

PROSPEROUS  
**PAKISTAN**

# HOUSING & CONSTRUCTION



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### **Acronyms and Abbreviations**

GDP	Gross Domestic Product
PSDP	Public Sector Development Program
FDI	Foreign Direct Investment
ABAD	Association of Builders and Developers
BIM	Building Information Modelling
GFCF	Gross Fixed Capital Formation
NAPHDA	Naya Pakistan Housing & Development Authority
CAREC	Central Asia Regional Economic Cooperation
NHA	National Highway Authority
PACRA	Pakistan Credit Rating Agency
CRR	Capital Requirements Regulation
SLR	Statutory Liquidity Ratio
PPP	Public Private Partnership
PHATA	Punjab Housing and Town Planning Agency
HBFC	House Building Finance Company
EODB	Ease of Doing Business
MGI	Mckinsy Global Institute

## 1. Sector Brief

Pakistan is the **5<sup>th</sup>** most populous country in the world, with **220** million citizens, more than 60 million strong labor force and a growing middle class.

**5<sup>th</sup> Largest  
220 million**



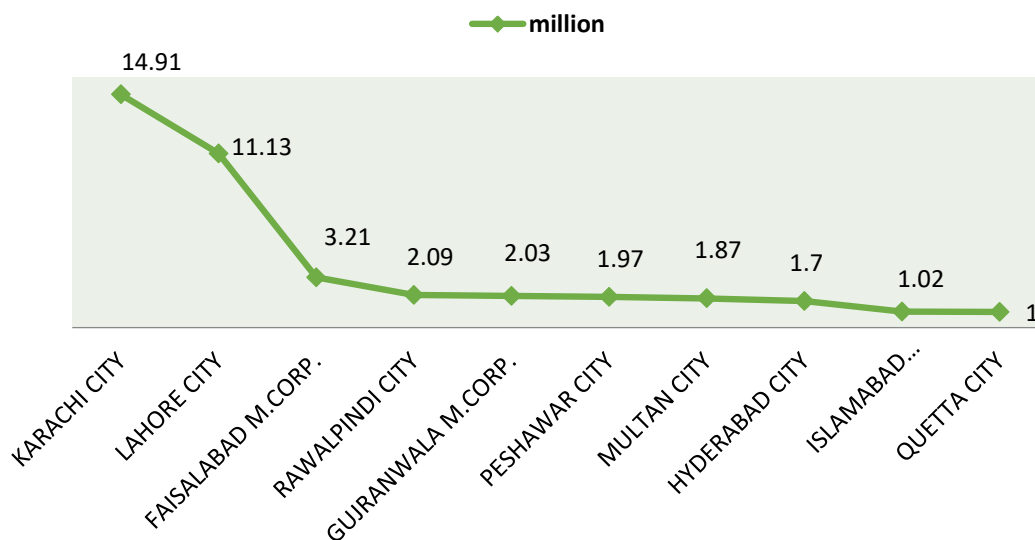
There is a growing demand for houses due to a **2.4% annual population growth rate as per census 2017.**

Out of total population, **36.38%** resides in urban areas whereas **63.62%** lives in rural parts \



Pakistan's Total urban units standing at 20.01 million and rural housing units standing at 12.19 million

### Population in million - Top Ten Cities



**Figure 1- Top Ten Cities of Pakistan by Population**





The country's construction industry accounts for 2.53% of Gross Domestic Product (GDP) according to the Pakistan Economic Survey. The sector employs 7.61% of the employed Pakistani labour force.



Construction activity grew by 8.06% due to an increase in government expenditure for FY2020 according to the Pakistan Economic Survey (2019-2020).

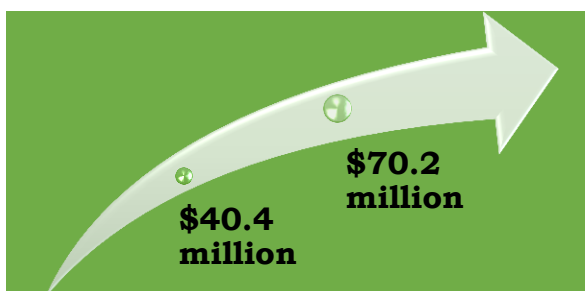
8.06%

21.3%

Gross Fixed Capital Formation (GFCF) in private, public, and government grew by 21.3% between FY2019 and FY2020.

GFCF in private sector grew by 20.6% between FY2019 and FY2020. Private sector GFCF amounted over 95% of the total.

20.6%



Foreign Direct Investment (FDI) in construction continues to increase. The FDI in construction was \$40.4 million during July-April FY18 and increased to \$70.2 million during July-April FY19.



China Pakistan Economic Corridor (CPEC) has given a boost to the construction sector through the influx of infrastructural projects including highways, power plants, and dams.

A subsidy of 30 billion PKR has been announced for the Naya Pakistan Housing Development Authority (NPHDA) to build affordable housing.



**PKR 100  
Billion  
Package**

A package of Rs. 100 Billion was announced for the construction industry. This included tax relief, deregulation policies, reduction in capital gains tax, reduction of sales tax on construction materials, and investor amnesty policies.

## 2. Growth Trends in Industry

### 2.1- GDP Growth



Figure 2 - GDP of Construction (Source: State Bank of Pakistan)

- GDP from construction increased between 2015 and 2019 mainly due to China Pakistan Economic Corridor (CPEC) projects.
- Similarly, the drop in GDP in 2019 is mostly attributed to the completion of few of the large scale projects under CPEC and delay in Public Sector Development Programme (PSDP) spending because of fiscal restructuring by the newly elected government among other reasons.

### 2.2- Public Sector Development Program (PSDP) Allocation

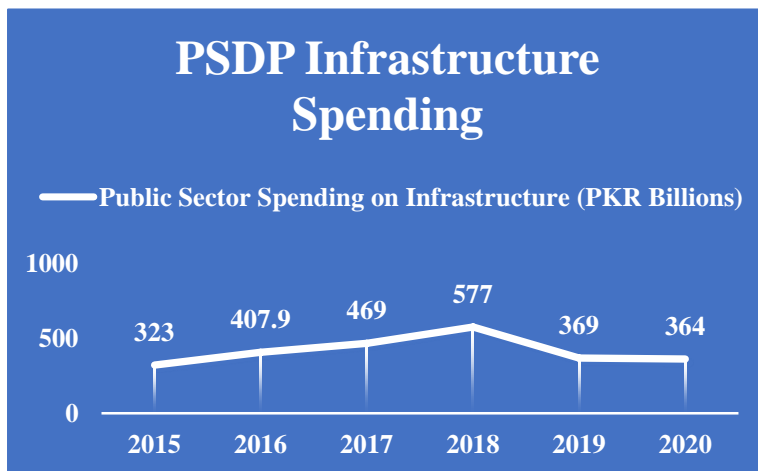


Figure 3 - PSDP Infrastructure Spending (Source: Planning Commission)

- Public Sector Development Programme (PSDP) spending has taken a dip between 2018 and 2020 due to currency devaluation causing spikes in inflation and loan commitments the country has to creditors.
- This has caused rethinking of policy and affected allocation for infrastructure projects.



## 2.3- Foreign Direct Investment (FDI) in Construction Sector

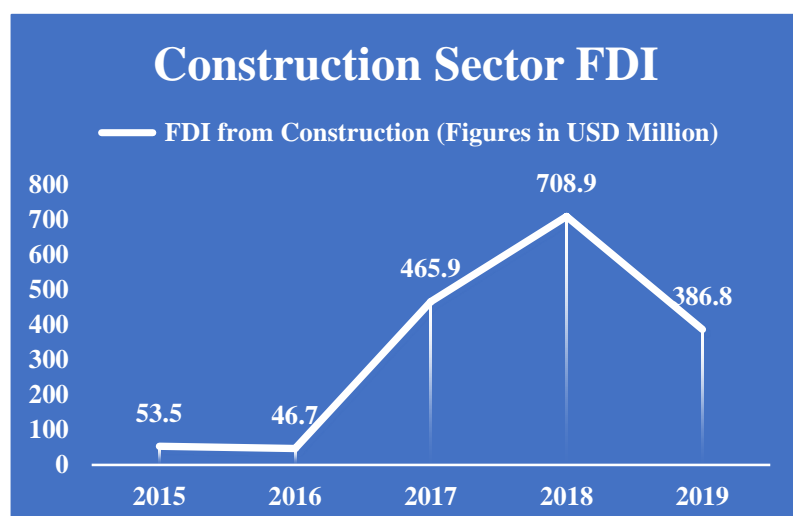


Figure 4 - FDI of Construction Sector (Source: SBP, Statistical Supplement, 2019)

Overall Foreign Direct Investment has increased between 2015 and 2019. Between 2016 and 2018 major increase in FDI is attributed to the large scale CPEC projects in the country. With the next phase of CPEC projects already in pipeline the FDI is expected to sustain its upward and sustained trend.

## 2.4- Projected Growth

Despite decreases in Gross Domestic Product (GDP), public sector spending on infrastructure, and Foreign Direct Investment (FDI), the outlook remains positive due to unprecedented reforms carried out by the government through restructuring, improvement in regulatory environment and introduction of incentives and relief packages. The expected increase in infrastructure projects under China Pakistan Economic Corridor (CPEC) and increased allocation for infrastructure spending due to positive macroeconomic conditions in the future.

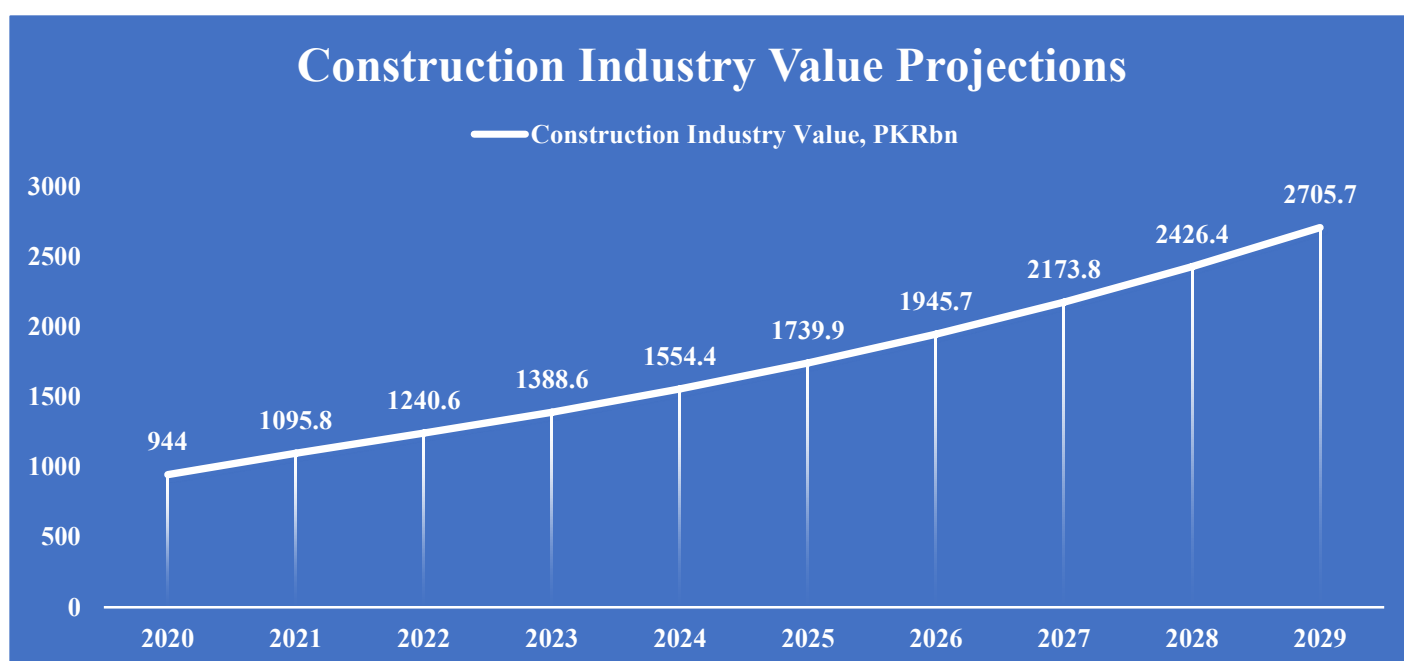


Figure 5 - Growth Projection (Source: Fitch Solutions)

### 3. Sub Sectors

#### 3.1- Buildings/Housing

The country's annual demand of housing is estimated to be about 700,000 units, while only about half of this demand is currently being met.

On the whole, the housing deficit is estimated at ten million units, which is growing every year.

Summary of 6 <sup>th</sup> Housing and Population Census			
Administrative Unit	Households	Total Population	1998-2017 Average Annual Growth Rate (%)
Pakistan	32,205,111	207,774,520	2.4%
Khyber Pakhtunkhwa	3,845,168	30,523,371	2.89%
Punjab	17,103,835	110,012,443	2.13%
Sindh	8,585,610	47,886,051	2.41%
Balochistan	1,775,937	12,344,408	3.37%
Islamabad Capital Territory	336,182	2,006,572	4.91%
FATA	558,379	5,001,676	2.41

Table 1 - Number of Households vs Population in Pakistan (Source: PBS)

#### 3.2- Highways, Roads & Bridges

Pakistan ranks at **22<sup>nd</sup> position** worldwide for **263,775 Km** length of its road network (13,000 km of National Highways and Motorways, 93,000 km of provincial highways and rest are District and Rural Roads).

The country is likely to improve its ranking significantly with the construction of new economic and connectivity projects, especially under the China Pakistan Economic Corridor (CPEC), the Central Asia Regional Economic Cooperation (CAREC) Programme and continuous government programmes.

First ever National Transport Policy has been approved by the GoP in February 2019 and being implemented



**Figure 6 - CPEC Routes (Source: NHA)**

Road Infrastructure of Pakistan (Kms)						
Years	Punjab	Sindh	KPK	Balochistan	GB and AJK	Aggregate
FY19	110,518	83,536	44,063	30,362	1,627	270,971
FY18	109,687	82,908	43,732	30,134	1,614	268,935
FY17	108,899	82,312	43,418	29,918	1,603	267,002
FY16	108,451	81,974	43,239	29,795	1,596	265,905
FY15	107,992	81,543	43,072	29,742	1,593	263,943
FY14	107,973	81,493	43,099	29,692	1,592	263,785

**Figure 7 - Road Infrastructure of Pakistan (Source: PACRA, Pakistan Economic Survey 2018-19)**

<b>NHA Network</b>	<b>39 National Highways, Motorways, expressways and strategic roads</b>
<b>National Highway Authority Achievement</b>	NHA has successfully attracted private sector investment and has awarded/supported five projects of worth over Rs 90 billion in BOT/PPP model.
<b>Length of Network</b>	12,743 Kms
<b>Existing Development Portfolio</b>	40 ongoing projects
<b>Cost of On-Going Projects</b>	PKR 117.8bn (Foreign Exchange Component - PKR 59bn) (Local component - PKR 60.9bn)
<b>CPEC</b>	Currently there are PKR 700 bln worth projects related to NHA

Figure 8 - NHA (source: Pacra, Pakistan Economic Survey, 2018-19)

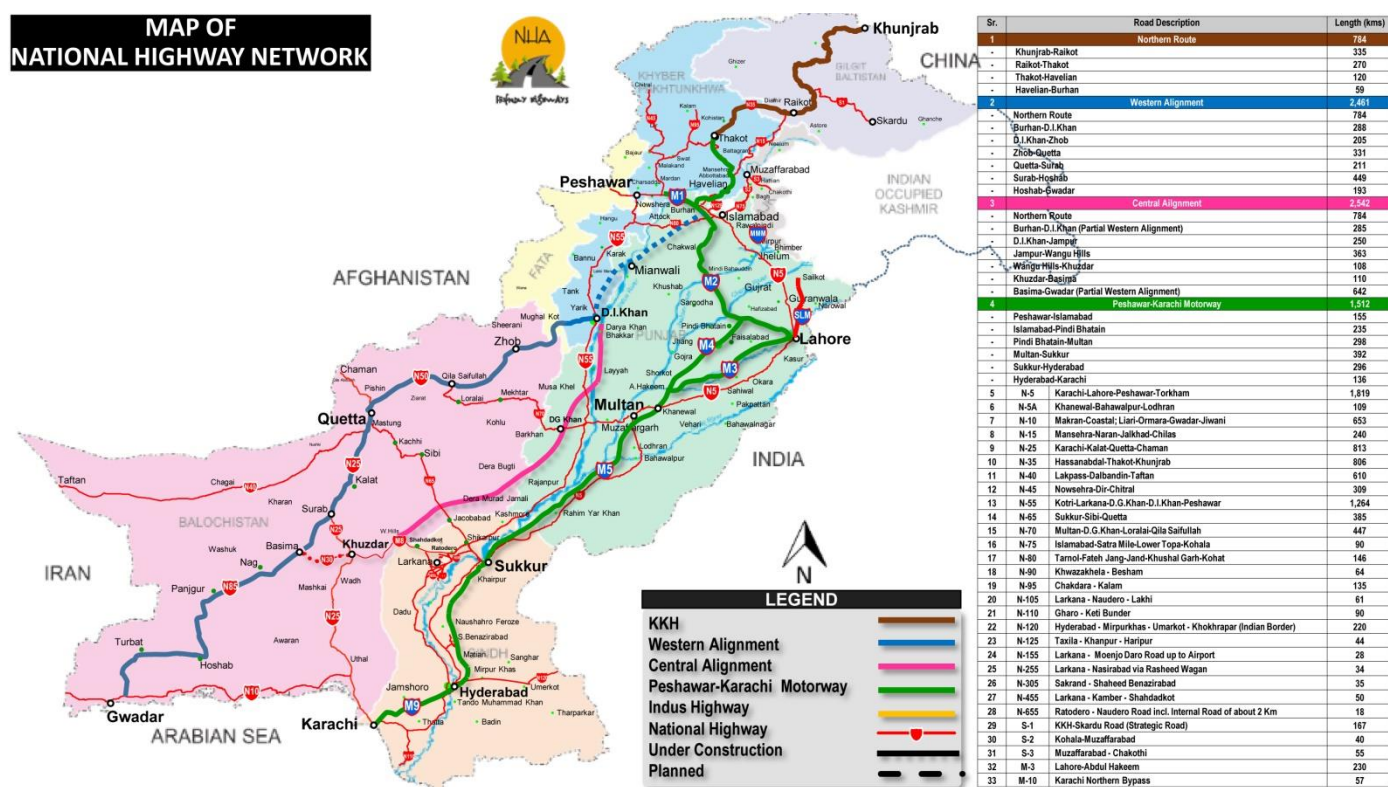


Figure 9 - National Highway Network of Pakistan (Source : NHA)



### 3.3- Airports

**Blue: International Airport**

**Green: Domestic Airport**

**Red: Aerodrome**

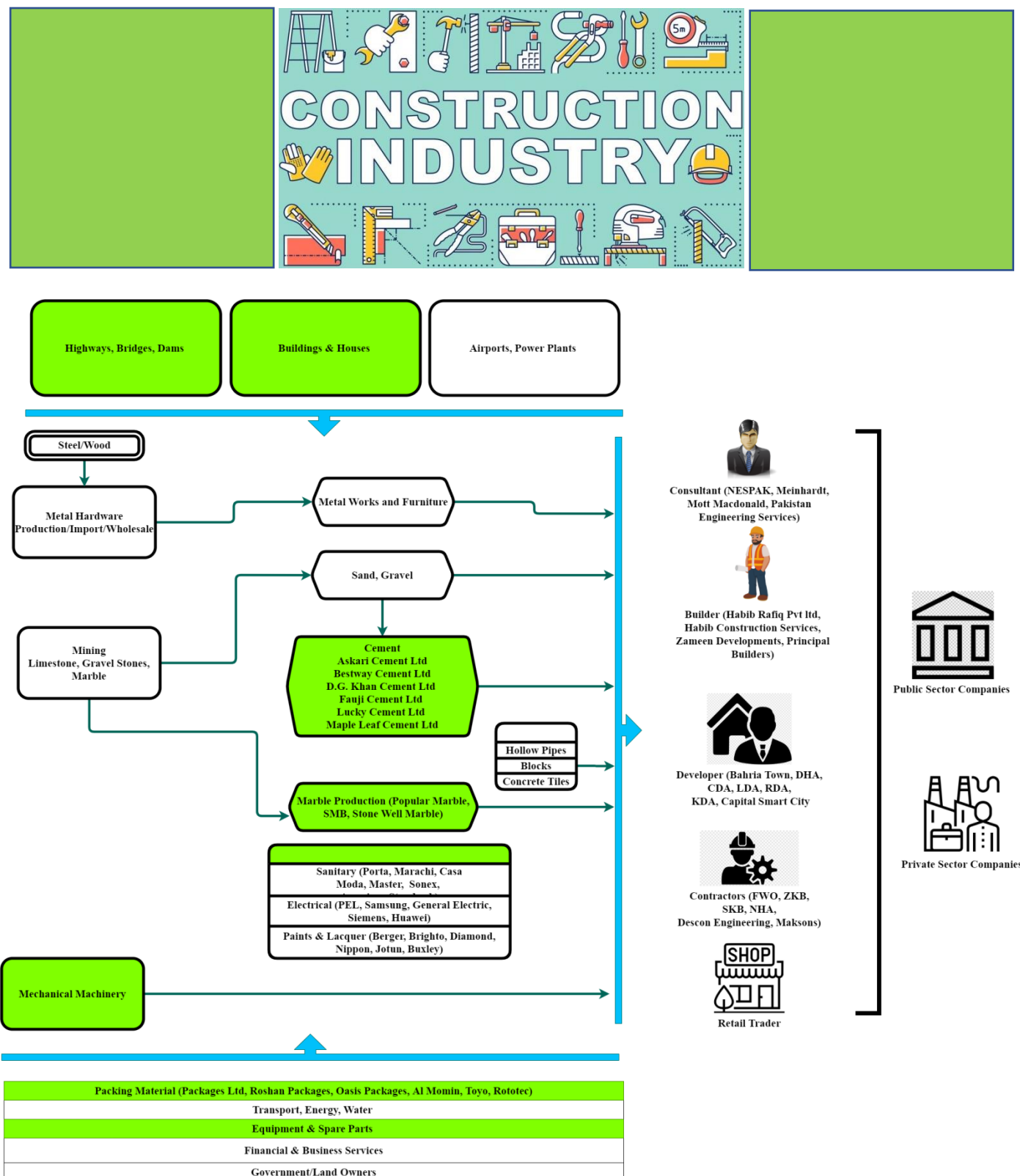
**Yellow: Partial**



Figure 10 - Airports of Pakistan

#### 4. Value Chain Analysis of Construction and Housing Sector

Potential Areas of Investment and Major Players and Investors are highlighted in the below chart. The Construction industry in this document is outlined as per the guidelines in the Tax Ordinance 2020. Below





## 5. Allied Industry (Potential Areas to Invest)

### 5.1- Cement:

- Pakistan's north region has an installed cement capacity of 53,722,500 tpa.<sup>1</sup>
- Pakistan's south region has an installed cement capacity of 16,834,600 tpa.
- During FY20, production capacity expanded to 63.6 million tpa.
- Pakistan exported 5.94 mega tonnes in FY20.
- Prominent firms include DG Khan Cement, Lucky Cement, Fauji Cement, and Bestway Cement.



### 5.2- Steel:

- CPEC and infrastructure projects have increased the demand for steel.
- Pakistan is 28th in steel production as stated in a Pakistan Business Council Report.
- According to the Pakistan Business Council, steel consumption is growing at a rate of 19% between the years 2013-2018.



### 5.3- Mechanical machinery/Automobiles:

- According to the 2020 tax ordinance of the Finance Act 1989, importing of equipment for construction of purposes come under the same bracket as construction of any structure.
- Machinery includes:
  - Asphalt plant
  - Excavator
  - PTRs
  - Bitumen Distributor
  - Loader
  - Pavers

<sup>1</sup> Pacra March 2020 Cement Industry report, APCMA

- Tractors
- Cement Rollers
- Tandem Roller
- Tower Cranes
- Gantry crane
- Milling Machine
- Transit mixer
- Power Cruiser
- Straddle Carrier



## 6. Major Players in the Construction Sector

<b>Developers of Pakistan</b>	Bahria Town, DHA, CDA, LDA, RDA, KDA, Capital Smart City
<b>Builders of Pakistan</b>	Habib Rafiq Pvt Ltd, Habib Construction Services, Zameen Developments Principal Builders
<b>Consultants of Pakistan</b>	NESPAK, Meinhardt, Mott Macdonald, Pakistan Engineering Services
<b>Contractors of Pakistan</b>	FWO, ZKB, SKB, NHA, Descon Engineering, Maksons
<b>Associations</b>	Association of Builder and Developers (ABAD), Islamabad Estate Agents Association, Federation of Realtors, Real Estate Business Club, Constructors Association of Pakistan



BAHRIA TOWN



Like the rest of the world, the construction sector is split between large scale players engaged in heavy construction and a large number of specialised trades such as mechanical, electrical, and plumbing that act as subcontractors or work on small projects.



**FWO**



## **7. Incentives offered by the Government**

### **Construction Sector Granted Status of Industry**

The Income Tax Ordinance has been amended to declare construction sector as an industrial undertaking, making it eligible for benefits and concession available to other industries.

### **New Fixed Tax Regime from Tax Year 2020 and Onwards for Eligible Builders and Developers**

An optional 'Fixed tax regime' from tax year 2020 and onwards for eligible builders and developers has been introduced on the income, derived from the sale of buildings or sale of plots, from a new or an incomplete existing project. Prior to this, tax was levied on a net income basis. Rate and computation of liability is determined under rule 10 of the eleventh schedule

### **Exemption of Withholding Tax on Purchase of Building Materials**

Eligible Developers and Builders shall be exempted from withholding taxes on purchase of building materials. Dividend income paid to a person by a builder or Developer Company out of the profits and gains derived from a project shall be exempt from tax and also from tax withholding obligations.

### **Reduced Advance Tax on Auction Sale**

Reduced rate of advance tax of 5% has been introduced for sale of immovable property through auction

### **Reduction in Tax Liability for Low Cost Housing**

Any tax payable on the income, profits and gains of projects of low cost housing under NAYA Pakistan Housing & Development Authority or EHSAAS programme shall be reduced by 90%.

### **Exemption of Capital Gains Tax**

Capital gains received by an individual on the sale of residential property (personal/family) house or flat, have been exempted from income tax.

### **Banks to increase credit for financing the housing & construction sector**

With a view to promote housing and construction of buildings (Residential and Non-Residential) in Pakistan, State Bank of Pakistan (SBP) has decided to advise mandatory targets to the banks. Accordingly, each bank shall ensure that the financing for housing and construction of buildings (Residential and Non-Residential) shall be at least 5% of their domestic private sector credit by December, 2021.

## 8. Reforms carried out

- Building laws in Pakistan are localised with metropolitan authorities dealing with construction matters.
- Reforms are mostly carried out by provincial governments as construction laws are localised.
- In the past two years, Lahore and Karachi have undertaken reforms aimed at improving the Ease of Doing Business.

Ease of Doing Business Reforms	
Construction Permit Reforms	
Reforms Carried out by Karachi	Reforms Carried out by Lahore
Removal of requirements for construction permits: <ul style="list-style-type: none"> <li>• NOC form from Environmental Protection Agency</li> <li>• Property tax valuation and certificate and Excise and Taxation Inspection body</li> </ul>	Creation of an integrated one window system including counters of Traffic Engineering and Transport Planning Agency (TEPA) and Water and Sanitation Agency (WASA) at the Lahore Development Authority.
Reduction of approval time from 260 days to 92 days.	Created integrated public facilitation counters.
Procedures down from 18 to 15.	Increased transparency through online availability of the following: <ul style="list-style-type: none"> <li>• Permit issuance statistics</li> <li>• Procedures, fees, and binding timelines on LDA website.</li> <li>• Requirement checklists and required forms for all major types of projects.</li> </ul>
Cost has been reduced from Rs. 695175 to Rs. 448000.	Elimination of: <ul style="list-style-type: none"> <li>• Requirement of requesting assessment copy of property unit</li> <li>• Tax and Excise department inspection</li> <li>• Inspection from WASA.</li> </ul>
	Reduction in approval time from 266 days to 70 days.
	Procedures down to 8 from 20.
	Cost reduced to Rs. 170,650 from Rs. 311,150.
Reforms Pertaining to Property Registration	
Reforms Carried out by Karachi	Reforms Carried out by Lahore
Elimination of Advertisement in newspaper for insisting objection	Documents all available online.
Checklist of required documents is available online.	Creation of a standard template for sale and purchase of property.
Creation of systems for title searches and deed creation.	Removal of PT-1 form.
Approval time has gone down from 208 days to 17 days.	Computerisation of sub-registrar office
Procedures have gone down from 8 to 6.	Launching of E-stamping by Bank of Punjab and eliminated need for multiple visits to pay stamp duty.
	Online availability of land records
	Approval time reduced from 26 to 11.
	Procedures down from 6 to 4.

## 9. Opportunities

### 9.1- Access to Finance (Low Cost Housing):

- State Bank of Pakistan (SBP) has mandated to banks to increase housing and construction financing to at least 5% of private sector credit by December 2021.<sup>2</sup>
- Prior to this, building construction finance constituted around 1.5% of loans to private sector business.<sup>3</sup>
- With the 5% rule, around Rs.235 billion can be expected to be set aside for construction out of the Rs. 6,259 billion total private sector credit.<sup>4</sup>
- Real Estate Investment Trusts (REIT) have recently started to gain some sort of prominence. The Security Exchange Commission of Pakistan has started to prioritise the development of REITS. In 2015, it issued the REIT regulations which regulate the investment vehicle.
- REITs help provide builders and developers with building finance as they provide an alternative to equity injections and debt. This is because it isn't dependent on informal investors who provide instalments and down payments and doesn't take land as collateral. REITs don't have the same bureaucratic procedures.
- State Bank of Pakistan has provided some incentives for low cost housing finance in their Policy for Low Cost Housing Finance.<sup>5</sup>
  - These are mostly made up of regulatory relaxations for banks and Developer Finance Institutions.
  - The general reserve requirement has been withdrawn for low cost housing. Previously it was 0.5-15%.
  - Loan to Value (LTV) ratio has been revised for low cost housing. The existing ratio was 85:15. Now it is 90:10. This means more riskier and larger loans can be given out for mortgages.
  - Low cost housing will not be included in real estate exposure limits. Prior to the regulatory change, low cost housing was included in the 10% exposure limit banks had to comply with in their investments and advances in real estate.
  - Low cost housing has been given a lower risk weight from 35% to 25%.
  - Banks/DFIs' borrowing from Pakistan Mortgage Refinance Company to exempted from capital requirements regulation (CRR) and statutory liquidity ratio (SLR).
  - The maximum size of housing microfinance has been increased from Rs. 500 thousand to Rs. 1 million.

<sup>2</sup> <http://www.sbp.org.pk/press/2020/Pr-15-Jul-20.pdf>

<sup>3</sup> Karandaz Builder Finance Report

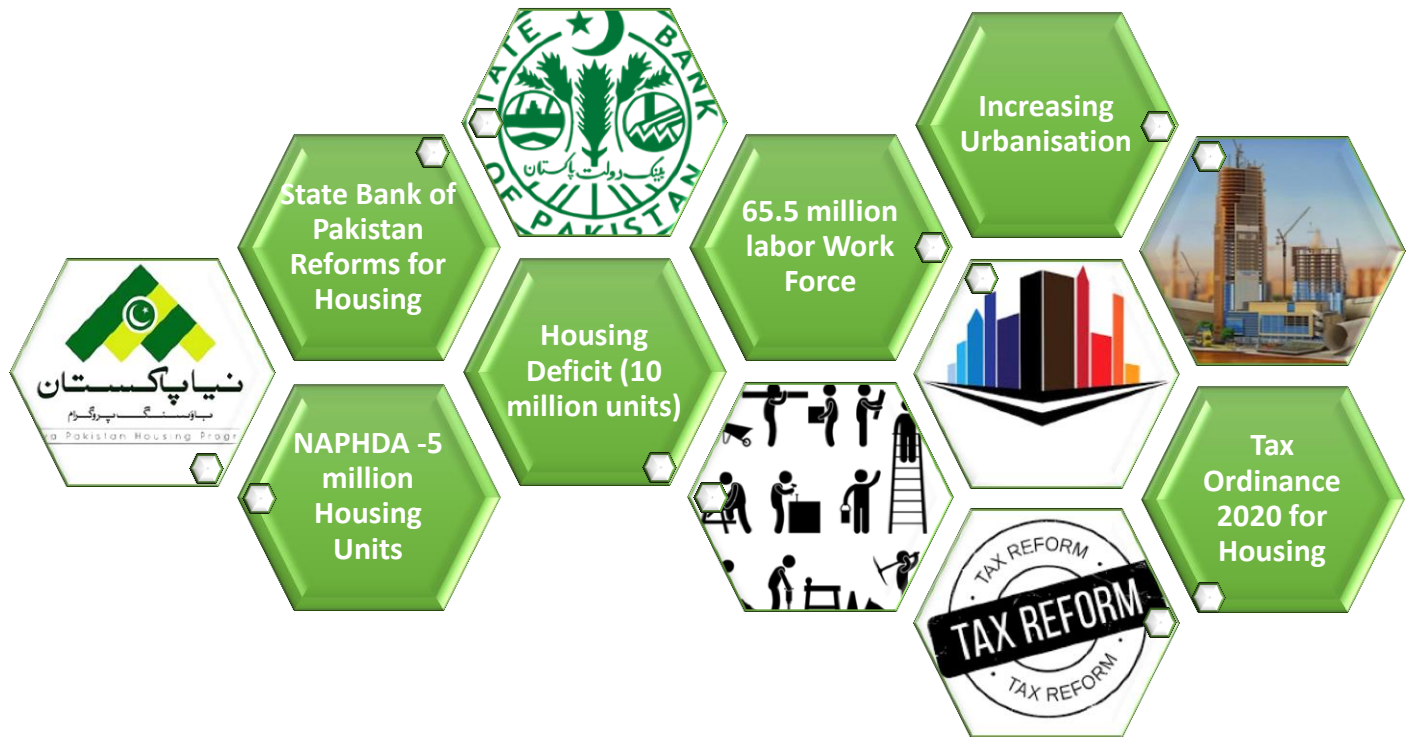
<sup>4</sup> Karandaz Builder Finance Report

<sup>5</sup> <https://invest.gov.pk/sites/default/files/inline-files/PolicyLowCostHousingFin.pdf>



- The regulatory cap of housing microfinance loans not being able to provide more than 40% of their loans in sums larger than 250,000 has been removed.

## 9.2- Key Highlights:





## 10. Reasons to Invest

1. Pakistan's construction sector provides up to 380 billion PKR in GDP.
2. According to the Association of Builders and Developers, pending cases pertaining to construction and housing add up to Rs. 1.1 trillion in monetary value.
3. Housing finance only makes up 0.5% of GDP. In India, it makes up 10% of the GDP. With current reforms, financing can increase and make up a larger part of the GDP.
4. Construction industry value according to Fitch Solutions was at Rs. 803.4 billion in 2019.
5. Fitch Solution projects an industry value of Rs. 2705.5 billion by 2028 representing the potential of the housing and construction industry.
6. The industry according to market line had revenues of \$26.7 billion in the year of 2018. The compound annual growth rate between 2014 and 2018 was 12.3%. In comparison, Indonesia and China grew with growth rates of 10.8% and 3.5%.
7. Pakistan's overall infrastructure ranking according to the global economic forum global competitiveness report improved from 119 to 92 between 2013/14 and 2017/18.
8. Construction sector has been declared an industry. With this brings tax relief to firms in the industry through the amendments to the tax ordinance. Reforms to tax policies provide numerous incentives to builders and developers as well as contractors. These include lower tax rates and the removal of numerous taxes previously hampering the ease of doing business in the sector.

## **11.Areas to invest**

### **11.1- CPEC Programme**

- In 2018, it was announced that China and Pakistan were looking for 3<sup>rd</sup> party investors for infrastructure projects.
- The CPEC agenda is governed by the CPEC Authority which comes under the Ministry of Planning and Development.
- The Ministry of Communications oversees infrastructure projects. <sup>6</sup>
- The Ministry of Energy coordinates energy projects. Private Power and Infrastructure Board (PIBB) and the Punjab/Sindh/Balochistan/KPK Power Development Board supervise the projects.<sup>7</sup>

### **11.2- PSDP - Public Private Partnerships**

- Federal and provincial governments have their own public private partnership authorities which carry out PSDP projects.
- PSDP funds are allocated between ministries and governmental organisations such as the National Highway Authority (NHA).
- Infrastructure projects are given to private sector contractors and engineering consultants under PPRA rules.
- PSDP is set by the Ministry of Planning and Development.

### **11.3- Private sector Infrastructure/Construction Projects**

- Pakistan is increasingly urbanising with increasing demand for various types of buildings.
- A housing deficit presents the opportunity for developers to launch housing schemes catered to all income groups.
- Various cultural traditions and practices also bring the need for more buildings. Shopping for clothes and groceries is an errand everyone is involved in. Shopping malls with hypermarkets where people can do their weekly shopping is in high demand across the entire country. Malls such as Packages, Centaurs, Dolmen all traditionally see high numbers of customers annually.

<sup>6</sup> <http://cpec.gov.pk/project-details/28>

<sup>7</sup> <http://cpec.gov.pk/project-details/2>

### Success Stories of Mega Malls in Pakistan



**The Centaurus**  
**Cost: USD 350 million**



**Emporium Mall**  
**Cost: USD 150 million**



**Dolmen Malls**  
**Chain of Shopping Malls**  
**Approximately USD 264.77 million**



**Packages Mall**  
**Cost PKR USD 19.8 million**

#### 11.4- NAPHDA (5 million affordable housing project)

NAPHDA seeks to develop quality housing at affordable price for low to medium income groups in urban, peri-urban and rural areas. Clusters of housing complexes will be created in a progressive manner, all over the Country. These housing colonies will have a mix of housing units for various income groups and will foster social cohesion.

The planned breakdown of estimated volume, based on preliminary survey / planning, is as under:

- ✓ Urban Centres (2 Million Housing units) - 40%
- ✓ Peri-Urban Areas (1 Million Housing units) - 20%
- ✓ Rural Areas (2 Million Housing units) - 40%
- ✓ Total: 5 Million Housing units

#### Salient Features

- The business concept is based on PPP model.
- Urban and peri urban areas will have cross subsidies for low income housing.
- **Projects on government land:**
  - 70% of land will be utilised for low cost housing. 30% for medium end housing and commercial units.
  - Builders will provide 30% equity, beneficiaries will provide 10% equity, remaining 60% will be provided through bank financing.
  - NAPHDA provides the following incentives:
    - Facilitation in approvals and NOCs.
    - Coordination with devolved governments on trunk infrastructure.
    - Arrange mortgages for low income groups.
    - 90% tax rebate on low cost housing.

- Developers will develop land and infrastructure through its own cash or equity.
- Developers will construct houses by arranging developer finance through banks.
- Banks will use the Rs. 300-thousand-unit subsidy and provide credit facilities to developers.
- This will only be provided for house building.
- **Projects on Private Land:**
  - Minimum 40% of land must be used for low cost housing with 20% for NAPHDA applicants.
  - NAPHDA will provide buyers and the mortgage facility for low income groups.
  - There will be a 90% tax rebate.
  - NAPHDA will facilitate NOCs and approvals

**Initiated Projects:**

- Punjab Housing and Town Planning Agency (PHATA) has started launched projects in 6 areas under two planned phases.
- Phase I consists of Lodhran, Chistian, and Renala Khurd.
- Phase II consists of Bhakkar, Layyah, Quidabad.

## **12. Market Gaps**

### **12.1- Construction technology**

Pakistani construction firms which are technologically advanced import software helping them carry out their service. International firms can take advantage of the recent modernisation trends seen in industry by investing in Pakistan and utilising its high growth prospects.

#### **12.1.1- Building Information Modelling (BIM)**

- ✓ BIM has become a trend among firms involved in construction.
- ✓ BIM in Pakistan is slowly gaining traction. However, it is still in its introduction stage of the product life cycle. Firms only use it to draw out structures.

#### **12.1.2- 3D Printing**

- ✓ 3D printing can also be used for material sourcing. Prefabricated materials can be printed and then transported onsite.
- ✓ 3D printing is largely used in the defence industry and is yet to take off in the commercial and industrial use context. The government recently lifted restrictions on the import of 3d printers and scanners.

#### **12.1.3- Artificial Intelligence (AI)**

- ✓ Worldwide, the construction industry is witnessing the implementation of artificial intelligence with the use of robots for tasks like bricklaying and autonomous equipment that can complete tasks without the need for human interaction. AI can identify when information is missing and ask questions as well as use the data it collects.

### **12.2- Engineering Consultancy**

- ✓ Pakistan has a very local engineering consultancy setup.
- ✓ Very few international firms are involved in the practice. The only prominent international companies are Mott Macdonald and Meinhardt.
- ✓ With a large number of housing and infrastructure projects, there is potential for more entrants to come into the housing and construction sector due to the relative ease of entry into the market.
- ✓ With more CPEC projects around the corner and an ever expanding PSDP programme, the demand for global engineering design firms will increase in Pakistan.



## 13. Challenges in the industry

### 13.1- Informal Nature of Industry

- The builder and developer segment in particular small to medium enterprises, has remained informal due to inefficient land administration and grey money parked in the sector.<sup>8</sup>
- Until the recent tax ordinance amendments, the taxation system of the sector was quite stringent in collecting dues from firms due to complications and vague guidelines.

### 13.2- Financial aspect of Housing and Construction Constraints<sup>9</sup>

- a. Builders use equity in the form of land and customer advances to finance construction.
- b. If the builder doesn't have enough capital to buy land, the land is bought in instalments either over the span of construction or the whole developed land is transferred to the seller. These transactions are usually informal.
- c. SME builders who have defaulted on loans attained from House Building Finance Company (HBFC) were mostly incapable to sell the house they built. Sales are the primary way builders pay back the loans. Due to defaults, HBFC is less willing to issue loans to builders.
- d. Builders from the SME segment do not have their documentation and paperwork in order. Record keeping of financials is limited due to cost of maintaining auditing of financial accounts and cash flow management is high.
- e. Many builders don't have an asset bank to use for collateral, other than the property being developed. Banks usually do not accept the same property as security and often times the title of these properties are at times dubious. This restricts builders from receiving funds for their projects.

### 13.3- Small International Presence in Industry

- a. There's a clear dearth of international firms in the industry.
- b. In real estate there are a few UAE based companies investing in high end housing such as Emaar.
- c. Lack of international players reduces competition in the industry.
- d. This has created an environment of crude market dynamics with local firms having no incentive to innovate their services.
- e. Firms abroad enjoy greater economies of scale and revenues due to improved productivity through investing in innovation and technology.
- f. Many current large-scale infrastructure projects in Pakistan which are proving to be difficult to be carried out can be contracted to foreign firms who can deliver on time while ensuring quality.

<sup>8</sup> Enhancing builder finance Karandaaz report

<sup>9</sup> Enhancing builder finance Karandaaz report

## **14. Key Information**

### **14.1- Standards of Procedure**

- Construction permits are localised city wise.
- Building codes can be found at [https://www.pec.org.pk/building\\_code\\_pakistan.aspx](https://www.pec.org.pk/building_code_pakistan.aspx)
- Procedure for bidding can be found at [https://www.pec.org.pk/procedure\\_guide\\_bid\\_docs.aspx](https://www.pec.org.pk/procedure_guide_bid_docs.aspx)
- Bidding documents can be found at [https://www.pec.org.pk/pec\\_bid\\_docs.aspx](https://www.pec.org.pk/pec_bid_docs.aspx)

## 15. Bibliography

1. Pakistan Economic Survey, 2019-20
2. Pakistan Bureau of Statistics, Pakistan Population Census, 2017
3. [http://www.na.gov.pk/uploads/documents/1591789270\\_691.pdf](http://www.na.gov.pk/uploads/documents/1591789270_691.pdf) , Ordinance No-1 of 2020
4. Tax Laws (Amendment) Ordinance, 2020, Highlights & Comments, Deloitte
5. Note on Tax Laws (Amendment) Ordinance, 2020, A. F. Ferguson & Co.
6. Fitch Solutions Infrastructure Report Pakistan 2020
7. EODB Reforms, World Bank Report
8. Enhancing Builder Finance- Karandaaz
9. MGI Reinventing Construction : A Route to Higher Productivity
10. <https://www.zameen.com/blog/register-construction-company-pakistan.html>
11. Pakistan Economic Survey
12. Investment in Pakistan-KPMG
13. State Bank Statistical Summary
14. Planning Commission Annual Plan
15. State Bank of Pakistan Policy for Low Cost Housing
16. PSDP Annual Plan 2020-2021
17. PSDP Annual Plan 2019-2020
18. PSDP Annual Plan 2018-2019
19. PSDP Annual Plan 2017-2018
20. PSDP Annual Plan 2016-2017
21. PSDP Annual Plan 2015-2016



06th Floor, Kohsar Block, Pak Secretariat, Islamabad 44000, Pakistan  
+92 51 922 4101 , +92 51 921 5554  
[investpak@invest.gov.pk](mailto:investpak@invest.gov.pk)

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