PUNJAB ECONOMIC REPORT
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48-Civic Center, Johar Town, Lahore.
Punjab faces the twin challenges of increasing the size of the economy while at the same time advancing the wellbeing of citizens through inclusive, balanced, and sustainable development and protecting the disadvantageous. The Government of Punjab (GoPb) has been a trailblazer in implementing economic reforms and pro-poor growth strategy. Guided by the Punjab Growth Strategy (PGS) 2018, the Government envisions the province as a secure, economically vibrant, industrialized and knowledge-based province where every citizen leads a fulfilling life.

The GoPb is eager to achieve its targeted Sustainable Development Goals (SDGs) and is utilizing the finite public expenditures accordingly with an increased focus on social sectors and Southern Punjab. Punjab is eager to capitalize on the opportunities provided by China Pakistan Economic Corridor (CPEC), which requires targeted coordination and consultation with the Federal Government and other Provincial Governments.

Punjab Economic Report (PER) 2017 is an important exercise carried out for an evidence-based analysis of the opportunities and challenges for the province in achieving its growth objectives. The report provides a broad overview of the main sectors of the economy with a focus on the post 18th Amendment and 7th NFC scenario. The current report covers growth sectors (Agriculture, Industry, Services), social sectors (Health, Education, WASH), investment priorities (Infrastructure, Urban Development, Energy), and emerging opportunities and challenges (CPEC, Financial Management and Governance).

PER 2017 has been published after a decade long hiatus. It has been made possible through the collective efforts of individuals across various departments. I hope that this report will prove to be an excellent resource and will act as a platform for future research. I would like to thank Dr. Hafiz A. Pasha, Dr. Ijaz Nabi, and Team Lead Usman Khan for their untiring effort.

Habib-ur-Rehman Gilani
In the coming years, Pakistan has an aim of achieving high economic growth and providing jobs to a growing young population. To ensure that the country experiences sustained growth and improvements in the standard of living of the society, the government has to work hand in hand with the private sector to improve resource mobilization and service delivery.

The government has emphasized the need to improve the social sector mainly due to its commitment towards achieving the Sustainable Development Goals and the government has taken various initiatives in this regard along with its major infrastructure projects. I am sure, with concerted efforts and sound policy frameworks, we can achieve high economic growth and sustained development for a better and prosperous future.

The Punjab Economic Report 2017 is a comprehensive document which presents an overview of the major sectors and provides in-depth analysis of Punjab’s economic performance in the last decade. It highlights the fact that the government of Punjab has worked diligently to ensure the well-being of its citizens and growth of the provincial economy.

I congratulate the Punjab Economic Research Institute for their achievement in producing the Punjab Economic Report. I would also like to extend my appreciation to all the relevant departments and individuals for their significant involvement and support throughout the whole process.
Punjab has been growing rapidly both in terms of size of economy and population, parallel to a surge in the demand of populace for resources, basic facilities and a better chance at improved living standard. Catering to the needs of its people, the Government of Punjab has undertaken numerous interventions and reforms for the development of a knowledge-based, progressive and infrastructural sound province.

As a result of these interventions, Punjab has performed visibly well in the past few years, with an upward trajectory on major economic indicators along with a strong contribution to the national economy in terms of agricultural, services and industrial productivity. However, with changing dynamics of the province, especially in context of 18th Amendment, it has become indispensable to shift focus towards more informed and evidence-based processes and decision making. For this to happen, the involvement of all stakeholders and quality inputs from our attached bodies is vital to address the complexity of tasks effectively.

The Punjab Economic Research Institute is the premium research institute of the Punjab Government which has continually been producing quality research in multiple avenues requiring strong focus of the Government such as CPEC, SDGs, poverty alleviation, water scarcity and social sector issues. The Punjab Economic Report 2017, is a fine example of a research initiative which proves the interest of the institute in the planning, monitoring and evaluating process of the government. The report is a remarkable effort to analyze the progress made and understand what needs to be done in the future to sustain the economic growth of the province. The in-depth analysis documented in the report goes to suggest the importance of research in the process of evidence-based decision making, and thus, we at PERI aim to strengthen our capacity in order to enhance the quality of our outputs further, for better planning and implementation.

I am certain that with collaborative efforts, sound policy frameworks and continuous evaluation of our performance, we can climb the ladder of economic growth and sustained development for a better and prosperous future of Punjab, and indeed Pakistan.

Dr. M. Aman Ullah
Cognizant of the importance of its role in the national economy of Pakistan, Punjab faces many challenges in the years to come. The higher population of Pakistan implies that it is now an even more ‘water stressed’ country. The danger of the forest area of the country being depleted at an even faster rate is also an area of concern. The expansion of urban areas could also reduce the availability of land for cultivation of crops at the periphery of cities, especially in Punjab.

The first and foremost challenge for the government stays as the need to increase the number of jobs for the country’s youth, and absorb the innumerable graduates in its workforce, by addressing the mismatch between the skills needed in the job market and the skills that these graduates have been equipped with. It is also the need of the time for the Government to improve the business environment to attract both local and foreign investment and assess the effectiveness of its investment on human development indicators in the country, building on strengths and overcoming the vulnerabilities in the economy to ensure sustainable growth in the country.

Although Government of the Punjab has done a commendable job in improving the growth rate of the province from previous years by effectively easing the energy crisis that had plagued the country, there is still a long journey ahead to effectively tap into potential of the Province that can be employed further.

The PER 2017 is a comprehensive document which presents insights in multiple sectors of the economy and highlights the areas where the government has performed well and where more attention and effort is needed. The importance of this report stems from the applicability of the approach to identify and analyse the various issues being faced by the province. I commend the authors of this report for picking up the core issues faced by the Province in the past ten years and presenting the data in a coherent way. It’s a crucial effort that should be maintained and improved over time. I hope that it proves to be an invaluable resource for research in the country.

PEER REVIEWER MESSAGE

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DR. HAFIZ A. PASHA
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DAIs  Degree Awarding Institutes
DAP  Diammonium Phosphate
DCOs  District Coordination Officer
DCs  Deputy Commissioners
DEAs  District Education Authorities
DFID  Department for International Development
DFR  Departmental Financial Rules
DG  Director General
DGHS  Director General Health Services
DHAs  District Health Authorities
DHIS  District Health Information System
DHQ  District Head Quarter
DISCOS  Distribution Companies
DMU  Debt Management Unit
DoPP  Directorate of Power Projects
DOTS  Directly Observed Treatment, Short-course
DPI  Directorate of Public Instruction
DRF  Digital Rights Foundation
DRTAs  District Regional Transport Authorities
DTLs  Drug Testing Labs
E&T  Excise & Taxation
ECE  Early Childhood Education
EE&C  Energy Efficiency and Conservation
EIA  Environmental Impact Assessment
EPI  Expanded Program for Immunization
EVS  Education Voucher Scheme
FAO  Food and Agriculture Organization
FAS  Foundation Assisted Schools
FBR  Federal Board of Revenue
FC  Factor Cost
FCMG  Fast Moving Consumer Goods
FD  Finance Department
FDI  Foreign Direct Investment
FED  Federal Excise Duty
FEs  Forward Estimates
FESCO  Faisalabad Electric Supply Company
FIEDMC  Faisalabad Industrial Estates Development and Management Company
FTA  Free Trade Agreement
FTF  Farog-e-Taleem Fund
FWO  Frontier Works Organisation
FY  Fiscal Year
GATS  General Agreement on Trade in Services
GDP  Gross Domestic Product
GEPCO  Gujranwala Electric Power Company
GER  Gross Enrolment Rate
GFC  Global Financial Crisis
GIR  Gross Intake Rate
GIS  Geographic information system
GIZ  Deutsche Gesellschaft für Internationale Zusammenarbeit (German Development Agency)
GoPb  Government of Punjab
GPI  Gender Parity Index
GPP  Gross Provincial Product
GSP  Generalized System of Preferences
GST  General Sales Tax
GVA  Gross Value Added
GVO  Gross Value of Output
HBL  Habib Bank Limited
HEC  Higher Education Commission
HED  Higher Education Department
HHWBI  Household Well Being index
HIES  Household Integrated Economic Survey
HIV  Human Immunodeficiency Virus
HMIS  Hospital Management Information System
HPP  Large Hydro Projects
HR  Human Resource
HUD&PHE  Housing Urban Development & Public Health Engineering Department
ICD  Inland Container Depots
ICRU  Investment Climate Reform Unit
ICT  Information Communication Technology
IEs  Industrial Estates
IESCO  Islamabad Electric Supply Company
IFAD  International Fund for Agricultural Development
IGC  International Growth Center
IMF  International Monetary Fund
IMR  Infant Mortality Rate
IPCC  Intergovernmental Panel on Climate Change
IPD  Inverse Population Density
IPP  Independent Power Producer
IRAP  Industrial Regulation Authority Punjab
IRMNCH  Integrated Reproductive Maternal, Newborn and Child Health
IRSP  Integrated Regional Support Program
ISIC  International Standard Industrial Classification
ISO  International Standards Organization
IT  Information Technology
ITU  Information Technology University
J&C  Jobs & Competitiveness
JICA  Japan International Cooperation Agency
KIBOR  Karachi Inter Bank Offer Rate
KPK  Khyber Pakhtunkhwa
KV  kilowatts
LDA  Lahore Development Authority
LDs  Local Departments
LEAPS  Learning and Educational Achievement in Punjab Schools
LESCO  Lahore Power Distribution Company
LFS  Labor Force Survey
LG&CD  Local Government & Community Development
LGCC  Local Government & Community Development
LGUs  Local Government Units
LHSs  Lady Health Supervisors
LHVs  Lady Health Visitors
LHW  Lady Health Worker
LOI  Letter of Intent
LRMIS  Land Records Management Information System
LSM  Large Scale Manufacturing
LTE  Long-Term Evolution
LUMS  Lahore University of Management Sciences
LWMC  Lahore Waste Management Company
M&E  Monitoring and Evaluation
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<td>Maternal and Child Health and Nutrition</td>
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Executive Summary

Introduction

The population of Punjab has been growing rapidly. It was estimated at about 22 million in 1947. According to the 1981 census, Punjab had a population of 47 million. Currently, it stands just above 110 million. Based on projections by the Pakistan Bureau of Statistics, by 2025 the population of Punjab will increase beyond 125 million. Thus, between 1981 and 2025, Punjab’s population is set to nearly triple. To put this in international perspective — in 2025 the projected population of the Punjab will almost equal the combined populations of the United Kingdom and France.

A necessary condition for improved well-being and a better life is, a higher income through gainful employment. This means that the economy of Punjab will have to create enough jobs for this rapidly growing population, more precisely, for the millions entering its labour force annually. The private sector generates around 90 percent of Punjab’s output of goods and services, and is the dominant player in the economy. Thus, the Punjab Government in order to meet its goal of improved well-being of its citizens, is aiming to improve the economic environment and enhance the capabilities of the private sector. The government’s grow strategy (Punjab Growth Strategy 2018) provides a framework to achieve this objective. The strategy states that the public-sector investment programme of around US$ 5 billion is not sufficient to meet the needs of the rapidly growing population of Punjab. Also, a major responsibility of the government is to bring about policy and regulatory reforms that will facilitate the private-sector and enhance its contribution to the provincial economy.

What has to be understood at the outset is that there are certain limitations of a provincial policy or strategy. While many of the departments and ministries have been devolved to the provincial level, there are still some important policy instruments which remain under the control of the federal government. For example, interest rates and exchange rates, which are critical in terms of their impact on private sector growth, remain squarely in the domain of the federal government. Also, some fiscal and trade policy instruments such as income tax and trade taxes/tariffs are with the federal government. Thus, the role of provincial governments in such cases is that of coordination and advocacy with the relevant federal institutions.

The China Pakistan Economic Corridor (CPEC) is a potential vent for long term growth of the country and the Punjab province. The development of trade routes, energy corridors and associated businesses under CPEC are some of the low hanging fruits that will materialize if the provincial government has a clear and well-defined economic strategy in coordination with the federal government.

Moreover, the government is cognizant of the fact that a balanced and inclusive growth strategy, is required to attain social outcomes and goals which in the past have eluded the province. The current situation indicates that certain segments of the population and geographical areas in the province, especially the Southern regions, have historically been served less. Therefore, a conscious tilt in development expenditures, in favour of the more deprived regions is being made to reduce these imbalances. This approach is also extremely important for the province to achieve its Sustainable Development Goals (SDGs) targets.

Objectives

The Punjab Economic Report 2017, comes after a decade long hiatus – the last report was written in 2007. This particular report is, therefore, a comprehensive analysis of the provincial economy in the last decade covering the main sectors of the economy as well as the central socio-economic issues of the province. Ideally future reports should be published annually, and focus on issue based approach instead of an overarching analysis of the provincial economy such as the one done in this report. Therefore, this particular report, can serve as a useful baseline or reference point covering the important sectors and issues relevant to Punjab’s economy.

The Punjab Economic Report is meant to be read in conjunction with the Medium Term Development Frameworks (MTDFs) of the province, putting forward an analysis of the provincial economy over time and of the various plans and programs implemented under these frameworks. The current report therefore has been written primarily in context of the Punjab Growth Strategy Framework 2018 which is underpins by the current MTDF.

The purpose of this chapter is to contextualize the Punjab Economic Report 2017, under the guiding framework of the Punjab Growth Strategy 2018. The chapter also describes the current program, plans and allocations across sectors which are aligned with the Growth Strategy. This chapter also highlights an important theme which runs across the entire report – challenges and opportunities brought about by the China Pakistan Economic Corridor (CPEC). As the report analyzes in considerable detail the potential impact of CPEC on each of the three sectors of the provincial economy - industry, agriculture and services - some of the key aspects of the discussion have been summarized in this chapter. Finally, the chapter outlines the structure of the Punjab Economic Report 2017.


In the last ten years there have been three published strategy documents of the Punjab Government. The latest economic policy document is the Punjab Growth Strategy 2018, which was launched in 2014. The Punjab Economic Report has been written in the context of the current Growth Strategy. Each chapter of the Report clearly spells out the relevant objectives of the Strategy and lists the programs and budgetary allocations which have been made under the medium term development framework. The Report also identifies remaining gaps, issues and problems across sectors which need to be addressed in the future. On the basis of this analysis each chapter puts forward a set of policy recommendations for the provincial government.

It has to be noted that while the Growth Strategy is more focused and covers critical aspects of the Punjab economy, the Economic Report has a much wider scope with an in depth analysis of the relevant topics. The Report delves into areas not covered by the Strategy such as Services, Tourism, Energy, and Poverty etc. Also, the Report carries a detailed analysis and discussion of the performance of Punjab’s economy, its various sectors, programs and policies during the last decade. The purview of the Strategy on the other hand is limited and mainly lists a set of recommendations and strategic interventions aimed at increasing provincial growth and ensuring its sustainability. Therefore, the Report and the Strategy documents are meant to complement one another. The following is a brief summary of the Punjab Growth Strategy.

The Growth Strategy envisions Punjab as a secure, economically vibrant, industrialized and knowledge-based province, which is prosperous, and every citizen can expect to lead a fulfilling life. The strategy focuses on the private sector as the main driver of provincial economic growth. The governments, both provincial and federal, play the role of providing the right policy environment for private sector investment to flourish across different sectors of the economy. There is a strong emphasis in the strategy on sustainable and equitable growth given the intra provincial disparities, particularly between districts in southern Punjab and the rest of the province.

Growth Strategy Focus: Private Sector Development

Successful private sector development requires a variety of conditions, and best operates under a secure law and order situation, macroeconomic stability and balanced improvement in social sector outcomes. It requires the government to support areas and design intervention that impact firm level productivity and profitability.

Thus, based on these requirement, Punjab’s growth strategy supports policies to improve the image of Punjab as a secure place to do business, bring about key reforms to make factor markets more efficient, improve the social outcomes in a balanced manner, trigger larger and effective PPPs, address areas that constrain business growth and invest in smart infrastructure.

However, Punjab’s strategy is constrained in the sense, that even after constitutional devolution, Punjab is still not entirely the master of its own fate. The Constitution of Pakistan divides the key functions of government between the federal and provincial governments, and a number of key policy areas that critically impact growth in the provinces—such as exchange rate, monetary, and fiscal policies—nevertheless remain the responsibility of the
federal government.

The impediments to the rapid growth in size and productivity of Punjab’s private sector arise from issues of both “hardware” (i.e. physical requirements) and “software” (i.e. the working of institutions, questions of governance, policies, and cultural factors etc). The hardware issues are relatively easy to diagnose, for example, it is quite clear that for the immediate future the most pressing issue is energy. Several studies have estimated that energy shortage alone reduces GDP growth by 2 percent per annum. The software issues are difficult to analyse and resolve, because they often reflect deep-rooted influences of history, habits, and values. Yet addressing these issues is fundamental to achieving high growth targets.

The Punjab Growth Strategy identifies certain key challenges in achieving its vision of secure and sustainable economic growth. These challenges include: an underutilized manufacturing capacity and stagnant exports; low productivity of physical and human capital; unemployment, under-employment and skills shortages; failure to meet the Millennium Development Goals (MDGs) and slow progress towards the SDGs; and a precarious security situation. The Growth Strategy has put forward the following targets:

- Achieving 8 percent economic growth (real GRP growth rate) in Punjab by 2018
  - The actual growth has been modest and is expected to reach 6 percent per annum.
- Increasing annual private sector investment in Punjab to USD 17.5 billion by 2018
  - The investment activity has been below the target, however, large opportunities exist in the wake of CPEC early harvest programs which include industrial cooperation. However, Punjab’s statistical department still has to build the requisite capacity to measure provincial investment numbers.
- Creating 1 million quality jobs every year in Punjab
  - While this is a stated objective, it is pertinent to mention that there is no formal data source at the provincial level to assess this target.
- Training 2 million skills graduates in Punjab by 2018
  - Punjab is on target on this objective. By June 2017 over 1.5 million have already been trained.
- Increasing Punjab’s exports by 15 percent every year till 2018
  - At the national and provincial levels there has been a steady decline in exports over the past two years. Thus this target is unlikely to be met by 2018.
- Achieving all Millennium Development Goals (MDGs) and targeted Sustainable Development
  - Pakistan only met 9 out of the 40 MDGs and Punjab’s performance was the same. However, multiple initiatives by the Punjab Government are helping the province move towards compliance with SDGs.
- Narrowing security gap with regional neighbors such as India and Bangladesh by reducing crime and improving law and order situation in Punjab
  - Several initiatives of the government have improved security situation in the province in the last two to three years.

The Growth Strategy then goes on to identify the following main drivers that will play a critical role in transforming Punjab and help achieve the above objectives:

- Catalysing Punjab’s GDP growth by increasing the productivity of factors and resources via improving the investment climate (by upgrading infrastructure and addressing energy shortage), institutional and governance reforms and tapping into new sources of growth such as better functioning cities and urban clusters.
- Private Sector-led economic growth will require a conducive environment and policies which will help revive private sector investment.
- Employment-intensive economic growth that will require a focus on employment-intensive sectors and creation of quality jobs by addressing critical gaps in human capital.
- Export buoyancy to be driven by a focus on export-oriented economic growth.
- Complete social sector coverage to be embedded in the provision of quality education, healthcare and social protection for the poor and vulnerable.
- Effective security through improving governance, law and order.

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As mentioned before, the Growth Strategy is a more focused document which identifies critical sectors of the Provincial Economy to target in order to achieve sustainable growth. These are Manufacturing, Skills development, Urban Development, Agriculture and Livestock, Education, Preventive Health and finally Population and Demographics.

The following is a brief summary of each of these sectors and the interventions proposed by the Strategy:

The Strategy identifies Manufacturing and Industrial development as the engine for growth and employment generation. It outlines improving industrial estates through the provision of critical infrastructure (energy, effluent treatment), creating clear property rights and improving one-window facilitation; and reducing the cost of doing business particularly in industrial clusters by improving the provincial regulatory framework. The Strategy underline the important coordination role between the provincial and federal government required to overcome shortage of electricity, improve unfavorable trade policy hampering exports, improve restrictive international market access and enhance product quality and safety standards. In terms of sectors, readymade garments is identified as a strategic sector the province should focus on, as it is both labour intensive and low on energy demand4.

A necessary condition for manufacturing sector competitiveness and growth is requisite human capital and skills development. The Growth Strategy puts forward a market based skills strategy centered on a) good quality skills training with market demand; b) putting in place measures that lower the cost of accessing these skills’ training opportunities and c) maximizing the return to skills’ training opportunities through complementary interventions that strengthen linkages of trainees with jobs and markets. The Strategy has set a target of training 2 million workers by 2018 and aims to improve the economic and non-economic returns to skills training5.

The Strategy also focuses on Urban or City development. Cities are considered hubs of growth where a conducive and competitive environment can lead to higher investments and skilled employment. Punjab is urbanizing rapidly and cities face a host of problems hampering them from realizing their full economic potential. The Strategy proposes a range of measures to improve the economic vibrancy and livability of cities and towns. The Government aims to increase private sector investment in urban areas, and help reduce the chronic shortage of housing, infrastructure and public services. Measures and interventions include improved land records, better building regulation, mass transit schemes, clean drinking water, sanitation, and solid waste management etc6.

While cities and manufacturing are regarded as engines of growth, the Strategy also highlights the fundamental importance of the rural economy. It puts forwards a set of recommendations and interventions to improve both agricultural productivity and the state of the dairy sector. Some of these interventions are: improving agriculture extension and education; better on-farm water management; improving the quality, availability and use of agriculture inputs such as seeds, fertilizers, pesticides, machinery and credit. The Strategy also aims to create better value chains, improve connectivity of farms with markets; promoting high-value agriculture; better use of energy for agriculture; improving land resources and environment, by tackling water logging and improving soil quality, and mitigating the impact of climate change; increasing the area under cultivation; implementing critical regulatory and institutional changes to improve the business climate in agriculture and facilitate the private sector to establish agriculture markets7.

For the Dairy and Livestock Sector, the strategy outlines a detailed set of interventions aimed at increasing per ar productivity. These range from genetic improvement, cross breeding and compliance to international standards; increasing the coverage and results of extension services; improving animal husbandry; improving regulation in livestock sector and the functioning of livestock markets, and focus on transformation of livestock business from subsistence to commercial ventures. The Strategy also focuses on developing and implementing a Livestock Export Strategy; bringing livestock farmers into the formal sector through collective services and adoption of modern techniques such as e-monitoring while encouraging farmers to use modern technology8.
The Strategy underscores the importance of an educated workforce for the adoption of more efficient production technologies and improved labor productivity. Education is the vehicle for economic mobility for the burgeoning young population in Punjab. The Strategy focuses on demand-side interventions to increase the demand for education amongst the poor and vulnerable groups. Proposed measures include, cash transfers to enhance enrolment; public-private partnerships to improve the quality of education; and regulation and monitoring of school performance. To improve the quality of learning, the Government will empower the District Education Authorities as per the Punjab Local Government Act 2013. At the same time training of post-secondary students in work-related or vocational skills is envisioned by the Strategy.\footnote{ibid}

Punjab has a fast growing, predominantly young population. In order to check the increase in population growth the Strategy aims to increase resource allocation to reduce fertility by strengthening the Population Welfare Program; ensures contraceptive procurement and availability; undertake capacity building of the Population Welfare Department while expanding the coverage of the department to uncovered areas. The objective of the Strategy is to also improve the performance of the Lady Health Worker (LHW) program by improving their incentives, monitoring their activities and providing them with adequate supply of inputs. To meet the growing need for family planning and for tackling inequality within the province, engagement of Population Welfare mobile units, community volunteers and subcontractors is also considered.\footnote{ibid}

Finally, the Growth Strategy prioritizes preventive healthcare relative to curative healthcare. The following interventions are proposed: ensuring uninterrupted supply of essential medicines at all public health facilities; creating an extension program of basic drug information targeting vendors/pharmacists for infectious diseases, hygiene and family planning; creating a system for the diagnosis of major infectious diseases at primary health facilities; seeking improvements in the management of health system and outsourcing some parts to the private sector; linking health provision with social protection programs to provide protection to poor households against large expenditures on health, through health insurance tools; establishing a disease surveillance system using modern technology.\footnote{ibid}

II. Major provincial programs and allocations in line with the Punjab Growth Strategy 2018

The more modest growth rates (as opposed to desirable growth rates) are the outcome of targeted investments and programs of the government.

This section summarizes current programs of the provincial government and their respective budgetary allocations. The program description and analysis across various sectors of the Province has been discussed in detail in the Punjab Economic Report 2017. These programs have been developed in accordance with the drivers and objectives of the Punjab Growth Strategy 2018 described in the section above.

Industries, Commerce, Investment and Skills

The Growth Strategy targets creation of equitable jobs, export led growth and an improved investment climate. The Provinces, Industries, Commerce, Investment and Skills Sector therefore has developed a strong work plan that is aimed at achieving this. The current interventions are aimed at:

- Improving the investment climate and business environment in the province to attract domestic as well foreign investments;
- Easing out the cost of doing business and addressing business environment and regulatory issues, to enhance profitability and scale of businesses; P&DD for this purpose has established an Investment Climate Reform Unit (ICRU) to bring about regulatory reforms to ease the cost of doing business;
- Investing in equitable industrial infrastructure with special focus on relatively deprived districts of the province;
- Addressing the market failures in the skills market, creating inclusive and equitable opportunities not only for acquisition of skills but also for employment and entrepreneurship;

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• Strengthening the regulatory environment to increase safety at work place and ensure that industries meet acceptable quality standards;
• Reforming the policy space to ensure industries and businesses of all sizes and origin are enabled to contribute to the economic success of the province.

Some of the key investments that the government is currently making include:

• Spending PKR 8 billion to establish a state of the art Quaid-e-Azam Apparel Park at Sheikhupura. It is expected that the park will generate at least 500,000 productive jobs. The Park is also being used as a key attraction for Chinese investors under the CPEC industry re-location plan.
• Cost of Doing Business in the Punjab is still higher than other major competing economies. In order to reduce this, the government is spending around PKR 58 million to create an E-portal for business registration. This will reduce the human contact element in the registration process significantly, thus making it easier for businesses to start operations.
• Various reports by independent bodies have raised concerns on the difficulty of dealing with government’s inspectorates of labour, environment, land and other similar departments. To improve the regulatory constraints the department is establishing One Window Service Service Centers for facilitation of investors/ industrialists by spending PKR 79 million.
• The growth strategy has an ambitious target of developing and improving the skills of 2 million graduates by 2018. The government’s main delivery intuitions for skills include TEVTA and PVTC. Each have been allocated PKR 2 billion to achieve this magnanimous yet a necessary target. Additionally, PKR 900 million has been given to Punjab Skills Development Fund (PSDF). Over 1.4 million graduates have already been trained since this target was conceived in 2014.
• The government realizing that the wage employment in the province will grow slower than the labour force. Thus, it is spending PKR 3 billion under the Chief Minister’s Self Employment Scheme that will provide loans to skills graduates to set up their businesses. The total allocation to self-employment schemes in the Punjab has crossed PKR 10 billion.
• A cluster development initiative has been launched in partnership with UNIDO at a cost of PKR 588 million. The money will be spent to take specific initiatives for cluster building in key export sectors such as surgical, garments, auto-parts, leather footwear, and goods and other key sectors.
• In addition to hard investments, the Growth Strategy requires substantial soft interventions aimed at policy reforms in the province. The province’s current agenda for the industries, investment and commerce sector include:
  • Creating of Industrial Regulation Authority Punjab (IRAP). This will develop standards on safer industrial units to enhance work space quality
  • A land lease policy is being developed for providing suitably priced land for industrial development at industrial zones.
  • A policy framework has been developed to initiate a policy response to issues and challenges being raised with enhanced CPEC traffic.
  • A provincial industrial policy and an industrial estate management policy is also being framed and are expected to be launched this year.

Agriculture Sector

Agriculture is still the main sector in terms of employment creation in the Punjab and absorbs more than 50 percent of the labour force. The Growth Strategy 2014 emphasizes making the sector more dynamic through key investments improving productivity and value addition. In the light of this the government’s current plan has allocated around PKR 140 billion for the development of the sector.

In the light of Growth Strategy recommendations, the government’s current portfolio shows a high degree of alignment. More specifically, the 2017-18 investments include; (i) Around 14 billion to be spent on crop productivity; (ii) a similar amount to be spent on regulatory and institutional changes to address key market failures; (iii) PKR 12 billion to be spent for more productive use of energy by the sector; (iv) PKR 19 billion to enhance the crop cultivation area; (v) over PKR 5 billion to upgrade key elements of the value chains of high value added products;
(vi) PKR 5 billion for better land use and environment management and; (vii) PKR 1.5 billion to increase high value added agriculture.

The interventions listed above are to be managed by; (i) implementing the Punjab Irrigated Agriculture Productivity Improvement Programme (PKR 40 billion); (ii) Establishment of Model Agriculture Villages in the Punjab; (iii) Establishing a PKR 2 billion Agriculture Investment Fund for testing innovations in agri-marketing and; (iv) Establishment of the Agriculture Commission to steer the over policy framework for the sector.

On the social side, Kissan Package with an allocation of PKR 100 billion is the flagship programme. The programme will be targeting to provide subsidized Urea, DAP and Potassium to over 5.2 million farmers. An interest free credit facility will be extended to over 600,000 farmers to invest in better harvesting tools and equipment. PKR 20.5 billion subsidy on agriculture tube wells across Punjab and establishing commodity storage facilities for farmers. The programme will also provide 6,000 modern laser land levellers and will install high efficiency irrigation system on 20,000 acres. Overall, the agriculture portfolio of the government is now well designed to address the challenges of productivity and value addition in the sector.

Social Sector Coverage

One of the six pillars of the Growth Strategy include comprehensive social sector coverage to ensure meaningful progress towards meeting the Sustainable Development Goals (SDGs). The strategy expects this to result in human and skill development and productivity enhancement. Consequently, government’s investment in the key social sectors have increased significantly over the last two years. The following is a brief summary on the initiatives:

Education

The government has allocated almost PKR 300 billion for the development of School Education in the province. Although the statistics in Punjab are much better than national averages, several gaps in the provision of basic education still exist. Most of these gaps relate to quality of school infrastructure, teacher quality and learning outcomes. In order to position itself better against the SDGs the key investments by the province include:

• Empowering District Education Authorities by allocating PKR 230 billion for development of district level school improvement programmes. The government has also equipped newly established Authorities with a host of well-designed Rules and Financial Regulations. This intervention is aimed at having a direct impact on the service delivery aspect of school education in the province.
• Punjab Education Foundation (PEF) over the years has worked on innovative models of school development and education improvement, by partnering with low cost private schools. PEF to date has partnered with over 3,500 schools and over 2.5 million students have benefitted from this. Moreover, the Education Voucher Scheme has been a flagship programme aimed at the most deprived students, especially girls. In light of this the government has, therefore, allocated another PKR 17 billion to PEF under the next plan to expand the scale of interventions.
• In terms of improving infrastructure and school management, the government has established Punjab Education Initiative Management Authority for inclusion of private sector management of low performing government schools. An amount of PKR 7 billion has been allocated. To date over 4,200 schools have been handed over to the private sector under the Public School Support Programme. Another PKR 2 billion is being spent to improve missing facilities at schools and a special programme Khadim-e-Punjab Ujala Programme is being planned to solarize 10,000 schools across the province that do not have access to main line power.
• Teachers play a pivotal role in early grade learning. 300,000 posts of teachers are being upgraded to bring in better qualified teachers into the system. Moreover, Directorate of Staff Development has worked with donor funded innovation projects such as the District Delivery Challenge Fund under the Sub-National Governance-Punjab programme to develop better models of teacher training using the technology advantage of the province. These programmes are being strengthened and rolled out across the province.
• Other targeted programmes include; (i) Zever-e-Taleem Girls Stipend (PKR 6.5 billion); and (ii) provision of free text books (PKR 3.5 billion). Both these programmes are aimed at improving access of most deprived students. Moreover, to improve the Higher Education Sector, the government has allocated development funding of PKR
45 billion over the next year. A major initiative includes enhancing the scale of Punjab Education Endowment Fund to PKR 22 billion. The Fund will aims to benefit around 350,000 students annually. An additional PKR 20 billion has been used to provide free laptops to deserving students under the Chief Minister Laptop Scheme. The total number of beneficiaries will be over 425,000 students. The government has also initiated work to establish Khawaja Farid University of Engineering at Rahim Yar Khan. The Information Technology University established at Arfa Technology Center is being moved to a purpose built campus at Badiyan Road Lahore. Finally, PKR 800 million is being made available for merit and need-based scholarships for higher education.

Health

Improving health outcomes is likely to have a substantial impact on overall productivity of the workforce in Punjab, a key pillar of the Growth Strategy 2014. Whereas, a large private sector network of health providers has developed in the province, health services are still considered a pure public good for a large segment of the deprived/poor population of the province. Given the importance of the sector, the government has allocated over PKR 260 billion to the sector.

Under the preventive side of primary and secondary healthcare the government’s investments are geared towards:

- Almost a billion rupees are being spent for the prevention of Hepatitis in the Punjab. A large amount of published literature shows that hepatitis is an asymptotic disease and has a permanent impact on the health of the individual resulting in loss of earning and productivity. Thus, the intervention is in line with the objectives of the Growth Strategy.
- In order to achieve key SDG targets, the government has also initiated several flagship programmes. The key ones include; (i) PKR 1.7 billion under the expanded immunization programme; (ii) Investment of PKR 1.6 billion in the Integrated Reproductive Maternal, Newborn and Child Health (IRMNCH) and Nutrition Programme to improve maternal and child health indicators; (iii) TB, HIV and Infection control programmes and; (iv) programme for the prevention and control of non-communicable diseases.

On the curative side, Government’s initiatives that are in line with the Growth Strategy targets include: Investments of PKR 14 billion for the revamping and upgradation of 40 DHQ and THQ hospitals across the 36 districts. This is likely to provide a much needed stimulus to respond to the exceeding health needs of the citizens. The areas of medicine management, procurement, distribution and quality are a prime focus of the provinces health management team. The government undertook a series of crackdowns against manufacturers of spurious medicines. Moreover, the government has also automated and centralized the process of medicine procurement to avoid pilferage and corruption. The automation has also been tested out in Sheikhupura up till the BHU level by introducing a central inventory management and pharmacy solution. This is likely to be expanded across the province.

Other key initiatives include; (i) establishment of a rural ambulance service across the province to address issues of safe child birth; (ii) establishment of 100 mobile health units for under-serviced areas; (iii) modernization of the Drug Testing Laboratories at a cost of PKR 960 million; (iv) experimenting with the outsourcing of management to private sector and similar other initiatives.

Under the Specialized Healthcare the key government initiatives include; (i) A 320-bed Pakistan Kidney & Liver Institute & Research Center in Lahore at a cost of PKR 19 billion; (ii) Establishment of 3 new medical universities in Rawalpindi, Multan and Faisalabad; (iii) Addition of 2000 beds across Punjab based on need and utilization rates of facilities and; (iv) after the implementation of Phase 1 of the health insurance scheme benefitting 1.3 million families, the second phase is being launched at a cost of PKR 2 billion.

Under the WASH sector, the capstone programme has been the Khadim-e-Punjab Saaf Pani initiative to provide potable water to the rural population of Punjab. The programme will initially focus on Southern Punjab and the current allocation to the initiative is around PKR 25 billion. Moreover PKR 50 billion is being spent to improve rural water supply and drainage systems.
Inclusivity and Gender Focus

One of the key outcomes expected under the Growth Strategy 2014 is equitable development. Chapter 2 of the report goes in detail in profiling regional disparities in the Punjab. To address this, the provincial government is making a large number of investments in the South Punjab. The key initiatives include:

- Dualisation of Lodhran-Khanewal Road
- Dualisation of Muzaffargarh-DG Khan Road
- Establishment of Khawaja Farid University of Engineering and Information Technology in RY Khan
- Establishment of Veterinary University Bahawalpur
- Establishment of Safe Cities Project at Multan and Bahawalpur
- 50 percent share of South Punjab in provision of laptops
- Provision of missing facilities in schools in Lodhran, Vehari, RY Khan, Rajanpur and DG Khan
- Construction of 8 new colleges
- Provision of Solar Power to 10,000 households

Moreover, the ADP Strategy emphasizes building special programmes for the ten poorest districts of the Punjab.

Improving Gender Balance

To enhance the gender balance in the Punjab, the government has announced a Women Empowerment Package 2017. The salient features of the package include; (i) formulation of the Punjab Gender Policy; (ii) 14 Mobile Health Units with mammography facilities; (iii) legal reforms in Christian Family and Inheritance Laws; (iv) SME Business training for 16,600 women entrepreneurs and; (v) establishment of Women Business Incubation Centers in Chambers in 8 cities.

In addition, other initiatives targeted for women development include:

- PKR 12.7 billion provided to 670,000 rural women under Chief Minister’s Self Employment Scheme;
- Skills training provided to 106,000 women;
- Establishment of 75 Day Care Centers;
- Amendment in 18 laws relating to protection and empowerment of women;
- Women help desk provided in 98 percent of the police stations in the Punjab;
- 24/7 helpline established for women.

Safety and Security

Effective safety is another key pillar of the Growth Strategy 2014. The 2014 Strategy states that in order to be an attractive place for economic activity Punjab has to work on improving its security profile and image. In order to achieve this, the Government’s Punjab Safe Cities Programme has been launched. The programme includes establishment of integrated command, control and communication centres to make Punjab safe, peaceful and prosperous. Besides Lahore the programme is being implemented in Faisalabad, Rawalpindi, Gujranwala, Multan, Bahawalpur and Sargodha. The key features include:

- Integrated emergency response systems
- Counter terrorism surveillance through 8,000 street cameras
- Intelligent traffic management system
- Mobile application for curbing women harassment
- Inter Police Long Term Evolution Advance Communication
- Facial Recognition from Criminal Record Data
- Establishment of the Dolphin Force.

In total PKR 198 billion have been committed for enhancing the security environment of the province.

Similarly, significant investments have been made in the power and energy sector (see chapter 9). The urban facilities in major cities have also improved significantly with major investments in metro systems, public transport
III. The CPEC Opportunity and Challenges

CPEC is an opportunity to put Punjab’s economy on a higher trajectory via higher public and private investment and also regulatory reform to lower costs of doing business and improving the investment climate. This section reviews and summarizes the growth enhancing implications of CPEC related initiatives.

The China–Pakistan Economic Corridor (CPEC) represents a USD 46 billion portfolio of projects including highways, port development, power generation and an optic fiber project. The planned investments target some of the most critical infrastructure gaps in Pakistan.

The 3000 km China Pakistan Economic Corridor (CPEC) is the flagship project of the One Belt One Road Chinese vision. By connecting the Western province of China with Gwadar, China aims to renew the Old Silk Route in linking China to more than 60 countries in Asia and Europe by land and by sea, opening access to the Middle East. On account of Pakistan’s strategic location, it is receiving the largest Chinese investment under this initiative for the development of trade and energy infrastructure (roads, railways and pipelines).

As mentioned before, the China–Pakistan Economic Corridor (CPEC) is a potential growth vent not just for the country as a whole but also for Punjab’s economy. Punjab which constitutes 55 percent of the national output and, has a major role to play in galvanizing and transforming CPEC investments into long term sustained economic growth. However, this positive opportunity critically depends upon strategic planning by the Provincial government for the three main sectors of the economy – manufacturing, services and agriculture. The following is a summary of the potential impact of CPEC on the three sectors of the provincial economy and recommendations on how to derive the maximum benefit from this opportunity.\textsuperscript{12}

Industrial development

Industry in Pakistan can look forward to an alleviation of the energy constraint that has been identified as the single most crucial bottleneck in growth and competitiveness. In addition, CPEC will improve transport and connectivity throughout the length of Pakistan, which is vital for domestic and regional trade. China is also an important trade partner for Pakistan, and in so far as the anticipated ease in trade results in cheaper imported inputs and machinery for industrial units in Pakistan, and a large consumer market for Pakistan’s products, Pakistan has much to gain. Nine Special Economic Zones (SEZs) specific to CPEC have been notified across the country, with land for a 5000 acre industrial park earmarked near Sheikhupura for mixed industry (Punjab - China Economic Zone, M-2 District Sheikhupura). These industrial parks and economic zones are expected to benefit industries, particularly joint ventures and export oriented industries, by offering expedited services and special incentives.

In order to ensure that the CPEC investments maximize the benefits for industry in Punjab, there are several initiatives that the Government of Punjab can take. The first set of initiatives targets the competitiveness of domestic products and their access to regional markets. These include both crosscutting business environment reforms, and the alleviation of sector specific bottlenecks that are impeding growth. Secondly, investor forums are critical in assisting firms in identifying new business opportunities arising from the CPEC. In addition, Pakistan will need to negotiate an effective FTA that provides access to Chinese markets for Pakistan’s traditional export products.

The second set of initiatives needs to target Punjab’s own public investments to ensure Punjab’s readiness for the changes. For example, the development of the core region on the main CPEC road artery is part of the CPEC investments, but developing the “radiation areas” is not. Providing the physical infrastructure to link and develop the areas surrounding the main arteries would ensure that the benefits are spread out and contribute to wider economic regeneration. Readiness for CPEC is not limited to physical infrastructure alone, but also includes business facilitation infrastructure and labour readiness. An educated and skilled labour force, for example, has better technology absorption capacity, is more resilient to structural change, and is able to respond quickly to

\textsuperscript{12}See the relevant chapters of the PER, 2017 for a detailed analysis of CPEC.
changing market requirements.
The third set of initiatives ensures that Chinese investment and joint ventures support those activities that are aligned to Punjab’s growth interests. These include devising an investment incentive strategy to encourage investments from China that help meet Pakistan’s objectives of increased technology acquisition, greater value-addition and exports, and higher quality and quantity of employment, while discouraging those that are environmentally damaging.

Finally, a provincial industrial policy is required, that helps provide a solid understanding of the industrial sector in Pakistan, identifying needs, providing strategic direction and coordinating the efforts of various arms of Government in addressing constraints and needs. This will be useful not just in responding to CPEC, but in planning for any other developments that may arise.

Services sector growth

The services sector can expect improvements in productivity in Punjab by realizing gains from agglomeration economies through investments in road and information connectivity. Improved connectivity can also relieve urbanization and migration pressures for the already populous tier 1 cities in Punjab. In general, reduced transport costs are expected to make services more competitive by making it cheaper to move people and services across larger distances. The corridor and its many passages will connect all parts of the country with Punjab, boosting intra-provincial trade through increased flow of services, goods and people. At the same time, regional connectivity within South Asia and extension to Turkey will allow Punjab to leverage its strong services sector. Of the total investment, $5.9 billion is for roads, $3.69 billion is for railway networks, $1.6 billion is for the Lahore Mass Transit project, while a fibre optic project aimed at improving Pak-China ICT connectivity is worth $44 million. Projects worth $28 billion (or roughly 15 percent of Pakistan’s GDP in 2015) are expected to be completed under Early Harvest (mostly roads) by the end of 2018. Roughly a quarter of this amount ($7 billion) is for immediate transport projects.

It is expected that transport and logistics costs will halve because of CPEC. The benefits of upgrading the transport infrastructure of Pakistan is tremendous, as transport losses have risen from 3.5 percent of GDP in 2012 to an estimated 4-6 percent of GDP by 2017. Most costs arise from the fact that 96 percent of passengers and freight is being carried by road as opposed to much cheaper rail, and the high prices and frequent strikes of the unorganized trucking sector. Punjab already has the strongest transport and urban infrastructure in the country, that takes advantage of its expansive road network (which is the largest in Pakistan, accounting for about 41 percent of all roads as of 2013-14). However, there is room for improvement in western Punjab, and work on the western route of CPEC will provide much needed investment for construction/reconstruction of roads, widening and modernization. Moreover, plans have been included to strengthen provincial and district roads that link the western route with the existing motorway (M2) and highway (N2). CPEC has also given Punjab an opportunity to make strategic investments in southern Punjab to take advantage of improved road density. Many underdeveloped districts of Punjab are proposing that their provincial/district road network density be increased, that interchanges be linked to a dense network of provincial and district roads.

The CPEC will also serve to enhance the rail connectivity of Punjab with the rest of the country and with China. Three big railways projects are a part of CPEC, and Punjab will benefit from the proposed modernization of the ML-1 Karachi-Peshawar rail link (which carries 70 percent of all rail commercial cargo). The three CPEC projects would allow railways to handle 20 percent of all freight cargo (up from 4 percent currently), once CPEC rail projects are completed by 2025. This should help Punjab achieve lower cost shares for domestic transport in the final value of goods. It is estimated that to be globally competitive, the share of (domestic) transportation costs in the final value of goods should not exceed 0.8 percent. As of 2006, domestic transport costs were too high, accounting
for 1.3 percent of the final value of selected goods. It is expected that national savings on non-factor services could be as high as $525 million per year, if companies have cost-effective (external) alternatives to using in-house logistics services.\(^9\) In this regard, the CPEC should increase the feasibility of using co-modal transportation systems comprising rail and road. Evidence suggests that rail is cheaper than roads for carrying cargo over distance exceeding 500km, and given the physical distances between Punjab and the rest of the country, rail should therefore be the primary mode of freight cargo for Punjab.\(^{20}\)

At the same time, the ADB, DFID and WB are assisting the government in implementing its National Trade Corridor Improvement Program (NTCIP 2007-17) that aims to strengthen the trade corridor consisting of roads, ports, and railways that connect Karachi to Punjab, running through the golden triangle and Lahore, Islamabad and Peshawar, all the way to Afghanistan and the Central Asian Republics (CARs).\(^{21}\) In conjunction with the early harvest projects of CPEC which are expected to be completed by 2019, Punjab should witness a remarkable improvement in transportation and logistics in the short-term, a key sub-sector for Punjab.

The benefits to the services sector will be substantially greater than economic estimates suggest due to the positive multiplier effects and spillovers that the services sector generates. In addition, these effects are greater than those for industry or agriculture, given the cross-cutting nature of the services sub-sectors, and the increased “servitization” of the other two sectors. Moreover, CPEC would increase the attractiveness of Punjab as an FDI destination, due to growth in modern services such as finance and insurance, IT and communication, business services, and tourism. It is expected that CPEC will lead to $43 billion in additional private investment.\(^{22}\) Considering this, the Punjab government should immediately commission a study to analyze the impact of CPEC on the Punjab services sector, as it has already done for agriculture and industry. This would necessarily be a crude SWOT type analysis of how Punjab could comprehensively and strategically benefit from the many opportunities that CPEC provides, while safeguarding the interests of Punjab’s services sector through policy support. It is critical that private-sector led development strategies in Punjab encompass the services sector and envision a strategic role for it under CPEC. Broadly, the principal recommendations of this study should cover short- and medium-term strategies to improve competitiveness of Punjab’s services sector by enhancing quality, as well as cutting costs and transit times of trade and transport. This must be done by strengthening national physical infrastructure, private-sector vetted investments, policy interventions and institutional reforms in both the public and private sectors. Policy support extended to the services sector to benefit from CPEC will enable another round of economic activities that would benefit all producers, traders, and consumers.

- While the road network is being strengthened under various projects, and is also the core of a five-year multi-sector plan of the Punjab Government\(^{23}\), investment in the logistics sub-sector of Punjab must be made on an emergency basis. China has recently invested $464 million in 2016 on a logistics complex in an area close to the Pak-China border.\(^{24}\) To prevent the Chinese from dominating transport and logistics under CPEC, Punjab must reach out to the key private sector players and develop an incentive-compatible investment strategy.

- There is an opportunity for transport and logistics businesses in Punjab to become part of a national industry that could be worth as much as $6 billion, even if CPEC manages to divert only five percent of Chinese international cargo.\(^{25}\) Without investment to build capacity, cut costs and maintain competitiveness, the CPEC would be no more than a means of earning transit revenues on Chinese goods passing through Pakistan.

- Private sector and public-private participation (PPP) in infrastructure and finance must be encouraged. A regulatory framework for doing so already exists under the Infrastructure Development Authority of the Punjab Act 2016 (IDAP). Instead of creating a CPEC-specific body, the capacity of IDAP must be strengthened.\(^{26}\)

- The Punjab Government should play an active role in alleviating the existing urban housing shortage in


\(^{20}\)International Trade Center. (2015). Road freight transport sector and emerging competitive dynamics. TRTA II Programme

\(^{21}\)ADB. National Trade Corridor Highway Investment Program 2007-17. Available at https://www.adb.org/projects/40075-043/main


\(^{25}\)Gwadar will emerge as key shipping point.’ 4th March, 2016. The Express Tribune. Available at https://tribune.com.pk/story/1058981/gwadar-will-emerge-as-key-shipping-point/

\(^{26}\)IDAP, Punjab. Available at http://www.idap.pk/sectors/highways.html
Punjab. CPEC has provided Punjab with a unique opportunity to develop planned cities along the main CPEC road links in sparsely populated areas of western Punjab. If the Punjab Government can provide cheap but good quality housing, its new planned cities could be a success. Short of building cities, the Punjab Government could develop satellite towns near interchanges on the western route.

• To ensure that SMEs from Pakistan benefit from CPEC, SMEDA has identified 70 direct interventions as part of its Five-Year SME Development Plan (included in Vision 2025). The services sector in Punjab comprises mostly of SMEs and CPEC could be used as a means of achieving scale and transitioning to modern services in the long-run.

• Considering the infrastructural and regulatory reforms that will accompany CPEC, more reliable energy (CPEC should add 10,400 MW by 2018), and improved internet connectivity expected from the 820 km CPEC Fibre Optic Project that will span the country from Khunjrab to Rawalpindi (with 6 percent of the cable passing through Punjab)\(^2\), exports of IT and IT-enabled services (ITeS) could become more competitive—especially for Chinese markets.

• Given the increased FDI and global attention Punjab will receive due to CPEC, all taxes on services must be streamlined, with minimum tax spread to ensure low costs of doing business. This incentive structure will not only determine domestic entrepreneurship, but also encourage foreign joint ventures (directly or indirectly related to CPEC) to invest in the service ecosystem through trainings as well as technology sharing.

**Agriculture Sector opportunities**

The China-Pakistan Economic Corridor includes provisions for cooperation in the agriculture sector, including cooperation in management of water resources, livestock, and other fields of agriculture. This presents a unique opportunity for Punjab, not only to benefit from investments in agricultural infrastructure, but also to exploit the potential for trade with China.

The current Long Term Plan for cooperation in agriculture includes the following focused areas:

• **Planting and Breeding:** Agricultural modernization along the corridor; guiding agricultural mechanization and scale production; demonstration projects in Punjab of improved varieties to improve productivity

• **Agricultural Products Processing:** Introducing modern agricultural product processing equipment and facilities; an agricultural industry cluster could be built around Islamabad and Lahore to create a processing base which satisfies international standards.

• **Storage and Transportation of Agricultural Products:** Warehousing and logistics facilities in Islamabad and Lahore to form a warehousing and logistics network system connecting cities and covering the area along the corridor.

• **Infrastructure Construction:** An agricultural mechanization demonstration and leasing center in Punjab to promote drip irrigation under plastic film, other water-saving agricultural techniques, and protected cultivation for the development of facility agriculture.

• **Epidemic disease prevention and control:** A plant and animal disease prevention and control system should be established in Faisalabad and Lahore to reinforce R&D in view of the current cotton leaf roll virus and other plant viral diseases.

These focus areas target critical gaps in Pakistan’s agriculture requirements, and the realization of effective projects in these areas would be important in boosting the sustainability, productivity and competitiveness of Punjab’s agriculture sector. It will be important for Punjab to identify specific technologies and projects in consultation with the private sector, that can benefit from Chinese investment, and to ensure that the investments are targeted and realized.

In addition, China, with an annual food consumption of US$ 1 trillion, has a large and growing consumer market in agricultural products, including processed food. Food exports to China have increased substantially for several countries including the USA, Brazil and Australia. Pakistan can benefit from its location by exploiting the distance advantage, particularly in the export of food and value added agricultural commodities. The top six categories

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\(^2\)Fibre Optic Project under CPEC. Available at http://cpec.gov.pk/map-single/3
of Pakistan’s exports to China in 2015 were all sourced in agriculture, with the highest value of exports being in cereals, followed by beverages, spirits and vinegar; edible fruit and nuts or citrus fruit; lac, gum, resins and other vegetable extracts; residue from food industries including prepared animal fodder. Even though Pakistan’s structure of trade with China is heavily dependent on agriculture, there have been a few missed opportunities. Despite the geographical advantage and an FTA, Pakistan’s agricultural commodities exported to China have not increased substantially.

The government of Punjab can leverage the opportunities presented by CPEC by focusing on the following areas:

- Examining and negotiating existing tariff structures with China, and ensuring that they are at least at par with those faced by other countries and trade associations such as ASEAN.
- Evaluating Non-Tariff Barriers (NTBs) including Sanitary and Phytosanitary (SPS) requirements imposed on goods sourced in Pakistan, supporting the agriculture sector in meeting the necessary requirements, and negotiating any non-necessary NTBs.
- Boosting R&D in the agriculture sector to develop varieties that have growing Chinese and international markets, such as seedless varieties.
- Addressing existing market distortions that adversely affect both the volume and direction of trade and encouraging market based reforms in the agriculture sector.
- Using CPEC cooperation and technical expertise to improve infrastructure networks, particularly those focusing on irrigation, water supply and post-harvest storage and marketing.
- Institutionalizing public-private partnerships, especially in the area of post-harvest storage, handling and marketing.
- Incentivizing exports through informational interventions (an alternate to direct price and quantity-based interventions).