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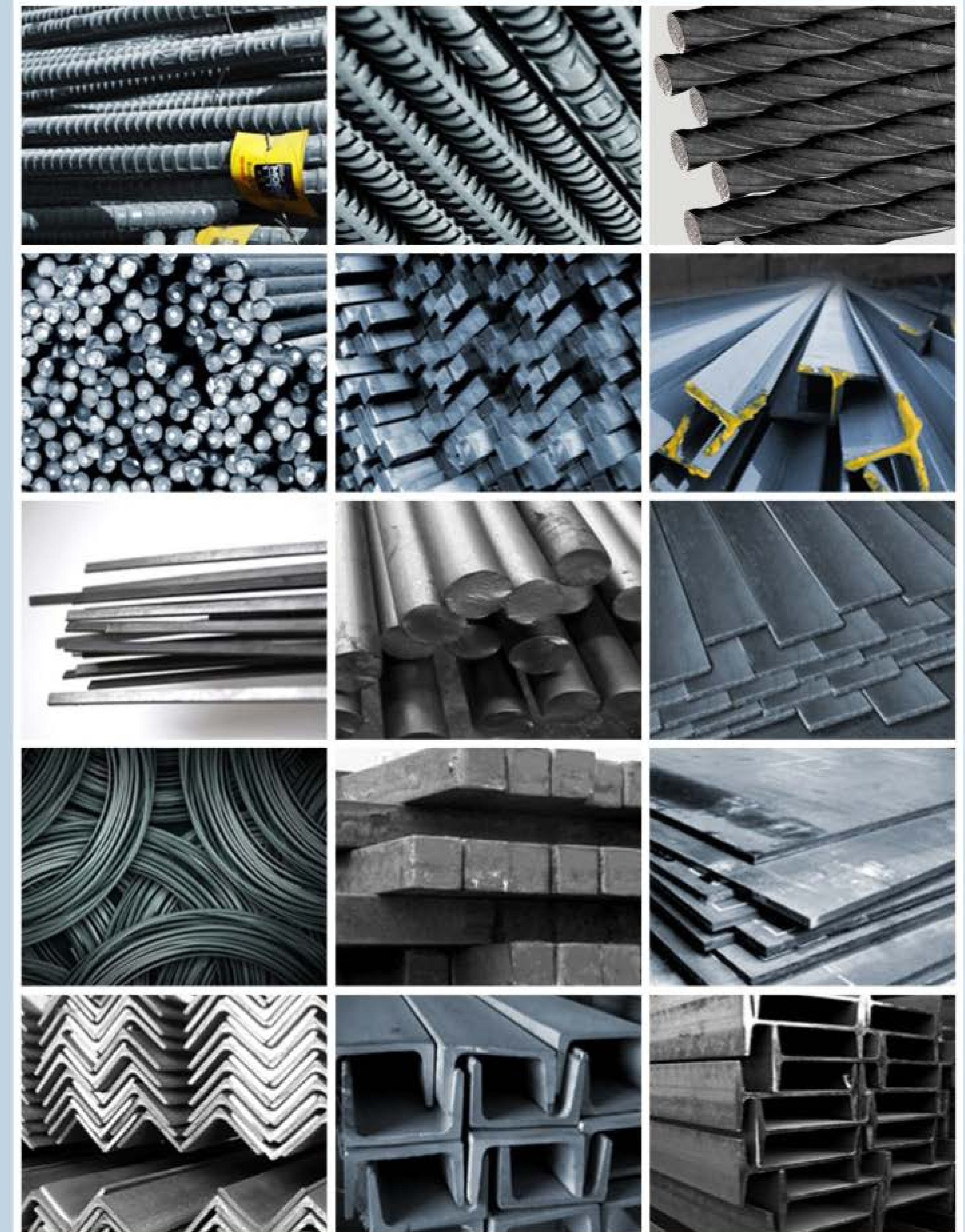
## THE IMPACT OF CENSUS

## 2017 ON PAKISTAN ECONOMIC & POLITICAL STABILITY



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## CENSUS & CONSENSUS; NEED OF THE HOUR !

The last population census was organised in 1998. The colonial tradition was to hold the decennial exercise in the year ending in one, such as 1951, 1961, etc. Pakistan kept pace till 1981 but the census due in 1991 was delayed for seven years and the next one has been pending for five.

On both occasions, it was deferred partly due to administrative challenges but mainly because the governments were not confident they could handle the political fallout.

A census generates numbers which serve as the basis for deciding the share of various groups in financial resources and political power. The shares for the four federating units are now almost decided and instituted in bodies like the National Finance Commission. But distribution within the provinces is now proving to be more contentious.

Sindh's politics rests on maintaining a delicate balance of power between ethnic Sindhis and Mohajirs. It might need readjustments if the new census throws up somewhat different percentages. Similarly, groups in other provinces pitching for independent political identities, such as Seraikis in Punjab, Hazaras in Khyber Pakhtunkhwa and Pakhtuns in Balochistan, will also be keen to know the findings of the census which could have an impact on their claims and causes.

All groups aspiring for shares in state power and resources have been wary of census figures and complain of under-enumeration which they see as part of a conspiracy to deny them their due rights. While some of these misgivings can be blamed on the larger-than-life ambitions of these groups, a major chunk owes to the mistrust we all have in our governments' ability to conduct any exercise that requires universal outreach. How can we trust the state machinery that has not been able to administer polio drops to all its toddlers in over two decades?

The upcoming exercise cannot escape such scepticism but there certainly are ways through which this could be addressed to a large extent. The General Statistics Act passed in May 2011 has merged three institutions, the Federal Bureau of Statistics, the Population Census Organisation and the Agriculture Census Organisation, into one body named the Pakistan Bureau of Statistics. This has put to rest the age-old problem of duplication of efforts.

An institutional stumbling block has been the definition of a basic unit for enumeration. An electoral block delineated by the Election Commission while preparing electoral rolls did not collate with the census block mapped by the Census Organisation. Then NADRA followed its own coding while issuing identity cards. As a result, the three could not benefit from each other's data resources. Thankfully, there is agreement now on unifying the basic enumeration units and equally importantly, it is being done by the Bureau on Google's satellite map. These measures will make data collection more efficient but there is more to census than collection efficiency.

It is important, from the point of view of democratisation of governance, that the administrative boundaries overlap perfectly with the political/electoral limits and the same should then be followed by enumerators.

**Meher Kashif Younis**  
Editor in Chief

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# THE IMPACT OF CENSUS 2017 ON PAKISTAN ECONOMIC & POLITICAL STABILITY



The signs are ominous: Sindh, which till very recently has been euphoric over the census, now fears that it may not be able to count all its citizens in time.

The chief minister was recently informed that more than 30 per cent of the province's population is without computerised national identity cards (CNICs).

With less than two months left to the scheduled date of the census, this spells doom for Sindh: its expected gains from an anticipated rise in population numbers is now at stake.

The other end of the spectrum is absolute denunciation and ire: in Balochistan, Mir Hasil Bizenjo, the chief of the National Party and the incumbent federal minister for ports and shipping, argued last December that the census should be put off in Balochistan and KP till "4 million Afghan refugees" return to Afghanistan and all the Baloch who have gone into exile return, else the Baloch population will be under-reported.

Clearly, emotions are running high and there are still qualms about how the entire exercise of counting heads and homes will pan out.

The resistance to holding a census is indicated by the fact that it took the Supreme Court to push the government into ensuring that it is finally carried out.

Population counts ought to happen

every 10 years. The scheduled date of the census as announced by the PM's office and ratified by the Council of Common Interests is March 15, 2007.

As such, while the necessity of holding a population and housing census seems uncontested, holding it to all stakeholders' convenience has proven to be almost always impossible.

Were any provinces to pull out now on any pretext, the entire exercise would be rendered meaningless as the numbers would be incomplete and fraught with inaccuracies.

For scholars, planners and decision-makers of the country, the population census holds the key to explaining what has changed in the country since 1998 when the census was held last and how much has changed.

Instead of relying on estimates and guesstimates, the results of the census will show urbanisation trends, inter-provincial and intra-provincial migration, the gender configuration, the (un)employed population and educational attainment.

There will be some direct indicators about health and poverty but also some indirect ones that will help paint a larger, more revealing picture. There will be statistics about homes built and the homeless, of lighting and potable water, the number of transgender, the physically challenged and above all, how many mouths to feed in the country.

From a citizens' perspective, a census is always a win-win. Which begs the question: who really is afraid of the census?

## Punjab

The fears are quite palpable in the corridors of power in Punjab: its population cage share might well drop if the contested figures posted after the 2011 housing census are taken into account.

The pitfall, however, is that the 2011 housing census has already drawn criticism from various quarters for massive inaccuracies.

Population has of course been Punjab's claim to the lion's share of power and resources in the country. With



the province witnessing enormous social and economic changes over the past 18 years, its population growth rate has consequently slowed down.

In the previous census, a slower per annum growth rate was recorded in Punjab (2.64pc) than in Sindh (2.80pc). Were the trends to continue 19 years later, it will have a very direct impact on Punjab: the new population count may well result in the reduction of Punjab's seats in the National Assembly, transferring them to another federating unit.

Out of the 272 general seats, Punjab currently has 148 seats or 54.4pc. Sindh is next with 61 seats (22.4pc), followed

by Khyber Pakhtunkhwa with 35 (12.9pc) and then by Balochistan with 14(5.1pc).

There are 12 seats (4.4pc) currently representing the Federally Administered Tribal Areas (Fata) while the federal capital has two general seats or 0.7pc representation.

Any decrease in Punjab's seats will result in one or more of the others benefitting.

The census may also have an impact on quotas in jobs and the distribution of the federal divisible pool (FDP) funds through the National Finance Commission (NFC).



Already, the federal government is seeking a six pc cut in the size of the FDP.

If this proposal goes through, an additional 250 billion rupees will be transferred to the centre at the cost of the provincial share.

With stiff resistance from Sindh and Balochistan, any hopes of a new NFC award being agreed upon before the national budget for 2017-18 remain slim.

Punjab is reported to have reservations but would happily accept the proposal of following the existing 9th NFC Award formula; this would ensure that newer population realities are not accurately reflected in the new NFC award.

Nobody wants to disturb their power base a few months before the elections.

## Punjab's elite

Power is derived from land in Punjab but land is no longer available as large landholdings.

According to the Agricultural Census, 2010 which was carried out by the

Pakistan Bureau of Statistics (PBS), only 20pc of private landholdings in the country were above 100 acres. In Punjab, only 9pc of private landholdings were above 100 acres.

The road network being built in the province by the Sharifs has dented traditional social hierarchies and connected many in the rural sector to nearby cities and commercial centres.

This, in turn, has resulted in those people carrying urban values back to the village and impacting others there.

The rise in education numbers over the past 18 years as well as the slower population growth are both results of proliferating urban attitudes.

Smaller centres such as Gujranwala have now seen unprecedented growth and investment.

As reported in the 1981 census, Pakistan's urban sprawl was 28.3pc (total reported population 84.25 million) whereas in 1998, the figure rose to 32.5pc (total reported population 132.35 million). This is expected to climb even further in 2017.

It is also important to note that the urban growth rate was much higher than the rural growth rate in both 1981 and 1998.

The urban growth rate in 1981 was 4.38pc and the rural was 2.58pc; the corresponding numbers for 1998 are 3.5pc and 2.2pc respectively. In the 1998 census, Sindh appeared to be the most urbanised province (48.9pc) but Punjab whose urban population is pegged at 31.3pc in the same census has the largest number of urban dwellers.

Lahore's population as registered in the 1998 census is 6,318,745 only 8.6pc of the overall urban population of Punjab.

With Lahore's share of the urban population of Punjab going down even further, questions may validly be raised about the disproportionate resources allocated to the provincial capital at the expense of the rest of Punjab.

With the profound socio-economic changes that are taking place in the rural areas and small towns of Pakistan, and

particularly in Punjab, it can safely be concluded the trend of urbanisation may appear to consolidate itself in the upcoming census.

## Punjab's Bureaucracy

For many years, Punjab's bureaucracy has enjoyed great privilege and perks in return for facilitating those who derived power from land. If the 2017 census goes ahead as planned, the bureaucracy's workings will have to change dramatically since they will no longer be set up to serve only the landed elite of the province.

*"The future of thousands of students is at stake but what we can do when the government itself engages us in these duties."*

Rana Liaqat Ali  
General Secretary PTU

In practice, this means that Punjab's bureaucrats will have to reconfigure the rural-urban divide in the province and make policies afresh.

For example, the Punjab government has revamped its health infrastructure and claims to be offering great remuneration packages for young doctors in the province.

Many argue, however, that the doctors are largely after the jobs on offer in urban centres and the government has been unable to push highly-trained professionals into semi-urban and rural areas.

Crucially for Punjab, though, the inter-provincial water accord will have to be reworked since the province's current share in agriculture will need to be reassessed.

Due to population variance in central and southern Punjab, we may also see relations between the two get strained.

In Pakistan, policy has largely had an anti-poor bias and Punjab has been no exception.



The road transportation network has been developed to suit the city's commuting needs rather than improve the lot of its under-privileged dwellers. In theory, policy objectives are to prioritise socio-economic development in various administrative units but in practice, housing and food remain at the bottom rung of government priorities.

But for these to become pressing concerns, someone will have to give up their existing privileges and perks. In Punjab, this burden is likely to be shouldered by its bureaucracy and hence the reluctance to have a housing and population census conducted afresh.

#### KP's bureaucracy

The census assumes greater significance in KP because it allows the government to take stock of what has survived in the embers of war, how many people have lived, and how many perished to militancy.

The move to make Fata as part of KP is also welcome as it brings tribal areas into the national mainstream.

This has great political advantages: the swell in population numbers will allow the province to have more seats in the National Assembly, enjoy a larger share in the NFC Award, and have integrated governance.

But for KP's bureaucrats, any such move will need to come with separate funds for Fata's development, which are not drawn from the province's existing budget.

The federal government's proposal to cut the size of the FDP is meant to allay these concerns: if the other provinces give up their share, some of the money will then be redirected to the development of Fata.

Till now, Sindh and Balochistan have strongly resisted the move.

Meanwhile, Aftab Sherpao, chief of the Qaumi Watan Party and an ally of the Pakistan Tehreek-i-Insaf, claimed last week that a conspiracy to undermine the "Pakhtun majority" in the country's population was being hatched by the federal government.

He termed any attempt to do so to be



worse than rigging in national polls.

#### Balochistan's Baloch

Two chief ministers Sanaullah Zehri and his predecessor Dr Malik Baloch have resisted a census in Balochistan.

Their argument: the Baloch cannot be allowed to become an ethnic minority in Balochistan.

In such an eventuality, it would be difficult to allay the concerns and reservations of Baloch nationalists who have been alleging that the centre has historically been unfair to them.

Balochistan's population is largely divided between the Baloch and Pakhtun, with a significant minority of Hazara and Punjabi populations.

But it's the Baloch and Pakhtun that are face to face when it comes to benefitting from resource allocation in the province.

The Pakhtun belt in northern Balochistan now witnesses the gradual encroaching of Pakhtun people in all spheres of life, much to the chagrin of Baloch nationalists.

The Baloch concern is that the inclusion of over a million Afghan refugees, many of whom carry Pakistani CNICs, will further marginalise the native Baloch.

Despite being the incumbent federal minister for ports and shipping, his argument to delay the census in Balochistan and KP is, in fact, a move to ensure that the Baloch are not counted as an ethnic minority in Balochistan.

#### Urdu-speaking populace of Karachi

When the Advisor to Sindh Chief Minister on Information Maula Bakhsh Chandio urged Urdu-speaking and other

migrant communities to describe themselves as "Sindhi" in the census, it touched a raw nerve in many of Karachi's political circles.

Some Sindhi nationalists have been loathe to consider the Urdu-speaking people as "new Sindhis" and this dynamic has historically resulted in greater acrimony between Sindhi nationalist parties and parties of Mohajir nationalism.

The response in Karachi was the distribution of leaflets urging the "Mohajir" people to stick together to safeguard the future of their next generation, and to ensure that "no Sindhi wadera can usurp their rights in Karachi."

These leaflets urged the Urdu-speaking, the Memoni-speaking and the Gujarati-speaking to register themselves as "Urdu-speaking."

The desire for job security is slowly replacing the earlier concept of security associated with marriage.

It is envisaged that these trends will be



more observable in the results of the 2017 census all across small towns and big cities of the country.

We are often told that change is incremental. But when counting heads and homes after 19 long years, change will seem to be monumental.

This will be an illusion of sorts had we had the census back in 2008, changes to Pakistan's society and polity would not be registered as an upheaval.

The 2017 census is expected to turn the tables on the existing status quo and urge policy makers to rethink their paradigms and priorities. Whether they shall do so remains open to debate.



#### Zakir Ullah Khan

**Tanner Mirrlees: Why do you think it is important for progressives to understand the media and participate in media democracy struggles?**

**Robert Machesney:** The media is one of the key areas in society where power is exercised, reinforced and contested. It is hard to imagine a successful left political project that does not have a media platform. The media was not a major political issue for earlier generations of the Left. In the 19th century, a very different media system was in place. 19th century socialists wouldn't be talking much about the need to criticize the New York Herald Tribune because they weren't organizing people who read the New York Herald Tribune. It was much easier and more common for the Left to have its own media. The workers had worker papers. They weren't consuming mass produced commercial media products.

But this started changing in the first half of the 20th century. Capital accumulation colonized much more of popular culture and communications. Capitalism became the dominant mode of producing and distributing information in society. The media has since become central to politics; it is a central concern for anyone that wants to understand politics and intervene politically. The challenge for us is to understand, use and struggle to change the existing media.

**Tanner Mirrlees: The corporate media play a dominant role in political struggles. Despite the power of the mainstream media, the Left still has its own media network. However, I worry that much Left media tends to be read almost exclusively by people**

*Marx said about the media: "The class which has the means of material production at its disposal has control at the same time over the means of mental production, so that thereby, generally speaking, the ideas of those who lack the means of mental production are subject to it. The ruling ideas are nothing more than the ideal expression of the dominant material relationships, the dominant material relationships grasped as ideas." Since Marx's time, "the means of mental production" in society have expanded into a globalizing capitalist media and cultural industry that encompasses both print and electronic mediums, news and entertainment. The media is a contradictory institution; it is once a means of production and a terrain of struggle. "The class that is the ruling material force of society" continues to rule the media and therefore is a very powerful "ruling intellectual force" in society. Yet, control of the media by the ruling class is being opposed by media democracy struggles.*

**Robert McChesney**, eminent historian and political-economist of the media, founder of the Free Press, leading U.S. and international media activist, and author of *The Political Economy of the Media: Enduring Issues, Emerging Dilemmas* (Monthly Review Press, 2008) and *Communication Revolution: Critical Junctures and the Future of the Media* (Tanner Mirrlees) Here are the excerpts from an interview with **Robert McChesney**.



that have already participated in or have a historical understanding of socialist struggles. How can we move from the level of building and maintaining our own Left media to engaging in a broader media struggle?

**Robert Machesney:** In my experience and in the experience of others who study the media, we wrote articles and books that outlined the many problems of the corporate media. We critiqued the media. We gave many speeches. We came to a point where audiences asked: "what do we do about it?" "What should we do about the problem of the media?"



There was a traditional Left response available at the time: "we understand that the media is not separate from, but an integral part of how capitalist power is upheld in society; when we make the revolution or the revolution just happens, the problem of the media will be resolved then." This was an unsophisticated answer.

Of course, very few people on the Left were that simplistic. Many understood that the battle over the media, just like the battle over the workplace, was a key part of engaging with and contesting power. Educating people about the media and fighting to make changes in the short-term, not just in the long term, became of utmost importance. Instead of waiting for the revolution to happen, we learned that unless you make significant changes in the media, it will be vastly more difficult to have a revolution. While the media is not the single most important issue in the world, it is one of the core issues that any successful Left project needs to integrate into its strategic program.

**Tanner Mirrlees: What are the most significant sites of political struggle for media democracy activists in the U.S. today?**

**Robert Machesney:** There are three overriding and connected issues that are central to media democracy activism in the United States. The first issue is the Internet. The battle for network neutrality is to prevent the Internet from being privatized by telephone and cable companies. Privatization would give them control over the Internet, would allow these firms to privilege some information flows over others. We want to keep the Internet open.

What we want to have in the U.S. and in every society is an Internet that is not private property, but a public utility. We want an Internet where you don't have to have a password and that you don't pay a penny to use. It is your right to use the Internet. The benefits of a public Internet are numerous. It would end the digital divide, which remains a very serious problem in the U.S. and worldwide.

**Tanner Mirrlees: What is the greatest obstacle to achieving network neutrality?**

**Robert Machesney:** The political influence of telephone and cable companies, which are state created monopolies. The one thing these companies are good at is buying off and controlling politicians. That is their "comparative advantage" over other firms. They are not any good at the actual business of telecommunications service provisioning. In the realm of Internet service provision, the telephone and cable companies play a parasitic and negative role.

They do nothing positive. Their future is predicated on their ability to privatize the Internet and force people to use their version of it and pay an exorbitant highway robbery prices for that use. This applies to cell phones companies as well. All of these firms rank in the bottom five of the most hated industries in the country, with the banks and other predatory lenders. Their power rests upon their ability to successfully buy off politicians, just like the banks and predatory lenders. Our struggle to make the Internet into a public utility conflicts with the interests of telephone and cable firms. So it is a tough fight, but a very important one.

**Tanner Mirrlees: Has the network neutrality struggle encountered any public resistance in the USA? American neoliberal ideology associates public utilities with "Big State control," a threat to the "free" marketplace. The belief is that there is an**



**inherent antagonism between media capitalism and the U.S. state. But as your work shows, there is a big contradiction in this neoliberal ideology. You've highlighted how the large telephone and cable companies currently arguing for the total privatization of digital communications using the slogan of the free-market mystify how their existence was and continues to be dependent upon U.S. government policy and regulation. Are U.S. citizens aware of the extent to which the U.S. state has always played a direct and indirect role in facilitating and legitimizing the corporate media system?**

**Robert Machesney:** They certainly would be if they were forced to read everything I've written. Fortunately, for a free society and unfortunately, for my book sales, most people are not aware of this fact. Obviously, the last thing the phone and cable companies are going to do is publicize the fact that they are state-constructed monopolies and that their entire business model is based on owning politicians. They spread the myth that they are the victors of free-market competition.

It is crucial that we expose and debunk this myth. We also need to reveal the price we pay for these state-created corporate monopolies, which exploit public subsidies.

Nevertheless, we have had much success around the net neutrality struggle. I expect within the next twelve months, we will have a formal law passed by U.S. Congress, signed by President

Obama, and backed up by orders from the Federal Communications Commission (FCC). Network neutrality is well on its way to becoming the new law of the land.

**Tanner Mirrlees: By making net neutrality the law of the land, is there any risk of lending support to the accumulation interests of digital capitalism's dominant corporations? Is the network neutrality fight also expressive of a rivalry between old media interests such as the telephone and cable companies and the interests of new media firms such as Google, eBay, Amazon, and Microsoft?**

**Robert Machesney:** Absolutely. One of the reasons we've been able to win this fight is that most of the new digital capital community is not supportive of the telephone and cable monopolies either. We have been in bed with some media companies that on other issues we are mortal

enemies with. For a lot of people on the political Left who practice their politics on a barstool, we've committed a high-crime and misdemeanor for building a short-term alliance. But I've learned, by participating in over a decade of specific media struggles, that when you are in the short-term and you are fighting to win, sometimes you make tactical alliances. You don't sacrifice your principles and embrace someone else's lame political agenda. If you want to win public credibility and advance a progressive media agenda that actually has a broad impact, this is what you do. That is how politics works.

Most progressives understand this. But there is always going to be those who say: "here is a checklist of seven-hundred points that we think reflect the ideological foundations of the Left today. And everyone we work with is going to have to agree to all seven-hundred points or they are our enemies." This old approach to politics is paralyzing. You will never ever, in any circumstance, win any struggle at any time. That being said, we have a long way to go. At the moment, the battle over network neutrality is not to completely eliminate the telephone and cable companies. We are not at that point yet. But the ultimate goal is to get rid of the media capitalists in the phone and cable companies and to divest them from control.

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**Dr. Akmal Shirazi**

SSE has become the latest energy provider to raise prices for domestic customers, their announcement of a 14.9% hike in electricity bills coming less than a week after E. On's own 8.8% rise to dual-fuel bills. Their news now means that all but one member; British Gas of the Big Six has raised prices for the spring, yet aside from all requiring their customers to pay more for energy, they have something else in common.

Namely, they've all blamed their respective price increases on Government policies regarding renewable energy. Even though some of them, including power and Scottish Power, have acknowledged the role rising wholesale costs have played in bill rises, they've all been united in singling out the Government's environmental policies

## ENVIRONMENTAL POLICIES OF PAKISTAN

As a developing nation, many of Pakistan's environmental policies are focused on providing clean water and air to the population, and mitigating the threat posed by natural disasters, all in a sustainable manner. The country also prioritizes safeguarding the environment, the honoring of international environmental obligations and the sustainable use of resources.

One of the government's goals is to increase the public's embrace of environmental management issues. The government has also been placing a greater consideration on environmental concerns when making decisions. Key specifics for Pakistani environmental policy include preserving agricultural soils, better irrigation, preserving bodies of water, maintaining biodiversity, better energy efficiency, managing urban waste and developing renewable energy sources.

and efficiency schemes as a major driver of domestic costs. Such schemes include the Renewable Obligation, Feed-in Tariffs, and Contracts for Difference, and given that they all have to be paid for somehow, there's little doubt that they're an expense when taken on their own.

However, to take them and their costs in isolation would be to miss the bigger picture, which is that, as a whole, they result in bills that are lower than they would've been without them. For instance, in November 2014, the Department for Business, Energy and Industrial Strategy (DEIS) published an analysis of the effects of various green levies on the typical domestic energy bill. While they unsurprisingly found that Government policies set the typical energy customer back around £89 (or 7%) a year on her dual-fuel bill, they also found that because of the effects of these policies on wholesale costs and efficiency, they brought in an overall net saving of £90. In other words, renewable policies and subsidies pay for themselves and then some, indicating how energy providers are being some-



## ENVIRONMENTAL ISSUES OF PAKISTAN

This country is currently going through a period of massive population growth, and this development is driving most of the country's environmental issues. Nearly 180 million people now live in Pakistan, which makes it the 6th most populous country in the world. Pakistan also has one of the highest population growth rates and based on estimates the population will double in 25 years.

This population size and growth rate threatens to overwhelm the country's natural resources. While Pakistan is a highly agricultural society, much of its land is arid and water is already scarce in many parts of the country. Additionally, much of the water that is available is polluted, due to insufficient sewage systems.

The Indus River is a major source of water in Pakistan and the agricultural industry relies heavily upon it for irrigation. The river is fed by glaciers melting in higher elevations and climate change is threatening to substantially shrink these glaciers. In the short term, climate change is expected to increase deadly flooding within the Indus River Valley. In the long term, less water will only increase stress on the river and surrounding ecosystems. Pakistan is also being decimated by rampant deforestation. With just 2 to 5 percent of its original tree cover, deforestation could soon lead to more devastating floods, landslides and higher carbon emissions. ■

what inaccurate if not simply misleading to suggest that bills are rising because of them.

And as the DEIS's analysis revealed, environmental policies make for lower bills not just because they increase energy efficiency, but because an increased supply of energy results in decreased wholesale costs. More specifically, as a proportion of the average energy bill, these costs have dropped quite dramatically in recent years, descending from 54% in 2010-11 to 34% in 2016/17.



Yet if this weren't already indication enough of how energy providers are being disingenuous in blaming environmental policies, more indication is provided by how the cost of green levies has been dropping. According to Ofgem's most recent breakdown of bills, Government policies made up £109, £100 and £86 of a typical fuel bill in 2013, 2014, and 2015 respectively, as the Government actually reduced subsidies for solar power and other green energies.

Equally telling is the fact that, in paral-

## CLEAN TECHNOLOGY IN PAKISTAN

The clean technology industry in Pakistan is still in its nascent stages, yet there are signs that the country is poised for a clean tech revolution in the not-too-distant future. For now, the country largely relies on the importation of clean technology. In 2011, Pakistan's Alternative Energy Development Board launched a five-year plan to acquire renewable energy technology from China and Germany. Despite that endeavor, Pakistan's wind power was just 105.9 MW in October 2014, which compares unfavorably to, for example, the 1,320 MW generated by California's Alta Wind Energy Center. However, many other wind farms are now in the development pipeline, including a 249.6 MW farm backed in part by China's stateowned Harbin Electric International. Solar power in Pakistan is just getting off the ground. In May 2015, the country opened its first solar power plant. Also built in cooperation with China, the Punjab province facility generates 100 MW of power and is projected to generate 1,000 MW by 2016. In addition to backing wind and solar projects, China has also backed the creation of a major Pakistani hydroelectric plant. The hydro plant is funded by China's Silk Road fund, which is intended to build stronger connections from China all the way to Europe.

### A CLEAN FUTURE?

Pakistan's status as a developing country what significant political instability means a clean future is probably not the country's first priority. If Pakistan were to embrace more clean technology and renewable energy sources, it appears it would do so with heavy backing from China. ■

lel with this drop, the earnings before tax of energy providers has been rising. After coming in at £8, £35 and £30 per annual bill in 2009, 2010, and 2011, they rose markedly to £53 in 2012, where they've more or less remained (in 2015 it was £47). This is a significant rise, if only because it shows how the highlighting of green subsidies conveniently distracts public attention away from a component of energy bills that has been generally increasing.

In light of this, it becomes tempting to propose that the Big Six energy providers are using environmental policies as a convenient scapegoat. In fact, it's tempting to go even further and to suggest that their blaming of environmental policies stems from a fundamental opposition to renewable, which they fear will undermine their dominance of the energy market.

Of course, such a theory can't be decisively proven, yet it's interesting to note that the Government's subsidising of new

entrants into the energy market confronts the Big Six with the "risk of their business models being out-competed by [the] price competitiveness of the renewable energy sector." It's also interesting to note that the share prices of energy providers are affected negatively by news surrounding climate change and the renewable sector. Since their financial

performance is adversely affected in this way, it's likely that their highlighting of policy costs may be an economic and political move, one intended to lower the public's appetite for greener, carbon-neutral energy. Yet for the sake of the environment and for energy bills let's just hope it doesn't work. ■



# Tackling the Menace of Counterfeit Medicines



## Dr Tariq Saeed

In a country where approximately 30% of all medications sold are counterfeit, a Pakistani start-up ProCheck is on a mission to reduce this figure, ensuring that people have access to safe and authentic medicines. This is a welcome initiative given that several instances of fake drug usage have endangered hundreds of lives in recent years.

Incorporated in 2014, the start-up is in the process of establishing collaborative partnerships with the largest pharmaceutical brands operating in the country. Once these agreements are finalised, every strip/bottle of medicine manufactured by these companies will have an eight-digit alphanumeric authentication code imprinted on it. To verify that the medicine they have purchased is original and has not expired, all buyers need to do is to SMS the code to 9900, after which they will receive a message confirming whether or not the medications are valid.

Currently, this code is imprinted on



the tablets of only eight brands, but Saim Siddiqui, CEO, ProCheck, believes that his company will be able to bring almost 20 brands on-board by the end of the year. This will allow the company to imprint the verification code on almost 35 million strips manufactured in the next few months. As the number of Smartphone users and health-aware individuals in Pakistan grows, more people are likely to take advantage of this service.

Furthermore, the Drug Regulatory

Authority of Pakistan (DRAP) is considering legislation to make these verification checks mandatory; the pharmaceutical industry watchdog has already imposed a ban expected to take effect from July, 2016 on the sales of unregistered herbal products. In addition to keeping people safe from the perils of counterfeit medicines, ProCheck's services will enable pharmaceutical companies and health professionals to regulate self-medication and reduce the incidence of drug overdose in Pakistan.

The writer is a general practitioner.



## MASSES FACING GROWING THREAT FROM COUNTERFEIT MEDICINES: PEW

The Pakistan Economy Watch (PEW) said unsuspecting masses are facing growing threat from fake medicines which must be tackled immediately. Weak laws, lax supervision, minor punishments and nominal fines are enough to attract criminals to this low-risk and high-return business while the same is insufficient to discourage investment in the pharma sector, it said.

Government should take immediate action to dislodge the criminal networks earning billions from this cynical trade, said Dr. Murtaza Mughal, President PEW.

WHO report suggests that ratio of fake medicines in developed countries is one percent; it is 30 percent or more in developing markets while 30 to 40 percent medicine sold in Pakistan are fake.

Dr. Murtaza Mughal said that a common Pakistani spends 77 percent of his or her health budget on medicines which is around Rs 200 billion annually of which a sizable number are fake drugs prepared in Karachi, Lahore, Rawalpindi or Multan. Pakistan has four thousand registered pharmacists and over one hundred thousand unregistered practitioners who continue to play with the lives of masses.

According to WHO Pakistan stands 13th in dollar 431 billion fake medicines market with neighbouring India and China on the top.

Pakistan stands on 10th position among countries trying to send counterfeit medicines in the highly regulated US market, said Dr. Murtaza Mughal.

Globally fake medicines are responsible for seven hundred thousand deaths annually, he said.



**اعلان جنگ**  
جعلی دواؤں کے قاتل کاروبار کے خلاف  
شہباز شریف کا عوام کا  
جعلی دواؤں کا دھندلا۔۔۔ موت کا کاروبار  
حکومت اور عوام مل کے کریں گے وار!  
عوام کی زندگی اور صحت سے کھینچنے والے کروڑوں روپے کے خلاف وزیر اعلیٰ شہباز شریف کی ہدایت پر فوری ایکشن کا آغاز۔  
آپ بھی حکومت کا ساتھ دیجئے۔ جعلی دواؤں کی تباہی میں ملوث افراد یا اداروں کی تباہی کیجئے۔۔۔  
0800 99000 پتھر اطلاع دے کر ہاپے 10 لاکھ روپے انعام  
آپ کا نام سب سے زیادہ رکھا جائیگا۔



# Fertilizer Industry in Pakistan

..... An Analysis

## Syed Taimoor Hassan

The agriculture sector is important because it accounts for:

- 24% of the country's GDP
- 50% of the employed labor force
- 65% of the country's total export earnings making it the largest source of FX earnings
- Forms the basis for over 50% of industrial production
- Has growth rate of 3-4% per annum

And that population growth is roughly gauged at 2.3% p.a. (current population: 134mn) compared to 2.2% p.a. in India and 2.4% p.a. in Egypt. With larger population comes greater demand for food consequently higher demand for grain.

### Problems in the agriculture sector

Our agricultural land is facing many problems and some of the major problems are:

1. The conversion of arable land into non-agricultural uses
2. Water-logging and salinity
3. Land erosion scenarios

### The conversion of arable land into non-agricultural uses

The total land area of Pakistan is nearly 80 million hectares and the total arable land area is 23 million hectares. With the population presently at 134 million and the population growth rate at 2.3% p.a., the situation is bound to put

tremendous

pressure on the arable land of Pakistan in the near future. Our current and potential agricultural land is reducing and shrinking tremendously. It has been estimated that throughout the country, everyday approximately 500 acres (1 acre = 4,840 square yards) of farmland is taken out of agriculture by the expansion of settlements, roads, factories and many other non-agricultural activities. It is predicted that if this trend continues then after every decade approximately a million acre or more of crop land would be taken out of agriculture in our country.

Arable land is a basic and major resource for the production of human food. But it seems that the expansion of human population and human activities are reducing the availability of land, suitable for food production at an alarming rate. Expanding population demands more food on one side and devours agricultural land on the other side, which is a matter of great concern for everyone.

### Water-logging and salinity

Out of total land area, 80 million hectares, 23 million hectares is cultivable. Of the total cropped areas 18 million hectares (78%) is irrigated and 5 million hectares is rain-fed.

The annual rainfall in Pakistan varies from less than 100 mm in Sindh to

more than 750 mm in the foothills and northern mountains. About 60% of this rainfall occurs

during monsoon. In spite of a number of drainage and salinity menace control schemes being undertaken, the salinity and water-logging problems positively persist and each year 40,000 hectares of irrigated land is lost to water-logging and salinity. On the one hand, the nation needs more food to fulfill the demands of its increasing population while on the other hand, each year the cultivable commanded area (CCA) is decreasing due to this twin menace.

Pakistan's canal irrigation system is one of the best in the world and is very essential for Pakistan because of the total area under irrigated agriculture, about 9.6 million hectares is arid, 3.8 million semi-arid and the remaining area is characterized as sub-humid. No doubt, irrigation system has increased agricultural production but on the other hand has created the problems of salinity and water-logging.

Percol



ated irrigation water has raised the underground water level and subsequently water-logging. Excessive salinity of the underground water has also harmful effects on the soil body. Ascent of dissolved minerals of irrigation water through capillary action increases the soil at salinity and damages its fertility. It is rightly said that water-logging is the cancer of the soil. Because of poor soil drainage and improper irrigation practices, the huge amount of arable land is waterlogged and has become saline now.

This problem has destroyed millions of hectares of farmland in the country with around 9 million hectares of land being cultivable waste. Water-logging and deposition of whitish crust of salts are changing farmland into unproductive land and many areas, the crop fields are reduced considerably. Reports say that during every five minutes, 0.4 hectare fertile farmland is taken out from agriculture, because of this problem. Such land losses must be checked by draining the affected areas and by planting hydrophyte.

Over the years, about 40 per cent of the irrigated cropping land in Pakistan, which produces around 90 per cent of the total agricultural output of the country has come under water-logging. The impact of salinity on agriculture productivity is similarly severe, robbing Pakistan of about 25 per cent of its potential production of major crops. This is happening in the most productive and fertile agricultural areas of the country and it is clear that unless the twin menace of water-logging and salinity is countered on an urgent basis and with a new approach, agriculture productivity of the country would be lowered. The reason of these two problems is mainly because of

irrigation without drainage. The situation has been compounded by over-irrigation which many farmers carry out in the belief that it would help increase produce. Considering that 80 per cent of Pakistan's cultivated area of about 17 million hectares is irrigated network, the Indus River irrigation system, the threat to agriculture is not just serious, it is grim and could result in emptying the country's food basket. Implications of water-logging and salinity can be described in one word: "disastrous."

It is not that the problem has been left unattended. Numerous efforts have been made in the past 40 years to counter water-logging and salinity and retrieving lost or damaged fields. All campaigns in this direction, however, suffered from two shortcomings. One, while affected lands were restored for cultivation, the malaise continued spreading engulfing other areas. Two, overtime, drainage channels constructed to rehabilitate land, got clogged for lack of maintenance. Nature has gifted us highly diverse and favorable environmental conditions for agricultural practices. But, unfortunately, the yield per acre and per capita is very low as compared to many other countries of the world. This is mainly due to illiteracy, ignorance, lack of improved strains, poor health of farmers. By eliminating these hurdles, the productivity of the land can be improved manifold. For economic well-being of the country, these maladies must be removed through effective planning, otherwise, agriculture would remain in stress and food supply problems would become much serious with the passage of time.



### Land erosion scenarios

Erosion removes top-soil and exposes sub-soil, thereby changing its characteristic productivity. Removal of soil by erosion and subsequent incorporation of underlying material by tillage reduces the organic matter. Reduction of organic carbon is associated with reduction in ion profiles of NO3. The contents of Phosphorous, Zinc, Iron and Manganese also decrease as severity of erosion increase. The physical properties such as water holding capacity and infiltration capacity are reduced due to soil erosion, which consequently further enhances the process of erosion. The soil structure is highly variable throughout the country and largely affects its erodibility. Soils of some areas are several times more erodible than others. The soil structure and water holding capacity can be improved by green manuring, whereas heavy manuring reduces the soil erodibility up to 5 times. Developing vegetation cover can also reduce soil erodibility, because root system of plants penetrates into the soil and binds its particles in proper place. Then again, the proper usage of fertiliser in the correct dosages will also improve the soil's crop sustaining strength and reduce top soil erosion.

Although eliminating these problems would take careful planning and expenditure, but further 'disasters' can be effectively controlled through right mix of chemical fertilizers for the various types of soil conditions prevalent in our country.

### IMPORTANCE OF FERTILIZER

Food consumption is likely to rise in emerging markets where economic growth





## OVERVIEW OF THE FERTILIZER INDUSTRY

### Fertilizers-A Brief History

The fertilizer industry is an integral part of Pakistan's economy. The Pakistani fertilizer industry produces, imports and distributes various types of fertilizers. The National Fertilizer Corporation (NFC), a government corporation remained for most of Pakistan's history as the largest manufacturer of fertilizers.

After the partition of the sub-continent, the Food and Agricultural organization (FAO) entered the scene forming an agreement with the Government of Pakistan. This resulted in the initiation of Rapid Soil Fertility Survey and Population of Fertilizers project in 1958. The conclusion from these studies was that the Pakistani soil is highly deficient in Nitrogen content and thus more emphasis should be placed on Urea consumption. Secondly they also concluded that our agriculture output is 1/3 rd of our potential.

Ayub Khan's green revolution emphasized on the fertilizer sector in the Public Sector. The NFC set up Pakistan's first fertilizer plant in 1958. The first private sector plant was set up by Exxon at Dharki in 1965 at a cost of \$43 million. This was followed by Fauji Fertilizer in 1977 and Dawood Hercules later on. The NFC owned and operated six manufacturing units that accounted for the balance.

Until 1986, the fertilizer industry was highly regulated. The government fixed prices and the profitability of the manufacturers was capped at 20% of ROE. The regulated environment stifled private sector investment in the fertilizer industry, leading to a widening demand-supply gap that had to be bridged through expensive imports.

Urea prices were deregulated in 1986. However, this did not help the manufacturers significantly as urea price increases were not large enough to offset the loss incurred on selling costly imported urea at lower prices in the local market. By 1991, urea imports had risen to 584,900 tons, approximately 27% of installed capacity. Imports were not only causing damage to the local industry, but were also affecting the country's foreign exchange reserves. In 1991 the government initiated a fertilizer policy which granted special incentives for setting up new projects and expansions.

results in better income per capita because higher income would lead to increased food consumption and hence greater grain demand. With growth in arable land diminishing as a consequence of rapid soil erosion, fertilizer usage will continue to play an important role in food production. Despite bouts of industry swings in the intermediate terms, secular industry dynamics will remain robust for the industry because of the estimated 5-6% p.a. long terms growth in fertilizer demand in Pakistan and the largely inelastic food demand.

The Potassium Fertilizers raise the resistance of plants to diseases and promotes growth from root to stack. They also increase the plumpness of grains and seeds, and provides winter hardiness to legumes and other crops.

### Diminishing Growth in Arable Land

Diminishing growth in arable land must be compensated through higher crop yields and or increased use of recycled land. We believe this is best done through balanced fertilization in order to sustain food security for a population growing at 2.3% per annum. Balanced fertilization suggests the use of nutrient supply systems that maximize efficient use of nutrients by reducing losses of nutrients, improving nutrient cycling, and integrating inorganic fertilizer use with organic inputs such as nitrogen.

The use of fertilizer becomes necessary given that growth in arable land has been diminishing and food import is increasingly costlier. While nitrogenous fertilizers are predominantly used (NPK ratio 4:1:0.06), government and privately induced awareness of phosphoric and potassic type fertilizers are like to promote their greater usage. The NPK ratio a temporary area demand / supply imbalance in the intermediate term is likely to press industry margins (assuming intended capacities come on line and on time) thus long term industry outlook is positive given that more grain will likely be required to feed a growing population.

### BENEFITS TO THE CROPS

Fertilizer provides a number of benefits not only to the plants but also to the soils. The proper usage of fertilisers ensures that the soils retains its productivity and does not lose the nutrients that the crops need for sustained growth. Fertiliser gives the soil the nutrients which it is deficient in and also reduces top soil erosion. Fertilizer also improves the yield of the crops this is described in a later section of this report. Another benefit from fertilizer usage is that it provides better resistance to plants from diseases.

The Nitrogenous Fertilisers provide the plant with Higher Protein Content, Color and Growth.

The Phosphorous Fertilisers promote strong, healthy root development and helps plants mature more rapidly and thus aids in blooming and seed formation. They are also critical for the synthesis of energy regulating substances in plants

## Pakistan Super League

# PSL 2017 Final

Passion. Pride. Pakistan

Pakistan vanished barriers, winning hearts

*"This was a match between Pakistan and terrorism, and Pakistan has already won this match."*

*For all the cricketing superstars that broke new barriers and descended at the Gaddafi Stadium in Lahore, it was singing sensation and composer of the Pakistan Super League (PSL) theme Balle Balle, Shezhad Roy, who summed up the magnitude of elite cricket's return to Pakistan soil the best.*

For by the time Ramiz Raja finished screaming, "Lahore, are you ready to entertain Pakistan?" before cupping his ear Hulk Hogan-style to indicate that the crowd wasn't responding loud enough, Pakistan had commenced a new chapter in their cricket history. After years of being left languishing in the dark, cricket in Pakistan was back in the limelight with the Gaddafi Stadium shimmering under the Lahore night sky. Even if it was only for one night only at this stage, Pakistan was making a statement to the rest of the cricket world.

Standing next to Raja was Darren Sammy, who's become the face of the



PSL this season. He and four other high-profile T20 stars, all part of eventual champions Peshawar Zalmi, from around the world had broken new ground earlier on Sunday by agreeing to make the trip to Lahore for the final. They included fellow West Indian Marlon Samuels and England all-rounder Chris Jordan. And Sammy who's fast gaining the moniker of being the most liked cricketer in the world had been at his entertaining best during the closing ceremony of the PSL that was held some two hours before the final. While he enthralled a packed Stadium with the inevitable Champion dance, he also clicked selfies with the groundsmen before walking around the field along with his fellow foreign players proudly donning a red-coloured Pakistani military cap.

Sammy, the Zalmi captain, didn't fail to raise the roof with bat in hand either after walking in to bat with his team in a precarious position. He smashed three sixes or 'chhakkas' as they are referred to in the PSL, in an unbeaten 11-ball 28 that





**Players Kicked From PSL 2017**

turned the complexion of the match. One of the sixes landed up in the third tier of the stand, with Sammy brushing his bicep and bat nonchalantly as if to say 'that was easy'.

His innings took favourites Zalmi to 148 for 6, a total that was always going to test Quetta Gladiators who were making do with a slew of second-stringers with the likes of Kevin Pietersen and Tymal Mills having given the final a miss.

The most high-profile member of the Gladiators camp was in the dug-out, and Viv Richards did shake a leg to his team's theme song often as Rayad Emrit and Mohammad Nawaz ran through the Peshawar middle order to give their beleaguered team hope of doing the unthinkable and upsetting the Zalmi brigade. For most of the time after that early period, it was mainly Zalmi Tarana that resonated around Gaddafi. Sarfaraz Ahmed tried doing a MS Dhoni by promoting himself to No.4 but it was a futile attempt at stopping the Zalmi brigade.

Back at the toss ceremony, Sammy had revealed the reason behind his deci-

sion to come to Pakistan, one which got him a "thank you" from Raja.

"My good friend Lala Afridi told me, 'Bro, if we reach the final you should come to Lahore. It will be good for me and good for the country.' It is important that cricket is the winner in the end," he said.

**Extreme security arrangements**

For once, the "cricket is the winner" line didn't seem clichéd. Sammy meant it. And it made sense as well. There had been a lot of talk about the extreme security arrangements leading up to the match. Not only was the stadium surrounded by thousands of security personnel, including paramilitary forces, the fans had to go through three high-level security checks to get to the venue. But it hardly seemed to deter them as they had filled up the stadium hours before Roy broke into the catchy 'Balle Balle' to kick off proceedings.

Most of the chants from the emcees at Gaddafi were aimed at asking the crowd to show the world what the return of live cricket meant to them. And they didn't disappoint, roaring raucously every time



they were called upon. The camera obviously kept zooming into the Zalmi dug-out with the lens trained squarely on Shahid Afridi, the star of this year's PSL, who had to sit out the final due to an injury. Not like Zalmi really missed him on the field.

he PSL final also managed to reunite Wasim Akram and Waqar Younis, who after having traded hateful diatribes at each other on Twitter less than a month ago, were suddenly sharing the commentary box. If you needed one sign of how much this match meant to Pakistanis, this was it.

After what sounded like an awkward greeting Wasim going "Hello Vicky" to which Waqar responded with a "how are you Wasim bhai?". They went on to discuss their favourite topic, fast bowling, and in Peshawar seamer Hasan Ali they



found the perfect subject. There was also a lot of reminiscing by the two about their playing days when crowds would pour into Gaddafi Stadium to watch them tear opposition batsmen apart.

As it turned out, the Gaddafi Stadium unveiled two new stands for the PSL final, one named after Wasim and the other inevitably after Waqar. At one point, the wide-angle drone camera captured scenes of the city of Lahore, the busy streets and the illuminated minarets. "Look at the amazing, eternal & beautiful city of Lahore," Wasim would say, his voice barely hiding the emotion behind it. It was a poignant moment on a day there were many, on a day that cricket in Pakistan defeated all odds and enjoyed an unlikely tryst with destiny.

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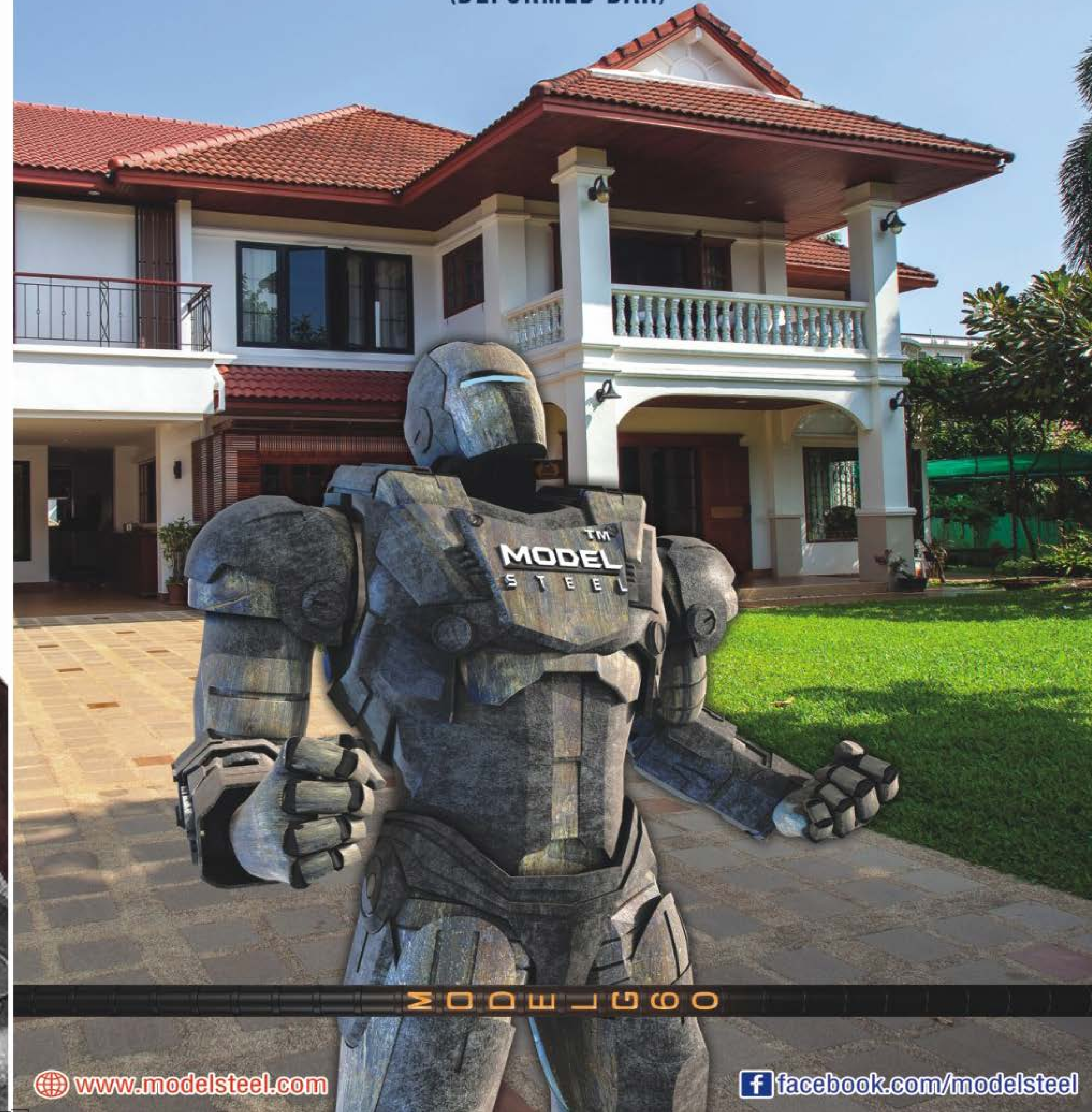
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