear clocks start ticking

Mack Degeurin

Timekeeping has officially entered its nuclear age. Two independent teams, one in Vienna, Austria and another in Beijing, China have built working thorium-229 nuclear clock prototypes.

Rather than track changes in an atom's electrons the way that current atomic clocks do, these nuclear versions use a laser that's tuned to the frequency where a thorium nucleus flips between two energy states for potentially even more accurate time keeping. Scientists believe this new approach could one day make the clocks far more reliable than any existing atomic timekeeper. To put that in perspective, current atomic clocks can keep time with an uncertainty of 1 second every 300 million years. Scientists predict that more advanced nuclear clocks could move that metric into the billions of years. That could open the door to probing some of the universe's hardest-to-measure phenomena, like notoriously elusive dark matter. The Chinese clock and Austrian clock were detailed in a pair of studies published in the journal *Nature*.

The world's network of atomic clocks is already mind-bogglingly accurate. They also underpin a slew of modern necessities, from GPS to internet communication. Atomic clocks work by tuning a laser to the exact frequency of light that makes an atom's electron jump between two levels. Nuclear clocks, as the name suggests, go even deeper. They target jumps inside of an atom's nucleus. Lasers focus on vibrations from a single nucleus rather than the whole atom. For those who weren't paying all that much attention in chemistry class, a nucleus is tens of thousands of times smaller than the atom surrounding it.



Gene therapy can partly restore sight in blind people

Nicola Davis

A type of gene therapy based on Nobel prize-winning science is safe and can partly restore sight in blind people, researchers have revealed.

The approach, known as optogenetic therapy, harnesses the technique for turning nerve cells on and off using light that scooped the 2026 Nobel prize in physiology or medicine. It was first shown to partly restore vision in a single blind person in 2021. Now researchers have reported the results from a larger trial involving the original patient and a further nine people. "What we can say for sure is that the concept of optogenetics is valid for vision restoration," said Prof Botond Roska, director of the Institute of Molecular and Clinical Ophthalmology Basel and a lead author of the study.

Roska added the aim is now to work towards restoring high-resolution vision, with the hope of achieving the goal in five to 10 years. All 10 of the trial participants had advanced retinitis pigmentosa – a group of genetic disorders thought to affect more than 1.5 million people worldwide. In these disorders, light-sensitive cells in the retina gradually lose their function. However, ganglion cells in the retina, which send visual information to the brain, deteriorate less quickly. "These cells are not the primary cells targeted by the disease, so that's why they are good candidates for the therapy," said Dr José-Alain Sahel, another lead author of the study from the University of Pittsburgh Medical Center in the US.

The gene therapy involves giving a single injection into the eye. This injection contains a harmless, synthetic virus that delivers the genetic instructions for producing a light-sensitive protein into a ring of surviving ganglion cells. As a result, these cells are made light-sensitive. Each patient then receives a pair of light-stimulating goggles.



Anger or fear? Dogs may be able to read it on your face

Meghan Rosen

If you have a dog, you likely know how good these animals are at reading subtle cues. Jangle a key or dangle a leash and many pooches know it's time to go outside. But man's best friend may be even more in touch with our feelings than we realize. Dogs can distinguish between certain emotions just by looking at our faces, a new study suggests.

The results offer a new peek at what's going on in canine brains. That could offer clues to how dogs' emotion-sensing skills evolved, says Laura Cuaya. She's a neuroscientist at the University of Vienna in Austria. The findings also give another reason to smile at any pup that crosses your path, she adds. They just might understand.

Past studies had shown dogs can tell if someone's face is wearing a positive or negative expression. The two emotions seem to trigger activity in different areas of a dog's brain. But many questions remained. Could dogs tell the difference between two negative emotions, such as anger versus fear? And to read those emotions, did the faces need to be familiar to the dog? To find out, Cuaya and her team started by training 14 family dogs to stay still inside an MRI scanner. "They are very, very good at the task," Cuaya says. The machine would then track the dogs' brain activity.



American Academy of Pediatrics Renews Call for Ban on Raw Milk

Annie Waldman

The USA's largest professional group of pediatricians has renewed its call for a nationwide ban on the sale and distribution of unpasteurized milk and other raw dairy products, according to a policy statement.



The revised guidance from the American Academy of Pediatrics warns of the serious health risks from consuming raw dairy products, particularly for children, as well as pregnant and immunocompromised people. "More and more people are discussing this as a potentially healthful thing to do, when in fact it's a highly risky thing to do," said the academy's president, Dr. Andrew Racine. "So our responsibility, as the leading voice of pediatric healthcare in the United States that's dedicated to the health and well-being of children, is to make sure that the accurate, evidence-based information is out there." The revised statement follows ProPublica reporting that dived deep into the causes and severe consequences of America's current fascination with raw milk, which has not been heated to kill off harmful bacteria. Once limited to the fringes of health-food culture, unpasteurized milk has morphed into a widespread movement rooted in wellness trends and institutional distrust. Today, more than 10 million Americans drink it. Most scientists and health experts agree that raw milk has no significant, proven nutritional benefits over its pasteurized counterpart and that it cannot treat or cure any disease. It also subjects its consumers to over 100 times the risk of foodborne illness, which can be especially dangerous for young children. Before milk pasteurization was widely adopted a century ago, thousands of children died each year from diseases linked to contaminated dairy.

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پاک پائیں
پاکیزہ رہیں